

Askesis - Religion - Science

Pythagorean Knowledge from the Ancient to the Modern World

PYTHAGOREAN KNOWLEDGE FROM THE ANCIENT TO THE MODERN WORLD: ASKESIS, RELIGION, SCIENCE

*Edited by
Almut-Barbara Renger und Alessandro Stavru*

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Episteme in Bewegung

Beiträge zu einer transdisziplinären Wissensgeschichte

Herausgegeben von Gyburg Uhlmann
im Auftrag des Sonderforschungsbereichs 980
„Episteme in Bewegung.
Wissenstransfer von der Alten Welt
bis in die Frühe Neuzeit“

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Preface

Andrew James Johnston and Gyburg Uhlmann

Since its inception in July 2012, the Collaborative Research Centre (CRC) 980 “Episteme in Motion. Transfer of Knowledge from the Ancient World to the Early Modern Period”, based at the Freie Universität Berlin, has been engaging with processes of knowledge change in premodern European and non-European cultures.

The project aims at a fundamentally new approach to the historiography of knowledge in premodern cultures. Modern scholars have frequently described premodern knowledge as static and stable, bound by tradition and highly dependent on authority, and this is a view that was often held within premodern cultures themselves.

More often than not, modern approaches to the history of premodern knowledge have been informed by historiographical notions such as ‘rupture’ or ‘revolution’, as well as by concepts of periodization explicitly or implicitly linked to a master narrative of progress.

Frequently, only a limited capacity for epistemic change and, what is more, only a limited ability to reflect on shifts in knowledge were attributed to premodern cultures, just as they were denied most forms of historical consciousness, and especially so with respect to knowledge change. In contrast, the CRC 980 seeks to demonstrate that premodern processes of knowledge change were characterised by constant flux, as well as by constant self-reflexion. These epistemic shifts and reflexions were subject to their very own dynamics, and played out in patterns that were much more complex than traditional accounts of knowledge change would have us believe.

In order to describe and conceptualise these processes of epistemic change, the CRC 980 has developed a notion of ‘episteme’ which encompasses ‘knowledge’ as well as ‘scholarship’ and ‘science’, defining knowledge as the ‘knowledge of something’, and thus as knowledge which stakes a claim to validity. Such claims to validity are not necessarily expressed in terms of explicit reflexion, however – rather, they constitute themselves, and are reflected, in particular practices, institutions and modes of representation, as well as in specific aesthetic and performative strategies.

In addition to this, the CRC 980 deploys a specially adapted notion of ‘transfer’ centred on the re-contextualisation of knowledge. Here, transfer is not understood as a mere movement from A to B, but rather in terms of intricately entang-

led processes of exchange that stay in motion through iteration even if, at first glance, they appear to remain in a state of stasis. In fact, actions ostensibly geared towards the transmission, fixation, canonisation and codification of a certain level of knowledge prove particularly conducive to constant epistemic change.

In collaboration with the publishing house Harrassowitz the CRC has initiated the series “Episteme in Motion. Contributions to a Transdisciplinary History of Knowledge” with a view to showcase the project’s research results and to render them accessible to a wider scholarly audience. The volumes published in this series represent the full scope of collaborating academic disciplines, ranging from ancient oriental studies to medieval studies, and from Korean studies to Arabistics. While some of the volumes are the product of interdisciplinary cooperation, other monographs and discipline-specific edited collections document the findings of individual sub-projects.

What all volumes in the series have in common is the fact that they conceive of the history of premodern knowledge as a research area capable of providing insights that are of fundamental interest to scholars of modernity as well.

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Introduction

Almut-Barbara Renger & Alessandro Stavru

The majority of the contributions to this volume were first presented at a conference held on October 23–25, 2013 at the Freie Universität Berlin, organized by project C02 of the research centre SFB 980 “Episteme in Motion.”¹ This research centre investigates processes of knowledge transfer in pre-modern European and non-European cultures, building upon the hypothesis that transfers of knowledge take place continuously even when such knowledge is apparently stable. These processes are often subcutaneous, and frequently take place over a long period of time; they both create differentiations within the transmitted information and integrate new data. Processes of knowledge transfer do indeed involve an attempt to fix knowledge, to pass it on, and to codify it, but this movement also entails discarding previously established knowledge. As a consequence, every transfer of knowledge entails a negative aspect, that is, the loss of notions or, in some cases, the loss of entire bodies of knowledge.

This background is especially illuminating in the case of the Pythagorean tradition. The teachings and doctrines attributed to Pythagoras show in a paradigmatic way how knowledge undergoes transfers and modifications even when it is commonly considered to be stable. In fact, within Pythagoreanism the transfer of knowledge takes place in at least three ways: a) bodies of knowledge are passed on, fixed, codified, or discarded within the different epochs and contexts of Pythagoreanism; b) the transfer of knowledge takes place between a variety of textual genres and diverse argumentative contexts, which in turn influence and transform this knowledge; c) the transfer of Pythagorean knowledge occurs between different social circumstances, institutional conditions, and geographical areas – all of which are factors that manage to generate ever-new forms of knowledge, which depend on the practical and theoretical environments.

Such modes of knowledge transfer can be observed in Pythagoreanism from the very start. Immediately after his death, the name of Pythagoras was used to legitimize and authorize various forms and strands of knowledge, including religious, philosophical, and scientific doctrines. In the Classical period, Plato took over important aspects of Pythagoreanism, as did the Old Academy with its

1 A detailed conference report (in German) can be found online: http://www.sfb-episteme.de/Listen_Read_Watch/berichte/Pythagoras-Tagung_Renger/index.html (accessed 01.01.2016). The present volume also contains contributions that were not delivered at the Berlin conference.

mathematical doctrines. In the Hellenistic period, a rich pseudepigraphic tradition ascribed to Pythagoras himself or to his pupils made it even more difficult to distinguish the original teachings of Pythagoras from the doctrines of the Pythagoreans and from the doctrines attributed to them by non-Pythagoreans. In our main source on Pythagoras, the *Vitae* of the imperial age, his life and teaching were systematically idealized through embellishing anecdotes. It is difficult, if not altogether impossible, to determine who Pythagoras really was, and what kind of knowledge he produced and transmitted. Nonetheless, both in ancient and modern times this vacuum has invited various attempts to fill the gap. In literature, art, religion, philosophy, and science two juxtaposed understandings have come to the fore: on the one hand, Pythagoras is seen as a religious leader, and on the other as a philosopher and scientist.² Already in antiquity these understandings led to very different approaches to Pythagorean knowledge, yielding a variety of interpretations that are still debated in contemporary scholarship. Accordingly, in the last century two approaches to Pythagorean knowledge became dominant: on one side we find the study of its shamanic and religious aspects, which were traced back to the legend of Pythagoras himself,³ and, on the other, the analysis of its philosophic and scientific aspects, which often entailed the attempt to minimize or even negate the irrational elements of proto-Pythagoreanism.⁴ It should be noted that in ancient Pythagoreanism both these forms of knowledge were characterized by a radical claim to truth – that is, they were both considered to be epistemic bodies of knowledge, albeit of different kinds.

Various attempts have been made to connect and harmonize these bodies of Pythagorean knowledge. The seminal works by Burnet, Cornford, and Guthrie presented Pythagoras as both a religious leader and a scientist.⁵ Yet, given that such reconstructions invariably contained contradictory aspects, in more recent years we have seen a trend towards isolating these two bodies of knowledge and analysing them singly.⁶ The result has been that the manifold kinds of Pythagorean knowledge have often been studied separately, and the contexts of their origin, transmission, and dogmatization have retreated into the background.

The goal of the present collection is to reverse this trend. The volume addresses the question whether and to what extent the practical knowledge of Pythagorean agents transmitted in the *akousmata* and *symbola* – with the ascetic and “superstitious” aspects presented by institutionalized precepts and rules of life – is related to more doctrinal fields of knowledge such as religion and science.⁷ This

2 For an overview of the history of Pythagoras’ reception, see Renger / Ißler 2013.

3 See especially Dodds 1951, Burkert 1962/1972, and Kingsley 1995 and 2010.

4 This approach was championed in the past by Zeller 1886. See, most recently, Zhmud 2012.

5 Burnet 1908, Cornford 1922/1923, and Guthrie 1962.

6 See the works by Carl Huffman, especially 1993 and 2005.

7 It is, for example, a well-known fact that the doctrine of the migration of the soul exerted great influence both on the Pythagorean “rules of life” and on more abstract theories about the nature of the cosmos. See e. g. von Fritz 1963, 242.

aim should not conceal the fact that substantial tensions arose within the Pythagorean community quite early on, eventually leading to a split between those who took Pythagorean knowledge literally and ritualistically (the *akousmatikoi*, who were dealing with the mere “fact,” the *hoti*), and those who interpreted it from a rational viewpoint (the *mathematikoi*, who were concerned with the “reason for the fact,” the *dioti*).⁸ These tensions imply that the different strands of Pythagorean knowledge underwent multiple changes from the outset. The teachings of Pythagorean leaders were interpreted differently depending on the level of initiation of the followers. This led to multifarious transformations, transmissions, and eventually also institutionalizations of Pythagorean knowledge: already in the fourth century BC rationalistic and dogmatic interpretations of the same doctrines and prescriptions were found side by side, resulting in a lack of clarity as to their authenticity. This trend was taken further in Late Antiquity, when scientific tenets and acousmatic rules formed an inextricable complex, as the biographical tradition on renowned Pythagorean leaders and actors unequivocally attests.

Considering these difficulties, this volume aims to reconcile aspects of Pythagorean knowledge which in modern scholarship are often considered to be heterogeneous if not altogether incompatible. The attempt is to show how and to what extent the religious and scientific bodies of Pythagorean knowledge are mutually intertwined. In this respect, an important part is played not only by the “original” literature on Pythagoras and proto-Pythagoreanism (Aristoxenus of Tarentum, Dicaearchus of Messene, Heraclides Ponticus, and Timaeus of Tauromenium), but also by the later *Vitae* (by Diogenes Laertius, Porphyry, and Iamblichus), whose biographical information is also useful for understanding the earliest phase of Pythagoreanism. The volume tackles the transfer of knowledge within Pythagoreanism from Early Antiquity to Early Modernity but also, within this process, grapples with the connections between the different strands of this knowledge, that is, between the epistemic doctrines of Pythagorean science and religion and the practical wisdom extant in the tradition of *akousmata* (e. g. rules related to way of life, moral precepts and taboos concerning the community of goods, and the involvement of women in politics and intellectual life).

Yet, how should one define these diverse fields of knowledge? Or, to formulate the question more sharply, where is the line to be drawn between what is epistemic and what is not epistemic in Pythagorean knowledge? *Is there*, in fact, such a limit? Modern scholarship has given no definite answer to these questions, and even in antiquity there is no consensus as to which doctrines, beliefs, and life practices constitute the distinctive, feature of Pythagoreanism and which do not. There even seems to be, from ancient to modern times, a general disagreement

8 On this split see Burkert 1972, 192–193; Kahn 2001, 15; Huffman 2006; Riedweg 2007², 139–142, and, most recently, Horky 2013, 4–35 (who identifies the *mathematikoi* with Aristotle’s *kaloumenoi*).

about what exactly Pythagorean knowledge is. This difficulty is directly related to the problems that arise from the textual evidence we have on Pythagoreanism.

To take one example: It is striking that a major source such as Aristotle gives very different accounts of Pythagoreanism. In his extant writings he dwells mostly on its epistemic aspects, whereas in his lost two-book treatise on the Pythagoreans he seems to have presented, in addition to these aspects, what we would call the pseudo-epistemic, or even non-epistemic, features of Pythagorean knowledge.⁹ This ambivalence is paradigmatic for the Pythagorean question, and therefore deserves closer attention.

In his extant writings on the Pythagoreans, and especially in book Alpha of his *Metaphysics*, Aristotle's aim is to provide a survey of his predecessors, the focus of which is not to take into account *all kinds* of human wisdom, but only those which fall into what he calls *episteme*, that is, a knowledge based on scientific principles. In light of these principles, the *aitiai*, Aristotle determines which of his predecessors should be considered a philosopher or not, and which doctrines should be included in or excluded from his enquiry. This methodological stance is very important for understanding Aristotle's account in book Alpha, as it makes clear that he is concerned not with Pythagoreanism as such nor with Pythagoreanism as a whole, but rather with a specific aspect of it, namely its scientific doctrines as they apply to cosmology, arithmetic, and geometry.

In the fragments of Aristotle's lost treatises on Pythagoreanism we get a somewhat different picture. Here, in addition to doxographical accounts of scientific doctrines, we learn important details about Pythagoras as a miracle-worker and about his school's life practices and ritual prescriptions, which hark back to the tradition of *akousmata*. These legends and rules form a conglomerate that is often at odds with common sense, and therefore difficult to understand from a strictly epistemic point of view.

Thus, in Aristotle – certainly one of the most thorough and important sources on Pythagoreanism – we come face to face with two different kinds of knowledge: on the one hand, epistemic accounts related to the Pythagorean sciences of cosmology, arithmetic, and geometry; and on the other hand, the pseudo-epistemic material which is often (but not always) linked to the religious aspects of Pythagoreanism.

Yet, what is the *connection* between these two kinds of knowledge? Is there, indeed, any connection? These questions go well beyond Aristotle, insofar as they concern the Pythagorean question as such. Moreover, they broach issues that have been much debated in modern scholarship, issues that are of central interest in this volume. First, there is a problem of *continuity*, since we must clarify how different kinds of Pythagorean knowledge evolved over time, were transferred from certain practical and theoretical contexts to other contexts, and thus

9 On Aristotle's account of the epistemic and non-epistemic aspects of Pythagorean number theory see most recently Primavesi 2014, who draws upon Alexander of Aphrodisias' report of Aristotle's lost monograph.

were transformed themselves while remaining connected to their founder and ancestor Pythagoras. Second, there is also a problem of *complexity*, since we are faced with strands of knowledge that are not only highly heterogeneous but also related to disciplines and methodological approaches very different from each other. This means that we cannot explore specific aspects of Pythagoreanism by isolating them from the context to which they belong. As Walter Burkert stated in his widely celebrated book, in order to understand such contexts we must “look for the causes which brought transformation to the picture of Pythagoras.”¹⁰ Such an enquiry requires a “many-sided approach,” in which one does not study one topic or discipline at a time, but rather looks for the multidisciplinary and complex inter-relations between different issues and methodologies. The evidence we have on the epistemic and pseudo-epistemic strands of Pythagorean knowledge suggests that even a basic question such as the identification of what is Pythagorean and what is not, including the question of which texts or actors should or should not be associated with the Pythagorean tradition, must involve the issue of how Pythagoreanism underwent transfers and changes through the centuries while remaining sufficiently stable to be clearly identifiable as a whole.

One aim of the present volume is to explore the connections between the different forms of Pythagorean knowledge as well as among its multifarious transformations and refractions from antiquity to modernity. Looking for such connections entails examining an entire set of questions, some of which constitute major issues in Pythagorean scholarship. For example, what is the link between Pythagoras and his followers? Or between Early Pythagoreanism up to 350 BC and the Neo-Pythagoreanism of the imperial age? Or between the religious and the scientific aspects of Pythagoreanism? Or between the different ways to deal with Pythagorean knowledge, with the “knowing-that” (the *hoti*) of the *akousmatikoi* and the “knowing why” (the *dioti*) of the *mathematikoi*?

To be sure, most of these questions have been addressed since antiquity, and will probably remain unresolved in the long run. Nonetheless, the multidisciplinary and diachronic structure of this volume paves the way to gaining at least a better understanding of them. Its sections are dedicated to topics of Pythagorean knowledge such as Orphism, metempsychosis, way of life, dietetics and medicine, number and harmony, and philosophy. This interdisciplinary approach is coupled with a diachronic perspective that encompasses the earliest extant texts on Pythagoreanism, Aristotle, Neoplatonism, the Christian and Arabic Middle Ages, the Renaissance, and the Early Modern period.¹¹

*

¹⁰ Burkert 1972, 11.

¹¹ This diachronic approach will hopefully contribute to an expanded understanding of the Pythagorean tradition, following the example of a recent treatment of Thales and the Milesians, on whom Georg Wöhrle has provided a collection of textual evidence reaching down to the fourteenth century AD (Wöhrle 2014).

The book is divided into thematic sections, each of which focuses on the diachronic and synchronic transfer processes of Pythagorean beliefs and tenets in a specific area of knowledge. The first section of the book deals with religious issues related to the connections between Orphism and Pythagoreanism. **Alberto Bernabé** focuses on Pythagorean eschatology and distinguishes between Orphic and Pythagorean beliefs in the afterlife. He evaluates Orphic testimonies about eschatology and shows how these were transferred into religious doctrines of Pythagoreanism held in different times and places. He then analyses how these eschatological beliefs can be harmonized with the Pythagorean doctrines of metempsychosis. **Francesc Casadesús** deals with the famous fr. 129 of Heraclitus. He also shows that Pythagoras, and Pythagoreanism, drew on various doctrinal elements of Orphism, such as deploying music as a means to influence other people, the capacity to communicate with animals, and the ability to travel to Hades. Pythagoreanism may also have absorbed the notions of the immortality and transmigration of souls from other religious doctrines, including Orphism, presenting them as its own. Such appropriation could appear to be fraudulent, which leads Casadesús to the conclusion that there are sufficient grounds to argue that Heraclitus' criticism of Pythagoras was not unfounded. **Luc Brisson** analyses the myth reported by Iamblichus on Pythagoras' initiation into the Orphic Mysteries through the intermediary of Aglaophamus, showing how this tale was taken up and refined by later Neoplatonists, thereby undergoing significant changes. This applies in particular to the Neoplatonists of the School of Athens, who interpreted philosophy as an ascent to the divine in which Pythagoras played the role of the initiate. Brisson concludes that Iamblichus portrayed Pythagoras in this way in order to explain why at the Neoplatonic School of Athens metaphysics and theology became indistinguishable.

A major issue for understanding the connections between Orphism and Pythagoreanism is metempsychosis, a doctrine to which the next series of papers is devoted. **Richard McKirahan**'s paper deals with Philolaus' doctrine of the soul. McKirahan shows that by rejecting the doctrine of metempsychosis and the numerology of earlier Pythagorean thought, Philolaus comprehended existing things as products of limiters and the unlimited (B 1, 2, 6), and as a generalization of number according to which the world and its constituents are intelligible, whereby their being depends on numerical essences. The passage of Plato's *Phaedo* in which Socrates holds a discussion with Simmias and Cebes (86b6–7) provides hints for claiming that Philolaus regarded the soul as a *harmonia*. Pythagoras was the first archaic thinker to whom the doctrine of the transmigration of the soul was ascribed; **Sylvana Chrysakopoulou** brings together several Platonic passages that allude to the pre-incarnate state of the soul, and to the vision of truth encountered by the soul before entering the body. Chrysakopoulou shows that Plato's *theoria* has forerunners in Parmenides and in Pythagorean eschatology. Various passages of Plato's dialogues display an "initiate" who is prompted to become the messenger of a beauty that is imperceptible to all other mortals in this

world. Such beauty is a cosmic music (*Resp.* 615a) which reflects the Pythagorean music of the spheres: the three Fates in the myth of Er, who are responsible for the souls' incarnation, are also the singers of a cosmic symphony on the Pythagorean model. **Gabriele Cornelli** also aims to analyse the tradition behind the theory of the immortality of the soul and metempsychosis. The testimonies of Xenophanes, Heraclitus, Ion, and Empedocles suggest that metempsychosis is a proto-Pythagorean theory. This suggestion is made most explicit by Aristotle, who uses the term *mythoi* to refer to the Pythagorean doctrines of the soul. In fact, as Cornelli points out, the Aristotelian lexicon reveals proto-Pythagoreanism as the source for doctrines on the immortality of the soul and its transmigration. The paper by **Bernd Roling** delves into the reception of Pythagoreanism in the Middle Ages. Roling shows that although metempsychosis became the focus of the Pythagorean doctrines known in the Middle Ages, the French theologian William of Auvergne (early thirteenth century) was the first to present a systematic refutation of the Pythagorean transmigration of souls. William's refutation would remain authoritative in later periods (e. g. in Albertus Magnus' *Historia animalium* and in Thomas of Aquinas's *Commentary on the Sententiae*), when Christian eschatology and classic hylomorphism had to defend themselves against the theory of the transmigration of souls.

A crucial issue in Pythagoreanism is the *tropos tou biou*, the "way of life" that characterized those who adopted the Pythagorean lifestyle, to which the next group of papers is dedicated. The Greek West, with its Pythagorean communities in the Classical age, plays a key role for understanding the historical context of the Pythagorean way of life. In his paper, **Maurizio Giangiulio** relies on evidence from Aristoxenus and Timaeus. Both had a profound knowledge of Pythagoreanism: to Aristoxenus we owe the paradigm of a "philosophical" life through social practices and styles of life; to Timaeus the first reflections on the saying *koina ta philon* ("friends hold all things in common") and on Pythagorean identity. Aristoxenus, however, took a polemical stance against Pythagoreanism by contrasting Pythagoras himself with the vegetarians of the same period, thus de-ritualizing the way of life he had been teaching; Timaeus, in contrast, had no knowledge of Pythagoreanism from the inside, and was not involved in the same polemic as Aristoxenus, but his contribution to understanding the Pythagorean *hetairiai* can be compared to that of Aristoxenus. **Claudia Montepaone** and **Marcello Catarzi** analyse the role of the Pythagorean way of life by focusing on Timycha of Sparta and Theano of Croton, whose paradigmatic behaviours can be understood as motivated by an acousmatic background. Both Timycha and Theano are described as models of virtue: the difference between the two is that while Theano teaches, essentially delivering precepts, Timycha enacts them. **Jan Bremmer** discusses the tradition of late antique biographies in connection with the lifestyle of the early Christian monks. A close analysis of parallels between these monks and the Pythagoreans enables Bremmer to conclude that such a lifestyle, as portrayed in Athanasius' *Life of Antony*, was profoundly influenced by Neopythagoreanism.

This influence is also evident in the Christian collection of the *Sentences of Sextus*. **Ilaria Ramelli** shows to what extent this corpus contains Pythagorean ideas, and how Sextus' Christianized Pythagoreanism came to exert an indirect influence upon the spirituality of Christendom. In fact, the *Sentences of Sextus*, which probably date to the late second century AD, are a collection of primarily moral sayings inspired by Pythagorean ethics. Ramelli demonstrates how the Pythagorean substratum of the *Sentences* is adapted to a Christian milieu through careful reworking, and argues that the shift from philosophical to Christian asceticism is the most remarkable feature of this collection. Thus, the *Sentences* provide an interesting instance of the transformation of Pythagorean *askesis*. Porphyry's *Letter to Marcella* also contains a large number of *sententiae*. **Irimi Fotini Viltanioti** claims that Porphyry drew these sayings from a prior collection of Pythagorean maxims, in order to present an exemplum of the proper Pagan-Pythagorean way of philosophical life to readers who were in danger of being attracted to Christianity. By resituating the Pythagorean moral sentences in their traditional context, Porphyry intended to prevent (Neo)Pythagorean moral wisdom from transferring to Christian circles. It seems however that Porphyry lost the battle, insofar as Sextus' "Christianized Pythagoreanism" came to exercise an indirect influence upon the spirituality of Christendom and, especially, upon the Greek Byzantine monastic tradition. **Luca Arcari** deals with another reception of Pythagoreanism in early Christianity: the *Cohortatio ad Graecos*, a work included in Justin Martyr's *corpus* and recently attributed to the Monarchian Bishop Marcellus of Ancyra. Arcari points out that in a passage dedicated to Pythagoras we have a construction of Pythagorean monotheism for Christian apologetic purposes. It seems that, by doing so, the author of the *Cohortatio* aimed to defend the so-called Monarchianism that developed around the period of Arian crisis. For Arcari, the re-invention of a Pythagorean religion constitutes a Christian apologetic discourse that is strictly linked to the invention of an Orphic monotheism, which is in turn seminal for the formation of Christian monotheism. A different understanding of Pythagorean *askesis* can be found in **Dirk Baltzly**'s paper, which deals with Proclus' *Timaeus* commentary. Here, a proper way of life derives from a correct reading of Plato's book, which is likely to transform souls through its reception. Baltzly argues that a text such as the *Timaeus* – apparently about things as concrete as the planetary order – should instead be thought of as symbolically revealing relations among higher causes. For Proclus' audience it provided the basis for a keener awareness of the unity of all things, and a sense of separation from visible bodies in the heavens, a separation that metaphorically becomes "the vast indifference of heaven." Pythagorean-Socratic *askesis* is limited to the ethical milieu, and therefore unlikely to transform the recipient into someone who has a "scientific" attitude towards nature. The Pythagorean way of life continued to be a core issue in the Early Modern period. In her paper, **Ada Palmer** shows that from the early fifteenth to the dawn of the seventeenth century, scholars with diverse backgrounds, nations, confessions, and intended audiences produced strikingly

similar depictions of a pious, virtuous, and above all monastic Pythagoras. Palmer shows that this way of depicting the ancient sage was apologetic, in the writers' own defence: humanists were presenting their own role models, the archetypes whom they wanted to embody and succeed; these figures also stood for activities and creations for which they needed to attract funding from patrons. This is evident in the work of Giovanni Aurispa (1376–1459), Marsilio Ficino (1433–1499), Francesco Filelfo (1398–1481), Raffaele Maffei (1451–1522), Filippo Beroaldo the Elder (1453–1505), Johannes Reuchlin (1455–1522), Michael Neander (1525–1595), and Johannes Arcerius Theodoretus (1538–1604). All of these humanists provided biographical sketches in which they emphasized the sacredness of their forefather Pythagoras. A major step in the discussion of the influence of the Pythagorean way of life on Christianity was taken by Richard Reitzenstein in 1914 (*Des Athanasius Werk über das Leben des Antonius*). Building upon Reitzenstein's work, **Jan Bremmer** deals in particular with the relationship between Pythagoreanism and Athanasius' *Life of Antony* as well as the origin of this discovery in modern scholarship. Bremmer shows that from the point of view of Athanasius, *askesis* was more important than martyrdom. For this reason, Antony is represented as recognizably Pythagorean, despite many differences. Certainly, Athanasius appropriated and transformed Pythagorean themes: his *Life* represents both an attempt to use pagan knowledge, the influence of which was paramount in Late Antiquity, and a desire to create connections between the lifestyle of the earliest Christian monks and those pagan traditions that displayed similarities to it.

Next we have a set of chapters which show that, even in fields of knowledge such as science and philosophy, an important role was played by *askesis* and way of life. It is clear, for instance, that throughout antiquity Pythagorean discipline exerted a strong influence on medicine. Dietetics as a specific therapeutic and preventive approach to health, however, did not develop before the middle of the fifth century BC. **Stavros Kouloumentas** focuses on medicine in a broad sense, as an intellectual field in which several thinkers propounded theories concerning the human body, well-being, and other interrelated topics, even though they were not physicians. Kouloumentas maintains that unlike other Presocratics, the Pythagoreans were not motivated by a "proto-scientific" interest in exploring microcosmic structures or healing individuals, but rather were inspired by moral and religious beliefs, since they adopted a lifestyle tightly governed by prohibitions and obligations. In his paper, **Andrew Barker** concentrates on reports of the fifth century BC onwards about the periods of human gestation. Ancient medical writers often discuss the theory that children born seven months after conception are viable while those born at eight months are not – a theory that entails some of the *akousmata* and ritual injunctions recorded by Iamblichus, which probably originated at a much earlier date. This suggests that the purpose of the Pythagorean reflections on periods of gestation may have been to provide this pseudo-epistemic knowledge with a theoretical foundation. **Hynek Bartoš** demonstrates that the medical discussion of dietetics, as attested by Hippocratic

authors and their contemporaries, influenced the reports about earlier Pythagorean tradition rather than the other way round. Indeed, the Hippocratic *Regimen* presents strong echoes of Pythagorean ideas such as the concept of harmony, *mimesis*, or the transmigration theory, which makes a transfer of knowledge from the Hippocratic School into Pythagoreanism more than likely. As Bartoš shows, the idea that health depends on due proportion between food and exercise, as attested in the *Regimen*, is identified by Iamblichus (*Vit. Pyth.* 29, § 163–164) as constituting a Pythagorean contribution to the field of dietetics.

The following section contains two papers on Pythagorean music. **Antonietta Provenza** maintains that among the Pythagoreans the use of paeans for healing and calming both rage and anger shows that catharsis was meant as a “purification” from every kind of excess. Thanks to this purification, strands of knowledge such as religion, medicine, and ethics were blended together to provide a harmonious order within individuals. Music and musical education also played a political role, since both were intended to foster social order. That said, as **Emidio Spinelli** shows in his paper, the importance of music in Pythagoreanism should not be overestimated. Commenting upon a passage of Sextus Empiricus’ *Against the Musicians* (= *M* 6), Spinelli points out that Pythagoras’ praise of the cathartic function of music does not entail a defence of its irrational elements. In other words, the role of music should not interfere with philosophical pursuits, which give primacy to a complete way of life through which one can attain inner balance and individual happiness.

Next we have papers addressing Pythagorean numerology and harmony. **Leonid Zhmud**’s paper tackles the twofold character of Pythagorean knowledge about numbers: on the one hand arithmology, which deals with pure mathematical properties; and on the other, numerology, which identifies number with concepts (i. e. *kairos* = seven, justice = four, etc.). Zhmud points out that the Pythagoreans did not attach particular significance to the number ten. In fact, the doctrine that forms the basis of Greek arithmology, that is, that the decad embraces the entire nature of numbers, was not Pythagorean, but rather Platonic. **Eugene Afonasin** shows how Clement of Alexandria occupies an intermediate position between the Neopythagorean biographical tradition and the literary practice which preceded the Neoplatonic synthesis. In his *Stromateis*, *akousmata* represent a first step toward virtue and wisdom: the highest possible knowledge (*gnosis*) must be gained through the mysteries of *Logos*.

A remarkable transfer of Pythagorean knowledge on number can be traced in the Arabic tradition. **Anna Izdebska** analyses two Arabic descriptions of a Pythagorean metaphysics of numbers, one contained in the *Ikhwān al-Ṣafā’* (*Brethren of Purity*) and one found in the works of al-Shahrastānī. According to the *Ikhwān* – an esoteric Ismaili fraternity of anonymous philosophers who were active in Basra and Baghdad around the ninth or tenth century – an analogy occurs between the nature of beings and the nature of numbers. Numbers do not constitute the principle of reality, since the Creator is the cause of all that exists. The Pythagoreans went beyond this level, and claimed that every number, small

and large, even or odd, integer or fraction, is composed from the One, which is the origin and the source of number. Abū l-Faṭḥ Muḥammad al-Shahrastānī, a Persian theologian who lived during the eleventh and twelfth centuries, provides a vision of Pythagorean number strongly informed by Islamic theology. Drawing from Neoplatonic Pythagorean authors, he derives different notions of oneness (*hen* or *monas*), which he identifies with the Intellect.

The connection between mathematical and ethical order is a peculiar trait of Pythagoreanism right up to the Early Modern period. Even in the “perfect” churches of the Renaissance, as **Christiane L. Joost-Gaugier** shows in her paper, the concept of universal order incorporated a moral reform that opposed war and other forms of depravity. It urged frugality, restraint, communal friendship, sharing property, and the practice of piety and justice. Earthly behaviour therefore reflected universal order, and enabled humankind to approximate God. **Wilhelm Schmidt-Biggemann** deals with Johannes Reuchlin’s *De Arte Cabalistica*, a work which bears evident traces of Pythagorean number theory. In particular, the second book of *De Arte Cabalistica* is explicitly Pythagorean, aiming to prove that Pythagoras, the first Greek philosopher, adopted Kabbalistic teachings. According to Reuchlin, the main teachings of the Pythagoreans were the theory of *possest* and the world of numbers. For Reuchlin, *possest* is the indefinite One. It entails the order of the spiritual world, which, in turn, is represented by numbers. **Samuel Galson**’s paper also deals with the influence of Pythagorean number theory on modern philosophy. Religious and scientific strains of knowledge are intertwined in Leibniz’s lifelong engagement with Pythagoras. In fact, as Galson shows, Leibniz associated Pythagoras with the investigation of symbolic systems, the system of pre-established harmony, and monadology. Moreover, Leibniz maintained that Pythagoras’ doctrine of immortality was based upon mathematical principles, but that in order to communicate it to a wider audience he “enveloped” it in the myth of metempsychosis.

We proceed, finally, to a set of papers devoted to transfers of ancient Pythagorean knowledge in Medieval and Early Modern contexts. A remarkable example is the presence of Pythagorean doctrines in the Caucasian philosophy of the Middle Ages. **Tengiz Iremadze** explores David the Invincible’s *Definitions of Philosophy* (sixth century AD) and Joane Petritzi’s commentaries on Proclus’ *Elements of Theology* (twelfth century AD). In these thinkers Pythagorean doctrines such as arithmology crop up, eventually becoming the subject of Christian reception and transformation. The influence of Pythagoreanism is especially evident in Petritzi, who considered the first principle of cosmos, and in particular the One, as a source of general philosophical concepts and definitions. The Arab reception of various Pythagorean strands of knowledge is the subject of **Beate La Sala**’s paper on Ibn Sīna (Avicenna) and Al-Ghazālī. Both of them adapted Pythagoreanism and transferred it into their own systems of thought. In his *Mishkat al-Anwar*, Al-Ghazālī employs Pythagoras’ ten categories with their opposites, while Ibn Sīna provides a rather critical depiction of Pythagorean mathematics, criticizing its

concept of number in relation to the idea of unity. La Sala shows that this critical attitude can be understood as common ground between Al-Ghazālī and Ibn Sīna, whose approach to Pythagoreanism is both approving and critical.

Denis Robichaud treats Marsilio Ficino's involvement with Pythagoreanism. As Robichaud points out, Pythagoreanism is much more central to Ficino's philosophical development than has hitherto been noted: not only Ficino's *De secta Pythagorica*, but also his *prisca theologia*, seems to be influenced by Pythagoreanism. Ficino's exposition of Plato's divided line is particularly interesting in this regard, as Ficino presents Plato as a follower of a Pythagorean doctrine. Modern scholarship would characterize this doctrine as Neoplatonic, but Robichaud shows that Ficino's interpretation draws on Pythagorean pseudepigrapha quoted by Iamblichus, namely Archytas and Broctinus. The paper of **Hanns-Peter Neumann** focuses on the formation of Pythagoreanism in the Early Modern period. Neumann shows that the term "Pythagoreanism" was coined by the French scholar Michel Mourgues (1642–1713), who in his *Plan Théologique du Pythagorisme* (1712) and the unpublished *Plan Philosophique du Pythagorisme* referred to the Pythagorean concepts that had the greatest impact on Plato, Aristotle, and the Middle and Neoplatonists. Contemporary with Mourgues, scholars such as Thomas Stanley, Ismael Boulliau, Newton, Leibniz, Ralph Cudworth, and others contributed to the transfer and re-adaptation of Pythagorean knowledge. Consequently, Neumann concludes, there were different ways of defining "Pythagoreanism", depending on which aspect of Pythagorean knowledge was to be used in argument.

The volume is rounded off by an appendix of texts on the Pythagorean way of life. **Emily Cottrell** provides a reconstruction of Porphyry's *Life of Pythagoras* according to al-Mubashshir ibn Fātik and Ibn Abī Uṣaybi'a, two Arab scholars of the eleventh century. In the introduction to the English translation of the text, Cottrell deals extensively with the sources of Ibn Abī Uṣaybi'a, namely: Ṣā'id al-Andalusī, Porphyry, al-Mubashshir ibn Fātik, and Plutarch.¹² Cottrell shows that the portrait of Pythagoras in the Arabic *Life of Pythagoras* is consistent with Porphyry's agenda. Pythagoras is depicted as a true successor of the Seven Sages, an initiate of Eleusis, and a disciple of Zoroaster. **Ada Palmer** presents two sixteenth-century accounts of the life of Pythagoras: the entry on Pythagoras from the *Commentarii Urbani* of Raffaele Maffei (1451–1522), and Michael Neander's (1525–1595) dedicatory letter for an edition of the *Golden Verses* accompanied by poems of Phocylides. As Palmer points out, Neander had Maffei's *Commentarii Urbani* on his desk when he wrote the dedicatory letter. The treatments are closely linked, since Neander took Maffei as his model and neither was composed as an independent work.

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12 A new edition and translation of the *Generations of the Physicians* by Ibn Abī Uṣaybi'a is underway by a team led by Emilie Savage-Smith, Simon Swain, and Geert-Jan van Gelder (see <http://krc2.orient.ox.ac.uk/alhom/index.php/en/>). It was not used by the author as it was not completed by the time of publication.

The thematic sections described above outline the many diachronic and synchronic transfer processes that take place within specific areas of Pythagorean knowledge. Such transfer processes have far-reaching consequences which cannot be limited to single, strictly defined bodies of knowledge. Orphism, metempsychosis, way of life, dietetics and medicine, music, number and harmony, late refractions of Pythagorean beliefs and tenets – these issues can by no means be separated from each other. On the contrary, they are vitally interconnected. Most of the contributions to this volume show quite clearly the interrelationships of all of these topics. Indeed, the present collection aims to enhance the study of the many links, transfers, and mutual interactions among the different forms of Pythagorean knowledge that have emerged throughout history, from Archaic Greece to Early Modern times.

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I Orphika

Transfer of Afterlife Knowledge in Pythagorean Eschatology

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1 Preliminary considerations

1.1 Difficulties

The study of Pythagorean literature regarding the fate of souls after death is extremely complex. Several factors contribute to this complexity. First, the scarcity, diversity, and lack of precision of the testimonies. Second, the blurred lines between Pythagoreans and Orphics, which is aggravated by the fact that some Pythagoreans composed works under the name of Orpheus.¹ Third, another contributing factor is the breadth and diversity of Pythagoreanism (and Orphism) in time and space, with the added difficulty that authors tend to pass off diverse proposals as ancient and originating from Orpheus or Pythagoras themselves. This circumstance on the one hand makes it difficult to date some doctrines, and on the other it increases the possibility that diverse eschatological doctrines may exist.² A fourth factor is the need to relate the study of the soul's fate to doctrines about its nature, which are also varied across space and time, and even contradictory. And last but not least, the fifth factor we should take into account is the notorious lack of interest by scholars of Pythagoreanism in Pythagorean proposals on the afterlife, which has resulted in a scarcity of research and publications on this subject.

It is not my intention in this paper to exhaust the topic, which would require a much more detailed study.

1 Testimonies are collected and commented upon in Bernabé 2004–2005 fr. 403–405 (hereafter cited as *OF* followed by the fragment number); cf. West 1983, 7–15, Brisson 1990, 2925–2926, Kingsley 1995, 140–141, and Bernabé 2008, 394–400. Ion of Chios (fr. 116 Leurini) testifies that Pythagoras ascribed some of his works to Orpheus himself, cf. Zhmud 2012, 223.

2 This is confirmed by texts like Arist. *De an.* 404a 17 (Pythagorici 58 B 40 DK) “For some of them (Pythagoreans) said that the soul was the motes in the air, and others that it was what moved the motes” (Translation by C. A. Huffman). Cf. Boyancé 1937, 84–86; Dodds 1951, 149 and 171; Huffman 1993, 327–331.

1.2 A few basic considerations

The ancient (and modern) mix-up between Orphics and Pythagoreans can nonetheless have a positive aspect: it highlights the existence of large areas of co-existence between both doctrines. Having said that, from what we know, the Pythagorean sect was deeply involved in the scientific explanation of reality and in the organization of everyday life, both within the sect and in the politics of the city. In these two characteristics they differ from Orphics, who never established permanent groups, and whose interest in their fate after death was inversely proportional to their interest in politics. Thus it is to be expected that Pythagoreans would be more concerned with the “orthodoxy” of organization of life in the world, rather than with fate after death.

1.3 Data of diverse nature

The texts present data of diverse nature relating to the topic we are discussing, and they are sometimes conflicting. To make the analysis easier, in this paper, I will divide the explanations into the predominantly physical and the predominantly religious, although I acknowledge that this division may be anachronistic and a bit arbitrary.

I call “predominantly physical explanations” those focused on the matter of which the soul is made, and how it interacts with other matters, *in primis* of the body. Within this group we would propose three types of proposals about the soul:

- a) One postulates that the soul is harmony and does not survive after death (§ 2.1).
- b) Another proposes that the soul is aether and it joins aether upon the death of the body (§ 2.2).
- c) And a third explanation states that the soul would remain in the air after escaping its corporeal form and / or would be inhaled with the air, although the composition of the soul in this case is not specified (§ 2.3).

On the other hand, I consider as “predominantly religious explanations” propositions that are based on the conception of the soul *ἄθάνατος*, which presents a profound deviation from the predominant Homeric tradition, since according to Homer only the gods are *ἄθάνατοι*, while the *ψυχαί* that inhabit Hades are *ἄμενηνὰ κάθηνα* (*Od.* 10.521, 536 al.), a sort of shadows without consciousness, memory, or will, which would never return from Hades. In this group there are different interpretations of what happens when the soul leaves the body:

- a) In one case it is proposed that the soul goes to Hades, where it receives rewards or punishments according to the conduct of the person whom the soul inhabited (§ 3.1).
- b) In another interpretation, the soul suffers metempsychosis, that is, the soul transmigrates to another body (§ 3.2).

- c) Other versions state that the soul is placed among the heavenly bodies or it becomes a heavenly body (§ 3.3).
- d) Another explanation proposes that it becomes a new being of divine nature, be it *daimon* or *theos* (§ 3.4).

1.4 Parameters

I think that it is methodologically productive to elaborate a series of parameters to apply to each of the hypotheses with the idea of facilitating comparisons, and to trace a history of the question, which we can only sketch at this point.

One group of parameters that I propose are external to the doctrine:

- the attribution of the doctrine: to Pythagoras or to the Pythagoreans, to Orpheus or the Orphics, or both;
- the date of the testimonies;
- the origin of the text: from the Orphics or Pythagoreans, or from a different source.

Together with these external parameters, there are others that pertain to the content of the doctrine:

- is the matter of the soul specified or not;
- is the status of the soul after death modified or not;
- are there any variations;
- is there an interest in the mechanism by which the process occurs, or not;
- is the process suffered by the soul lineal or cyclic;
- is an ending to the process foreseen or not;
- and with which of the other hypotheses a doctrinal content is compatible, in order to determine whether or not it is possible to construct a single, coherent doctrine combining them.

Lack of information may naturally lead to imprecise or even incorrect conclusions.

In the following section I will briefly review each of the documented explanations based on the parameters I have proposed.

2 Predominantly physical explanations

2.1 The soul as harmony

The doctrine of the harmony-soul is only attributed to Pythagoreans and is documented in external texts from the fifth and fourth centuries BC: in Plato, Aristotle, and also Philolaus through Macrobius.³

3 Plat. *Phaed.* 86b, Arist. *De an.* 407b27, *Pol.* 1340b18, Macrobius. *Somm. Scip.* 1.14.19 (Philol. Test. A 23, 323 Huffman).

The soul is a harmony of elements. Upon the death of the body the status of the soul is modified in that it too necessarily disappears when the elements, of which it was the harmony, no longer exist. Aristotle seems to reflect variations in details,⁴ although he may be referring to differences between the Pythagoreans and Plato.⁵ The mechanism of the process is outlined, and it is supposed to be cyclic and endless: the existence of new harmonic structures entails new souls that bring about the harmony of these structures, but it is incompatible with postulates of immortality or transmigration of the soul.

2.2 *The soul is aether*

Alexander Polyhistor attributed to Pythagoras the doctrine that the soul is aether (and it is often specified that it also returns to aether),⁶ while Vettius Valens attributed it to Orpheus.⁷ Thus both are late testimonies. Nevertheless, the doctrine was documented much earlier, outside Orphic and Pythagorean circles. Specifically, it can be found already in the fifth century BC in the epitaph for the deceased at Potidaea (432 BC) and other epitaphs.⁸ The most plausible theory is that the doctrine originated in the sphere of Ionic philosophy and achieved a certain degree of popularity. For its subsequent history, we could think of two possibilities: either it was reproduced among Orphics and Pythagoreans keen on scientific explanations, or supporters of this hypothesis attributed it to Orpheus or Pythagoras for reasons of prestige. Burkert indicates with reason that, “if this whole development were to be traced back to Pythagoras, one would have to ascribe to his teaching a maximum of influence and a minimum of definite context; for the testimonia are extremely disparate.”⁹

Regarding the rest of the parameters: the soul's matter is specified (as aether), but a change of status is not postulated, since at the death of the body the aether simply mixes with the aether: *similia similibus miscentur*. However, the mechanism of the process is not mentioned, perhaps because it was considered obvious. It is very likely that it was considered to be cyclic: parts of the aether would penetrate different bodies once again, to give them life, in a process to which an ending is not foreseen. It is similar to – but not the same as – theories that postulate that the soul inhabits the aether (§ 3.3), and identify it with the heavenly bodies or the gods. It is incompatible with any doctrine about rewards and punishments, and with transmigration of the soul.

4 Arist. *Pol.* 1340b18 διὸ πολλοὶ φασὶ τῶν σοφῶν οἱ μὲν ἀρμονίαν εἶναι τὴν ψυχὴν, οἱ δ' ἔχειν ἀρμονίαν, “owing to which many wise men say either that the soul is a harmony or that it has harmony” (translation by H. Rackham).

5 Plat. *Phaed.* 93a.

6 Alex. Polyh. *ap.* D. L. 2.28.

7 Vett. Val. 317.19 Pingree (OF 436).

8 IG I¹179 = CEG 10.6 Hansen αἰθέρ μεμ ψυχᾶς ὑπεδέχσατο, σόμ[ατα δὲ χθόν]. “Aither has taken their souls, and earth their bodies” (translation by A. Mihai). Cf. Thom 1995, 205; Mihai 2010.

9 Burkert 1972, 361–362, with bibliography, cf. also Molina Moreno 2008, 616–617.

2.3 *The soul remains in the air and / or is inhaled with it*

Aristotle attributed to the Orphics the idea that the soul is inhaled with the air and there is certainly an Orphic verse that asserts this idea.¹⁰ In another passage, he ascribes to “Pythagorean myths” the theory that any soul could be clothed in any body.¹¹ Additionally, Aristotle picks up the idea that the soul was the motes in the air, as postulated by some Pythagoreans.¹² This represents a much more “materialistic” version than the doctrine attributed to the Orphics. We do not know if these three reports are different aspects of the same theory. If this were the case, we could explain the attribution of the same doctrine to both Orphics and Pythagoreans by accepting Gagné’s proposal¹³ that this idea was found in the poem *Φυσικά*, ascribed to Orpheus but actually written by Brotinus – that is, a Pythagorean.¹⁴ The matter of the soul is not specified and it appears that its status is not modified; it only changes places. This doctrine is only interested in the mechanism of the process: the soul is inhaled and it stays in the air. In a different version, it is indicated that the presence of the soul in the air is responsible for its movement. The process seems to be cyclic and endless, since particles of the soul that are in the air can penetrate another life form again. Despite how it may appear, this doctrine is compatible with transmigration, as we will see further on (§ 3.2).

3 **Predominantly religious explanations**

3.1 *Rewards (and punishments) in the afterlife*

According to various authors, Orphics and / or Pythagoreans considered that the souls of humans received rewards or punishments in the afterlife, depending on the fulfilment of specific conditions in this world. A very old testimony can be found in Ion of Chios,¹⁵ according to whom Pythagoras’ proposals foretold Pherecydes a pleasant life in the afterlife as a reward for his conduct. Aristophon, a Middle Comedy poet, points out that Pythagorizing followers are the only people who sit at the table of Hades, due to their piety.¹⁶

In turn, Plato mockingly presents the privileges promised by “Musaeus and his son” to righteous men, and Plutarch explains that Plato is talking about the followers of Orpheus.¹⁷ A banquet accompanied with wine (described as a “fortunate honour”) seems to be promised in the Orphic tablet from Pelinna to a man who had just died.¹⁸ Nevertheless, this vision of wine in the Beyond was not shared by the Pythagoreans. Both the information we obtain from Diogenes

10 Arist. *De an.* 410b27 (OF 421); Vett. Val. 317.19 Pingree (OF 422).

11 Arist. *De an.* 407b10 (= Pythagorici 58 B 39 DK). Cf. Nilsson 1935, 212.

12 Arist. *De an.* 404a16–18 (= Pythagorici 58 B 40 DK).

13 Gagné 2007.

14 OF 800–803.

15 Io Chius fr. 30 West, 92 Leurini.

16 Aristophon fr. 12 K.-A. (= D. L. 8.38 = OF 432 III). Cf. Battezzato 2008.

17 Plat. *Resp.* 363c, Plut. *Comp. Cim. Luc.* 1.2 (OF 431 I).

18 OF 485.6, cf. Bernabé / Jiménez San Cristóbal 2008, 61–94.

Laertius about Pythagoras calling drunkenness a snare,¹⁹ and the burlesque testimony of Aristophon,²⁰ where the Pythagoreans only drink water at Pluto's banquet, make it unlikely that Pythagoreans would have imagined the consumption of wine as a reward in Hades.

Plato completes the passage of the *Republic*²¹ by citing the punishment that the uninitiated suffer in Hades: to plunge into a kind of mud, or to carry water in a sieve. In another passage, Plato presents a scenario that is probably closer to Orphic postulates from his time, where being initiated or not is what determines the situation in the afterlife.²² This is also recorded in a gold tablet from Pherae and an anecdote attributed to Diogenes the Cynic.²³

The commentator of the Derveni papyrus relates in col. 2 that a propitiatory sacrifice to the Erinyes has to be made in order for the soul to obtain a privileged position in the afterlife, and in col. 3 he mentions that not all the *daimones* sent by the gods are benevolent, but if Dike decides to pursue a noxious man with all the Erinyes, [the] under[world] *daimones* (= the Erinyes) will never release them.²⁴

However, there are few statements regarding punishment in the afterlife. On the one hand, Aristotle attributes to them the belief that, if it thunders, it must be to make the souls in Tartarus afraid.²⁵ On the other hand, Alexander says that Pythagoreans thought about the Netherworld as a place where "impure souls were not allowed to approach each other, much less to come close to pure souls, since they were fettered in unbreakable bonds by the Erinyes."²⁶

To summarize: the sphere of attribution of rewards and punishments in Hades is both Orphic and Pythagorean, although a certain degree of retribution of injustices in this world could have expanded the area of diffusion of this idea, and the testimonies are mainly external. We can place this in the fourth century BC, the date of the Derveni papyrus, and, although Alexander Polyhistor is from a later period, the idea may be much older, since its description resembles that of an Erinys tying an evil soul which can be found on an Apulian vase, also from the fourth century BC.²⁷

If we compare Orphic passages with those attributed to Pythagoreans, we find two similarities. The first is that there is a different fate for pure and impure souls. For this reason, the soul declares before Persephone in some Orphic gold

19 D. L. 8.9.

20 Cf. n. 17.

21 Plat. *Resp.* 363d (OF 434 I).

22 Plat. *Phaed.* 69c (OF 429 I). On Plato and Orphism, see Bernabé 2011.

23 OF 493 ἀποινος γὰρ ὁ μύστης "since the initiate is free from punishment," Iul. *Or.* 7.25 (II 1.88 Rochefort, OF 435 I). Cf. Bernabé / Jiménez San Cristóbal 2008, 157.

24 Cf. Bernabé 2014.

25 Arist. *AP* 94b 33.

26 Alex. Polyx. *ap.* D. L. 8.31 (*FGrHist* 273 F 93). Cf. Long 2013, 157–158; on similarities between the Derveni papyrus and Alexander, cf. Bernabé 2014, 42.

27 Apulian crater, Ruvo 1094 (360–350 BCE), cf. Pensa 1977, 25; Bernabé 2011, 202–203.

tablets from Thuri, "I come pure among pure."²⁸ The second similarity is that the Erinyes participate in the punishment of the impure souls. However, the differences between them are patently obvious: a) For the Orphics every soul goes to Hades, even if they stay in separate locations. The Pythagoreans, on the other hand, seem to lead some souls "upwards." b) There are no Pythagorean references to a different fate for initiates achieved through a ritual system by which, as in the case of the gold tablets, they need only know some passwords to be accepted to a privileged place. A special position is occupied by the Derveni commentator because, even if he is an Orphic, he knows philosophy and takes a moral perspective into account.

The matter of the soul is not specified, and the only mention of modification of its status after death is its liberation. We do not find any references to the mechanism of the process, and it is not clear whether it is a lineal or cyclic process. We also do not know if it is a never-ending process or if there is an end to it. In any case, the doctrine of rewards and punishments, and the transmigration of the soul are compatible.

3.2 *Metempsychosis*

Various authors attribute the transmigration doctrine to Pythagoras.²⁹ The oldest testimonies come from Xenophanes and Empedocles;³⁰ Heraclides Ponticus affirms that Pythagoras knew all his reincarnations, a fact that reveals an ancient attribution of the metempsychosis theory to his circle or to the philosopher himself.³¹ Dicaearchus, speaking about Pythagoras' doctrines, points out that "it was especially well-known by all" that the soul is immortal and transmigrates into other kinds of animals.³² Ovid puts in the mouth of Pythagoras both the theory of metempsychosis and all the memories of his previous identities,³³ and Diodorus Siculus attributes the doctrine of transmigration to Pythagoras.³⁴

Nevertheless, other authors mention Orpheus as the origin of the theory. Plato suggests this explicitly in *Cratylus*,³⁵ and allusively in other dialogues.³⁶

28 *OF* 488–490.1, cf. Bernabé / Jiménez San Cristóbal 2008, 100–102.

29 For a more detailed analysis of metempsychosis, cf. Casadio 1991; Casadesús 2011 and 2013; Bernabé 2011a and 2013, 127–134, with bibliography.

30 Xenophan. fr. 7 Lesher, cf. Lesher 1992, 78–79; Emp. fr. 99 Wright (B 129 DK), cf. Wright 1981, 256–258; Trepanier 2004, 124–126.

31 Heraclid. Pont. *ap.* D. L. 8.4 (86 Schütrumpf). According to Delatte (1922, 157), Heraclides' notice comes from Pythagoreans circles of the sixth to fourth centuries. Cf. also Iamblich. *VP* 134. According to Gottschalk 1980, 115 n. 93 (quoting previous bibliography), "Diogenes' source seems to have been a book forged in Pythagoras's name in the Hellenistic period, but the forger may well have used Heraclides."

32 Dicaearch. *Phil. ap.* Porph. *VP* 19 (fr. 40 Mirhady).

33 *Ov. Met.* 15.156–161.

34 *Diod. Sic.* 10.6.1, 5.28.6 (Posidon. fr. 169, 139.6 Theiler).

35 *Plat. Crat.* 400c (*OF* 430 I).

36 *Plat. Men.* 81a (*OF* 424), *Phaed.* 70c (*OF* 428). For an extensive discussion on this topic, I refer to Bernabé 2011.

Sometimes the theory is attributed to both of them. That is what Herodotus seems to postulate in a somewhat mysterious passage.³⁷ There has been extensive discussion of who are the Greeks to whom he refers, but in any case the expression “early and late” indicates that he is referring to more than one author, and it would be difficult to accept that Pythagoras is not among them, especially as the expression “have used this doctrine as if it were their own” is very similar to the one used by Heraclitus³⁸ when he is attributing to Pythagoras the appropriation of other people’s doctrines. This idea can also be found in Diogenes of Oenoanda,³⁹ who mentions them together.

On the other hand, according to Ion, Pythagoras himself attributed some of his own writings to Orpheus. In this way, we can say that Ion believed that Pythagoras was the author of certain poems that circulated under the name of Orpheus.⁴⁰

Let us examine the data according to the parameters mentioned earlier. Regarding the sphere in which the teaching is presented, the Orphic proposal presents traits that differ from Pythagorean ideas.

a) Orphic doctrine conceives metempsychosis as a cycle connected to the need to expiate humans’ original sin, which can be summarized in the slogan *σῶμα σῆμα* and is based on the myth of Dionysus and the Titans. According to this, the soul can obtain a divine state once it is freed from transmigration. This doctrine is expressed in other references from Plato and in Orphic gold tablets, as well as in other authors.⁴¹

b) To the contrary, the Pythagorean metempsychosis doctrine describes a cycle of re-birth that does not appear to be conditioned by a preceding sin committed in the origin of the human race, but seems rather to be the condition of preserving life, through the soul that perpetuates the beings *ἐμψυχα* on earth through constant reincarnation. This doctrine is found in Herodotus, Androcides, Heraclides, Dicaearchus, and Ovid, and it does not contradict Xenophanes’ statement. Two pieces of evidence are consistent with this idea. First, a text by Dicaearchus, according to which the Pythagoreans considered that the human race always existed, excludes the postulate of a Titanic sin prior to the origin of men.⁴² Second, for Pythagoreans *κύκλος* had a different meaning than for the Orphics. For Pythagoreans, the cycle is subject to necessity, probably because it is included in the regular processes of the world order, as Diogenes Laertius asserts. The Orphics, however, consider the cycle as something terrible from which the souls can be liberated at some point, for they interpret it as the punishment received by the

37 Hdt. 2.123.1

38 Heraclit. B 129 DK.

39 Diog. Oen. fr. 40 Smith

40 D. L. 8.8 (Io fr. 116 II Leurini, OF 506 I). Cf. Bernabé 2013, 118 and 128–129.

41 Clearchus (Athenaeus IV 157c) attributes very similar affirmations to a Pythagorean named Euxytheus, but Euxytheus is “doubtless a fictitious person,” according to Burkert 1972, 124 n. 21; nevertheless this reference shows that at some point the Pythagoreans were interested in this idea.

42 Dicaearch. Phil. ap. Cens. 4.3 (fr. 53 Mirhady).

human beings for the Titans' original crime;⁴³ they believe that this rite will allow them to break free and recover their lost divine condition.

The extreme form of this Pythagorean doctrine is the subjugation to transmigration in precise periods of time, within which the notion of number is supreme above everything else. Already Herodotus discusses the fixed duration of a cycle. A notable case is that of Hippobotus, to whom Pythagoras' reincarnations were part of a strict mathematical model.⁴⁴

The documentation of this doctrine among Orphics and Pythagoreans is ancient, and there are very clear texts from the Classical period. The testimonies are predominantly external, but in the case of the Orphics the doctrine is contained in the gold tablets. The matter of the soul is not specified, and among Pythagoreans there is no mention of the modification of its status. However, the Orphics understand the separation between the soul and the body as a liberation and a return to the divine life. Interest in the process is in both cases scarce or non-existent. Its development is clearly cyclical in the case of the Pythagoreans, while the Orphics foresee a definitive happiness for the liberated soul at the end of the circle of transmigration. The proposal is compatible with the idea of rewards and punishments in the afterlife, which can happen between reincarnations. And contrary to how it may appear, it is also compatible with the proposal that the soul is inhaled with the air, which only refers to the mechanism of the process and does not prejudge the nature of the soul, where it comes from, or where it is going. Proof of this is that Gregory of Nazianzus attributes both beliefs to the same persons, though he does not indicate to whom.⁴⁵ Even the *Rhapsodies* combine both ideas, although there is an attempt to distinguish between the souls of animals and the souls of men.⁴⁶

3.3 *The soul is placed between the heavenly bodies, or it becomes a heavenly body*

There are also scattered testimonies of an astral eschatology according to which upon the death of a body the soul seeks the highest place among the heavenly bodies. Information on this topic is obscure. Aristophanes presents it as a doctrine widespread in his times;⁴⁷ Iamblichus points out that for Pythagoras the Isles of Blessed are the Sun and the Moon.⁴⁸ According to the *Carmen Aureum*, when the soul is liberated from the body it returns to the aether as a god⁴⁹ – I will come to this idea further on – but, specifically in an Orphic poem called the *Lyre*, written very likely by a Pythagorean of the Hellenistic period, the text mentions

43 D. L. 8.14; OF 348 (*Rhapsodiae*), 488.5 (*Lamella aurea Thuriis*). Cf. Bernabé 2013, 136–138.

44 *Theol. Ar.* 52 de Falco (Hippobotus fr. 13 Gigante).

45 Gr. Naz. *Carm. arc.* 7.22–25 and 32–40 Moreschini (OF 421 VIII), cf. Herrero 2010, 213, 341–342, 371.

46 OF 339 (*Rhapsodiae*).

47 Ar. *Pax* 832–835.

48 Iamb. *VP* 18.82.

49 *Carm. Aur.* 70.

that, since the seven strings of the lyre correspond to the seven circles of Heaven, “the soul cannot ascend without the lyre,” a statement that – as previously pointed out by Nock – “referred to the soul’s ascent after death through the seven planetary spheres.”⁵⁰ We can establish a connection between this testimony and another one from Aristides Quintilianus, who mentions that Pythagoras exhorted his disciples to work at the monochord at his death bed.⁵¹ It is thus a Pythagorean proposal from the Hellenistic period which was attributed to Orpheus, but the Orphics themselves do not appear to have shared this idea, since their doctrines place the afterlife in Hades, not among the heavenly bodies.

3.4 *The soul becomes a divine being*

The idea that the soul may become a divine being is documented among the Orphics – in some of the Thurii gold tablets – and among the Pythagoreans, as well as in Empedocles.⁵² *Carmen Aureum* 63 specifies that the soul is of divine origin, so its liberation from the body represents the recovery of its primitive condition. Burkert and Thom highlight how the explanation of metempsychosis – which appears to be of ancient origin – gives way to the proposal of deification, except in the case of Plato, who defends it.⁵³

4 Conclusions

Orphics and a number of Pythagoreans share a prominent interest and a similar sensibility toward the difference between soul and body, and toward the survival of the soul. Both ideas are the germ of, and the necessary condition for, elaborate doctrines on the fate of the soul after death. This combination formed by dualism and eschatology has resulted in the development of a set of characteristics that apply to Orphics and Pythagoreans, as opposed to other pre-Platonic movements. This has two effects: the first is a transfer of ideas – total or partial – between the two circles; and the second effect is that, to an outsider, these similarities would have been interpreted as belonging to a single group that would have been perceived as different and peculiar. This latter circumstance is enhanced by the ambition of both groups to distinguish themselves from the rest by leading a particular ascetic way of life, refraining from the consumption of meat and, in the case of the Pythagoreans, perhaps also wine.

From the two trends that I pointed out at the beginning – always acknowledging that I am making a simplistic and anachronistic division – of either “predom-

50 Sch. Verg. *A.* 6.119 *ap. Cod. Par. Lat.* 7930 (Savage, *TAPA* 56, 1925, 235 = *OF* 417, cf. 418–420); cf. Nock 1927 and 1929, Keydell 1942, col. 1336, Ziegler 1942, col. 1412, Cumont 1942 [1966] addition to 18, Burkert 1972, 357; West 1983: 29–33, Lambardi 1986, Paterlini 1992, Bernabé 2008, 399–400.

51 Aristid. Quint. *De mus.* 3.2, cf. Burkert 1972, 357 n. 37. I refer here to Burkert’s excellent chapter on the possible links between astral religion and Pythagoreanism (Burkert 1972, 350–367).

52 *OF* 487.4, 488.9, *Carm. Aur.* 63–71 (cf. Thom 1995, ad locum), *Emp.* B 112.4 DK.

53 Burkert 1972, 123–124; Thom 1995, 227.

inantly physical" or "predominantly religious" orientation, it looks like the first did not form the majority. The suggestion that the soul is harmony seems to have originated from some Pythagoreans (referred to by Plato and Aristotle) interested in connecting doctrines on the soul with theories about harmony. It does not appear to have influenced the Orphics at all, nor does it seem to have been of long standing in Pythagorean circles.

Regarding the hypothesis of an aetherial nature of the soul, it seems that it originated outside the Orphic and Pythagorean ambiances (in the oldest testimonies, like the epigram of Potidaea, it appears not in connection with these groups, but rather in an "official" sphere of the city). It may have had a certain popularity among the most "scientific" followers of Pythagoras, but in turn we can reduce nearly to zero the texts that connect this theory with the Orphics. It presents similarities with the hypothesis that suggests that the soul departs for a place in the aether (which is not the same thing as having an aetherial nature), a postulate that seems to have attracted the Pythagoreans. The Orphics clearly preferred an eschatology in which the souls gain a privileged place in the Hades.

Lastly, the idea that the soul is inhaled with the air seems to have been shared by Orphics and Pythagoreans from early times.⁵⁴ Perhaps it originated among some of the Pythagoreans who wrote works attributed to Orpheus. It would be significant if this idea were expressed in the *Φυσικά*, a poem attributed to Orpheus but which is believed to have been written by Brotinus, a well-known Pythagorean. In any case, this explanation does not refer to the nature of the soul but to the mechanism through which it can penetrate another body. It is obviously compatible with the idea of transmigration, since it is clear that in this conception the soul exists separated from the body, it comes from another place, and it settles in it (supposedly to exit from it after the death of the body). For the most "scientific" Pythagoreans, the soul could be explained as a sort of animated matter responsible for providing the body with movement, while also making it possible to exploit the benefit of attributing the movement of the air to particles of soul. Nonetheless, for the most "religious" this is compatible even with the existence of rewards and punishments in the afterlife.

Regarding privileged treatment in the afterlife as a consequence of activities in the world, it seems that we can distinguish two different models, between which there could be all kinds of interferences: a) the first one, the Orphic, would be a ritualistic model according to which privileged access to the afterlife comes as a result of the fulfilment of ritual practices and the knowledge of certain passwords. Beyond the ritual, only the observation of justice appears to be required. However, the judgment of the souls, mentioned by Plato more than once, is not originally Orphic. b) The second model would be an ethical proposition in which privileged access is the result of specific conduct, and punishments are not always mentioned. This seems to be the Pythagorean model followed later by Plato.

54 Cf. § 2.3.

Among Orphics, it appears that it has begun to be accepted in the Derveni papyrus, and traces of it can also be found in the so-called Bologna papyrus.

In metempsychosis I think we can also establish two models, basically differentiated in that the Orphics consider it to be the punishment for a sin after which the final liberation of the soul is foreseen, while the Pythagoreans see in metempsychosis a simple functioning mechanism of the world, with no end.

As regards astral eschatology, it seems clear that the Orphics were not interested in it. They usually imagined that the liberation of the soul would end with the gathering of the initiated in a privileged place in Hades, identified in the gold tablets as "thiasos of the pure" or "Persephone's meadow," where they would reunite when already transformed to divine status. Nevertheless, in relation to other clearly Pythagorean theories, like the harmony of the spheres or the mathematical proportion in the strings of the lyre, in the Hellenistic period a certain group of Pythagoreans developed a more abstract eschatology of astral nature, in which the soul's ascent through the seven planetary circles is postulated.

Finally, deification was clearly affirmed by the Orphics, from the evidence of the tablets of the fourth century BC. In reality, this doctrine was merely making explicit what was implicit in the designation of the soul as *ἀθάνατος*. It also appears in Pythagorean circles at a later date and, for example, it is affirmed in the *Carmen Aureum* in terms that remind us of the gold tablets.

To make a final assessment, the Orphics managed to elaborate a relatively coherent eschatological scheme based on the proposals we have been analyzing, of course with the exception of the soul-harmony and the soul-aether, which are incompatible with the rest. The Orphic doctrine is religious, and it does not require extensive argumentation and introduction in a rational doctrinal scheme. In addition, given that transmigration was understood as a punishment against a being of divine origin to expiate a sin, the deification meant the end of the punishment and the final liberation of the soul. It was also easy to fit into this scheme an explanation of the mechanism through which the soul could transmigrate from one body to another, on the understanding that it was inhaled from the air. The idea of rewards and punishments in the afterlife, which would allow regulation of the transit of the soul toward its purification and liberation, is also easy to integrate. We have seen already that a text by Gregory of Nazianzus corroborates that all this formed part of a whole, since he attributes these characteristics to a single doctrine.

However, in the Pythagorean sphere configuring a coherent scheme is more difficult. The mechanism of inhaling the soul through the air is not incompatible with transmigration, and it also makes it possible to explain the movement of the air by the particles of the soul. It would not be problematic to reconcile the idea of rewards and punishments with transmigration, since the Pythagoreans showed great interest in ethics right from their origins. In fact it seems that the Pythagorean vision in this respect was less ritualistic than the Orphic one, and more inclined toward ethical interpretations. However it is much more difficult

for them to reconcile transmigration with deification. First, because if, as I have postulated, transmigration was conceived as a normal mechanism in the world order and the renovation of life, then the idea of deification is not easily compatible with it. Proof of this incompatibility in the Pythagorean sphere is that the idea of deification has to be presented as an alternative to transmigration, until it eventually relegates it. Second, there are certain philosophical postulates that produce greater requirements in the creation of an eschatology. And above all, we need to take into account that, while the image of the afterlife was a priority of the Orphics, the Pythagoreans were more interested in other questions. For all these reasons, we do not find a systematization of eschatological ideas in the Pythagorean sphere as we do in the Orphic sphere (or perhaps it would be best to say that we find traces of diverse discordant systematizations).

Above I have presented a proposal that I recognize could prompt the objection that it is simplistic, but this is because the study of Pythagorean eschatology needs more attention. Therefore what I have set out so far should be taken as a working outline in which the available texts may be inserted in the most coherent way.

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The Appropriation of the Figure of Orpheus and Orphic Doctrines: An Example of Pythagoras' Artful Knavery (*kakotechnie*)?*

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1 Introduction

In a book such as this, dedicated to dealing in a monographic way with “Forms and Transfers of Pythagorean Knowledge: *Askesis* – Religion – Science,” it needs to be noted that the mythicized figure of Pythagoras performed a fundamental role in the origin and development of the notion of “knowledge.” In fact, as I will attempt to show in this study, Pythagoras was, among the thinkers of Antiquity, the most eagerly devoted to the exercise, to the *askesis*, of compiling decidedly varied and scattered knowledge from very different geographic, cultural, social, and religious origins. Even the most ancient testimonies coincide in presenting Pythagoras as a pioneer who, by virtue of his firm will to acquire new knowledge, created a novel activity, philosophy. For this reason, I will attempt to demonstrate that Pythagoras' unrelenting devotion to the acquisition of knowledge constituted a continuous exercise, an *askesis*, which caused a true revolution that substantially altered the archaic conception of wisdom, and which led to what we regard today as one of humanity's greatest achievements: scientific research.

It must be noted that this new way of accessing knowledge initiated by Pythagoras was not exempt from criticism by those, as in the very significant case of Heraclitus, who felt they were the holders and guardians of true knowledge. Thus, owing to Heraclitus' hostile reaction we can, paradoxically, appreciate the novelty of Pythagoras' *modus operandi* regarding the advance of human knowledge. This, in turn, will help us assess the scope of the innovative Pythagorean manner of “doing science.” Let us, to begin our analysis, recall the well-known Heraclitean fragment, transmitted by Diogenes Laertius:

Πυθαγόρης Μνησάρχου ιστορίην ἤσκησεν ἀνθρώπων μάλιστα πάντων
καὶ ἐκλεξάμενος ταύτας τὰς συγγραφὰς ἐποιήσατο ἑαυτοῦ σοφίην,
πολυμαθίην, κακοτεχνίην.

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Pythagoras, son of Mnesarchus, pursued inquiry further than all other men and, choosing what he liked from these compositions, he made a wisdom of his own: much learning, artful knavery.¹

2 What is the foundation of Heraclitus' criticism of Pythagoras?

The fragment contains two parts, a positive one and a negative one. The fact that Heraclitus acknowledged that Pythagoras exercised in research, ἱστορίην ἥσκησεν, more than any other man, agrees with other information transmitted by earlier sources. Thus, Ion of Chios defined Pythagoras as a true man of wisdom, a *sophos*, who "more than all saw men's mental dispositions and came to know them well," Πυθαγόρης ἐτύμως ὁ σοφὸς περὶ πάντων ἀνθρώπων γνώμας εἶδε καὶ ἐξέμαθεν.² Empedocles presented him as "a ruler over many and diverse wise activities," παντοίων τε μάλιστα σοφῶν <τ'> ἐπιήρανος ἔργων.³ Herodotus, in turn, qualified him as "not the feeblest clever man among the Greeks," Ἑλλήνων οὐ τῷ ἀσθενεστάτῳ σοφιστῇ Πυθαγόρῃ.⁴

It is, thus, no coincidence that the three testimonies we just mentioned agree in portraying Pythagoras as a wise man, a *sophos*, a *sophistes*, resolutely devoted to all kinds of knowledge, *pantoion malista sophon*, acquired through knowing and learning from all men. The earliest sources are, therefore, unanimous in presenting Pythagoras as the paradigm of an active researcher, open to the world and devoted to the pursuit of a total, holistic, knowledge. This unwavering will to knowledge is Pythagoras' most renowned and characteristic trait. Heraclitus had no trouble in recognizing it when noting that he "pursued inquiry further than all other men," ἱστορίην ἥσκησεν ἀνθρώπων μάλιστα πάντων.

The use of the expression ἱστορίην ἥσκησεν, in fact, deserves a more detailed comment, for it allows us to reflect upon the topic we have been invited to address in this volume. It is interesting that Heraclitus used the word *historie* to define Pythagoras' research activity. Such a term should be understood, according to Huffman – who has analysed it in its historical context based on its use in Herodotus' work – as "the active collection of what people say on a given topic."⁵ Huffman's comparison of Herodotus' use of the word *historie* led to the conclusion that it "is a general word for enquiry that does imply an active curiosity and desire to know things but is not limited to a specific subject-matter or to a rational outlook on the world."⁶ For this reason, Huffman argues that *historie* "has the connotation of enquiries that go beyond what is readily at hand and thus that require effort and probably travel."⁷

1 D. L. 8.6 = B 129 DK. Trans. Ch. Kahn.

2 D. L. 1.120.

3 Emp. B 129 DK.

4 Hdt. 4.95.9.

5 Huffman 2008, 31.

6 Huffman 2008, 23.

7 Huffman 2008, 30.

In this sense, the fragment underscores the fact that Pythagoras explored and investigated others' knowledge, an activity to which he consecrated all of his efforts. For this reason – to highlight the fact that his search for knowledge was the result of an active researching *askesis* – Heraclitus used the verb *eskesen*. Hence Heraclitus admitted, albeit involuntarily, that research at the highest level requires a life of effort, an *askesis*, devoted, as is the notorious case of Pythagoras, to carrying out long and continuous journeys to acquire much and diverse knowledge. This wisdom, conveniently transformed when introduced to Greece, promoted a true “knowledge in motion,” which fuelled a new way of understanding science.

However, in the second part of the fragment, the apparent laudatory tone changes radically. There Heraclitus specifies that Pythagoras, choosing what he liked from these compositions, ἐκλεξάμενος ταύτας τὰς συγγραφάς, “made a wisdom of his own,” ἐποιήσατο ἑαυτοῦ σοφίην. In his opinion, such wisdom was nothing more than “much learning,” πολυμαθίην, and “artful knavery,” κακοτεχνίην. Heraclitus used these words to reveal what Pythagoras' praised and renowned historie really was. In this context, it is striking that Heraclitus denounced the fact that Pythagoras elaborated his “own knowledge” after performing a “selection of these writings.”⁸ Heraclitus' use of the plural ταύτας τὰς συγγραφάς emphasizes the diverse and assorted character of the knowledge to which Pythagoras had access as part of his research and from which he made a selection, ἐκλεξάμενος. Hence, Heraclitus underscored the “eclectic,” selective character of Pythagoras, who seems to have sifted the large amount of knowledge, much of it in written form, to which he had access. This attitude of search and selection reminds us of the fragment of Heraclitus in which he argues that the “seekers of gold dig up much earth and find little.”⁹

In any case, Heraclitus' assertion that Pythagoras composed his own wisdom from this selection, ἐποιήσατο ἑαυτοῦ σοφίην, is most striking. Note that the word *sophie* accords with the testimonies we have just analysed and that underscore his undisputed status as *sophos*. Here, however, the word is restricted by the possessive genitive, ἑαυτοῦ, to emphasize that it was *his* wisdom, in the sense that he had appropriated it. We cannot devote too much space to considering the significance of this statement in the context of the thinking of Heraclitus, who criticized most men, οἱ πολλοί, because, oblivious to the wisdom of the common Logos, they lived in their own particular one.¹⁰ It is evident, from this perspective,

8 There are many opinions on the nature and priority of these writings. Although Burkert (1972, 131), suggests that they could be Orphic, we believe that, initially, there is no reason to justify this attribution. Pythagoras' untiring research activity allowed him to access all kinds of texts on all kinds of wisdom and knowledge.

9 Χρυσὸν γὰρ οἱ διζήμενοι γῆν πολλὴν ὀρύσσουσι καὶ εὗρίσκουσιν ὀλίγον, B 22 DK.

10 Εὐνὸς γὰρ ὁ κοινός. τοῦ λόγου δ' ἐόντος ξυνού ζῶουσιν οἱ πολλοὶ ὥς ἰδίαν ἔχοντες φρόνησιν, B 2 DK. “Pythagoras has his own private wisdom, and thus he falls in with the rest of mankind who are like sleepers turning away from the public world of the wakeful into their ‘private’ world of dreams,” Granger 2004, 246.

that Heraclitus' intention when criticizing Pythagoras was to include him among the ignorant masses, who are unaware of what the common and universal Logos transmits.

In any case, it is worth underlining that, although Heraclitus had to acknowledge Pythagoras' unquestionable wisdom, he limited it to the range of his research activity, as a manifest result of his appropriation, accumulation, and selection of the wisdom of others. Thus, in Heraclitus' opinion, Pythagoras distinguished himself for having appropriated the knowledge of others to conform to his own wisdom.

Nevertheless, Heraclitus' accusation, as we will see later, was not new. We know from other testimonies that, during his many journeys, Pythagoras accumulated a vast wisdom that conferred on him a particular character that distinguished him from others.

In order to clarify the nature of this wisdom, Heraclitus defined it as *polymathie*, "multiknowledge." This substantive fits perfectly with Pythagoras' famous and widely acknowledged dedication to gathering varied forms of knowledge. With the term *polymathie*, Heraclitus attempted to lower his status and fame as *sophos*, of wise man, unanimously ascribed to him the early sources. Heraclitus himself made it clear that this was his intention by arguing, in another fragment, that different sorts of knowledge, *polymathie*, do not teach intelligence, *nous*. If this were the case, they would have taught diverse thinkers, Pythagoras among them: "Much learning does not teach understanding. For it would have taught Hesiod and Pythagoras, and also Xenophanes and Hecataeus," πολυμαθίη νόον ἔχειν οὐ διδάσκει· Ἡσίοδον γὰρ ἂν ἐδίδαξε καὶ Πυθαγόρην αὐτίς τε Ξενοφάνεά τε καὶ Ἑκαταίον.¹¹

With this relentless insistence on relating Pythagoras to *polymathie*, Heraclitus intended to degrade his status as a man of wisdom, to set him apart from the more traditional conception of wisdom, *sophia*, represented by the select group of wise men – the seven wise men – with whom he himself felt sympathy.¹² Thus, Heraclitus placed Pythagoras in contrast to his own conception of wisdom and the wise as something divine and unachievable.¹³ Indeed, Heraclitus believed that genuine wisdom could mean only to capture the truth transmitted by the Logos, the principle that unifies reality, which presents itself as multiple and diverse to the senses. Pythagoras represented precisely the opposite of what Heraclitus intended with his postulation of a unique Logos, a principle that even unified opposites; in contrast, Pythagoras' endeavour was a dispersed and multiple search for knowledge that does not provide true intelligence about things, but rather a

11 B 40 DK.

12 Bias, one of the seven wise men, was one of the few characters praised by Heraclitus: "In Priene lived Bias son of Teutamenes, who is of more account than the rest," B 39 DK.

13 "Of all those whose accounts I have heard, none has gone so far as this: to recognize what is wise, set apart from all," B 108 DK; "the wise is one, knowing the plan by which it steers all things through all," B 41 DK. Trans. Ch. Kahn.

simple plurality of forms of knowledge that are useless for the achievement of true wisdom. Achieving the Heraclitean *logos* requires, in sum, intelligence, *nous*, that is to say, precisely what is not conferred by *polymathie*.¹⁴

At this point in the presentation it is convenient to turn to an issue related with the topic of this book, “Forms and Transfers of Pythagorean Knowledge: Askesis – Religion – Science.” It is very possible that, with his hostile attitude, for the first time in Western history Heraclitus questioned what the orientation of science should be, whether to promote opening it to the world, transforming it into *philosophia*, or remaining closed as *sophia*. This controversy reveals that philosophy emerged as a novel alternative to the more archaic and traditional conception represented by the stern notion of *sophia*. Pythagoras believed that all knowledge deserved to be learned, regardless of whose it was and where it came from. This is clearly opposed to Heraclitus’ attitude, who believed that *sophia* should always be original, first-hand learning, and, therefore, inaccessible to the immense majority of mortals.¹⁵

This is why, in this controversial context, much is made clear by the fact that Heraclitus was the first to use the word “philosopher” in relation to the research of many things: *χρηὶ γὰρ εὖ μάλα πολλῶν ἱστορας φιλοσόφους ἄνδρας εἶναι*, “Men who love wisdom (*philosophoi*) must be good inquirers into many things.”¹⁶ Although this statement has been interpreted in many different ways, it is noteworthy for our analysis, because the word *φιλοσόφους*, “knowledge lovers,” is directly associated with the expression *μάλα πολλῶν ἱστορας*, “inquirers into many things;” it emphasizes the fact that Pythagoras *ἱστορίην ἡσκησεν ἀνθρώπων μάλιστα πάντων*, “pursued inquiry further than all other men.” Furthermore, by directly relating the philosophers to the inquirers of many things, *μάλα πολλῶν ἱστορας*, Heraclitus made it clear that he considered philosophy a synonym of the reviled *polymathie* generated from the sterile Pythagorean inquiry.

It hardly seems mere coincidence that the creation of the word “philosopher” has traditionally been attributed to Pythagoras. Moreover, it is essential for understanding the background of the Heraclitean criticism, while at the same time it confirms that the prestige of the incipient *philosophia*, as opposed to the traditional *sophia*, was at stake in this dispute. In this context, Cicero’s attribution of the creation of the word “philosopher” to Pythagoras contributes to clarifying

14 “The nature of the *logos* which he (sc. Heraclitus) has composed as an expression of his own wisdom (is) in contrast to that piling up of erudition which he despises as *polymathie*, ‘the learning of many things,’” Kahn 1979, 20.

15 “It is not difficult to see why Heraclitus is hostile to any form of second-hand learning, to both hearsay and book-learning. Reliance on second-hand learning is at odds with the kind of first-hand experience Heraclitus considers to be important or essential for ‘understanding,’” Granger 2004, 250.

16 B 35 DK. Some scholars, such as Marcovich (1967, 26), claim that it was not Heraclitus who wrote the word “philosophers,” but Clement of Alexandria, who transmitted the fragment. Nevertheless, these arguments seem insufficient. For this reason, we believe that it needs to be regarded as genuine, as defended by, among other specialists, Mouraviev 2006, 44.

the issue.¹⁷ According to a well-known passage in Cicero's *Tusculanae Disputationes*, all who pursued the contemplation of nature were esteemed and called wise (*sophoi, sapientes*) and that designation of them went back to Pythagoras: *omnes, qui in rerum contemplatione studia ponebant, sapientes et habebantur et nominabantur, idque eorum nomen usque ad Pythagorae manavit aetatem*.¹⁸ To justify this view, following Heraclides Ponticus' story, Cicero informs us that Pythagoras answered that he was a "philosopher" to the question posed by Leon the tyrant of Phlius, "who admiring his genius and eloquence, asked him what art he regarded as specially his own," (*cuius [sc. Pythagoras] ingenium et eloquentiam cum admiratus esset Leon, quaevisse ex eo, qua maxime arte confideret; at illum: artem quidem se scire nullam, sed esse philosophum*).¹⁹ After telling this tale Cicero concluded that, "nor was Pythagoras merely the inventor of the name; he enlarged (*amplificator*) the range of subjects embraced in philosophy."²⁰

Although such eminent scholars as W. Burkert have expressed doubts about the veracity of Cicero's story,²¹ it nevertheless stresses the most salient aspects of the figure of Pythagoras, and attributes to him the coinage of the word "philosopher." This strengthens the hypothesis that Heraclitus criticized Pythagoras for having been the first to adopt philosophy as a way to achieve wisdom. Heraclitus viewed a philosopher like Pythagoras – in contrast to the true *sophoi* – as no more than an intruder, an inquirer into the knowledge of many others, upon which he made up his own *sophie*, which was nothing more than a useless accumulation of different sorts of knowledge, *polymathie*.

Despite these criticisms, however, Pythagoras attained an extraordinary prestige. No doubt this charisma was enhanced by the fact he introduced to Greece the knowledge he had acquired in his numerous and frequent journeys, especially to Egypt, as can be read in the following testimony by Isocrates:

17 According to some ancient sources, such as Diodorus Siculus 10.10, Pythagoras invented the word "philosopher" because he was hostile to the Seven Sages and to the genuine *sophia* which they represented: Ὅτι Πυθαγόρας φιλοσοφίαν, ἀλλ' οὐ σοφίαν ἐκάλει τὴν ἰδίαν αἴρεσιν. Καταμεμφόμενος γὰρ τοὺς πρὸ αὐτοῦ κεκλημένους ἑπτὰ σοφοὺς ἔλεγεν, ὡς σοφὸς μὲν οὐδεὶς ἔστιν ἂν θρῶπος ὧν καὶ πολλάκις διὰ τὴν ἀσθένειαν τῆς φύσεως οὐκ ἰσχύων πάντα κατορθοῦν, ὃ δὲ ζηλῶν τὸν τοῦ σοφοῦ τρόπον τε καὶ βίον προσηκόντως ἂν φιλόσοφος ὀνομάζοιτο. – Pythagoras called the principles he taught *philosophia* or love of wisdom, but not *sophia* or wisdom. For he criticized the Seven Wise Men, as they were called, who lived before his time, saying that no man is wise, being human, and many a time, by reason of the weakness of his nature, has not the strength to bring all matters to a successful issue, but that he who emulates both the ways and the manner of life of a wise man may more fittingly be called a "lover of wisdom." Trans. C. H. Oldfather.

18 Cic. *Tusc.* 5.3.8.

19 Cic. *Tusc.* 5.3.8. Cf. φησιν αὐτὸν ἐρωτηθέντα ὑπὸ Λέοντος τοῦ Φλιασίων τυράννου τίς εἴη, φιλόσοφος εἰπείν, D. L. 8.8.

20 Nec vero Pythagoras nominis solum inventor, sed rerum etiam ipsarum amplificator fuit. Qui cum post hunc Phliasium sermonem in Italiam venisset, exornavit eam Graeciam, quae magna dicta est, et privatim et publice praestantissimis et institutis et artibus, Cic. *Tusc.* 5.4.10.

21 Burkert 1960.

Πυθαγόρας ὁ Σάμιός ἐστιν· ὃς ἀφικόμενος εἰς Αἴγυπτον καὶ μαθητῆς ἐκείνων γενόμενος τὴν τ' ἄλλην φιλοσοφίαν πρῶτος εἰς τοὺς Ἕλληνας ἐκόμισεν, καὶ τὰ περὶ τὰς θυσίας καὶ τὰς ἀγιστείας τὰς ἐν τοῖς ἱεροῖς ἐπιφανέστερον τῶν ἄλλων ἐσπούδασεν, ἡγούμενος, εἰ καὶ μηδὲν αὐτῷ διὰ ταῦτα πλεόν γίγνοιτο παρὰ τῶν θεῶν, ἀλλ' οὖν παρὰ γε τοῖς ἀνθρώποις ἐκ τούτων μάλιστ' εὐδοκμήσειν.

Pythagoras of Samos having travelled to Egypt became a student of them and also was the first to bring philosophy to the Greeks and more conspicuously than others he seriously interested himself in sacrifices and in ceremonial purity, since he believed that even if he should gain thereby no greater reward from the gods, among men, at any rate, his reputation would be greatly enhanced.²²

Isocrates' text provides very interesting complementary information that matches the description offered by other testimonies, such as Pythagoras' well known and documented time in Egypt, during which he adopted the modest attitude of pupil, μαθητής, appropriate for one who had defined himself as a knowledge lover and inquirer into many things. Moreover, the practice of this inquiring *askesis* among the Egyptians allowed him to accumulate knowledge that he later took to Greece, being the first to bring philosophy to the Greeks. With this striking expression Isocrates may have intended to insinuate, as Heraclitus had denounced, that Pythagoras constructed his own philosophy, which had little to do with the kind of wisdom that, until then, was common in Greece. Likewise, Isocrates' testimony underscores the idea that Pythagoras devoted himself to learning religious knowledge, including sacrifices and rites, which, as noted in other testimonies, he practised much more than others, ἐπιφανέστερον τῶν ἄλλων ἐσπούδασεν, which explains how he attained an extraordinary reputation among them, παρὰ γε τοῖς ἀνθρώποις ἐκ τούτων μάλιστ' εὐδοκμήσειν.

Owing to all of this, the reading of Heraclitus' fragment leads to the conclusion that it coincides with what other sources transmit as a platitude: that Pythagoras exercised inquiry more than anyone else. From it he constructed his own wisdom, ἑαυτοῦ σοφίην, probably constituted, among other things, many sorts of knowledge he learned in Egypt about religious matters. This great volume of knowledge ended up being transformed, due to the accumulation of multiple sorts of knowledge, into philosophy. Heraclitus, nevertheless, viewed this frenetic inquisitive activity as nothing more than a useless *polymathie*.

3 What was the practice of *kakotechnie*?

Heraclitus' fragment concludes with a fourth substantive, κακοτεχνίην, with which culminates the ascending gradation of his criticism. To highlight this effect, Heraclitus forced a repeated homoioteleuton of -ien, which ends the four

22 Isocr. *Bus.* 28.

words ἱστορίην, ἑαυτοῦ σοφίην, πολυμαθίην, and finally κακοτεχνίην. Hence what is presented first as “inquiry,” ἱστορίην, is called “own wisdom,” ἑαυτοῦ σοφίην, which is nothing more than the accumulation of knowledge, πολυμαθίην, and “artful knavery,” κακοτεχνίην. It remains to be seen whether, as we showed for the three previous words, ἱστορίην, σοφίην, and πολυμαθίην, there are also indications in earlier sources that can explain what Pythagoras’ practice of κακοτεχνίην may have actually been.

In order to give an answer to this controversial issue we must keep in mind that Diogenes Laertius cited Heraclitus’ fragment in an attempt to clarify whether Pythagoras had written any books. Against this possibility, Heraclitus suggests that Pythagoras rather selected among “these” books to confect his own wisdom, which was no more than the accumulation of knowledge and artful knavery. Diogenes added two reports to illustrate the possible ground for this accusation: according to Aristoxenus, Pythagoras took most of his ethical doctrines from Themistoclea,²³ the Priestess of Delphi, and according to Ion of Chios, he attributed some of the writings he composed to Orpheus. Both pieces of information agree in linking Pythagoras to two names related to two highly relevant religions: Themistoclea, with Delphi and Apollo; Orpheus, with Orphism.

Regarding the latter, it is striking that Pythagoras appealed to Orpheus as the author of his supposed books. It is an uncontroverted fact that Orpheus is a mythical figure with no historical existence. However, due to the supernatural influence of his musical power over other beings, he attained a remarkable fame, as reflected in the fact that Ibycus, one of the earliest testimonies, referred to him as *onomakliton Orphea*, “Orpheus famous of name.”²⁴

In this sense, it is worth noting that the habit of attributing books written by others to Orpheus is well attested, to the point – though this is no more than a conjecture – that what came to be known as “Orphism” could have originated precisely from the practice of attributing to him the authorship of books that, logically, he could never have written. There are several testimonies to the existence of books supposedly authored by Orpheus. Euripides provides one in the scene in which Theseus scolds his son Hippolytus for dealing with “the smoke of many writings” attributed to Orpheus.²⁵ The other is the very well known and often discussed passage in the *Republic* in which Plato denounces the sorcerers and charlatans, *agyrtaí kai manteis*, who presented “a hubbub of books,” also attributed to Musaeus and Orpheus,²⁶ in order to demonstrate that they possessed the supernatural powers they preached.

²³ Porph. *VP* 41.

²⁴ Ibyc. 864 T Bernabé.

²⁵ Eur. *Hipp.* 952–957.

²⁶ Plat. *Resp.* 364b5–365a3. “The books ascribed to Orpheus must have been legion already in the fifth century,” Edmonds 2011, 53.

Could have Pythagoras been, as suggested by some scholars, one of the first to proceed in this way, attributing his own writings to Orpheus, as stated by Ion of Chios, and thus meriting Heraclitus' criticism of practicing *kakotechnie*?²⁷

In order to answer this question, we need to keep in mind, first, Pythagoras' tendency to establish his direct relation with the gods or extraordinary figures, such as Apollo, Hermes, or Abaris. In the case of Orpheus, this link grew in time to the point that both figures, and the movements that they originated – Pythagorism and Orphism – became attached to each other. This progressive fusion was facilitated by the innovative introduction in Greece of the belief in the soul's immortality, which was associated, originally, with the names of Pythagoras and Orpheus.

Herodotus, in fact, provides some information that must be considered in relation to Pythagoras' role in the elaboration and introduction of this idea to Greece. The Greek historian argues that the first to postulate the soul's immortality were the Egyptians, from whom some Greeks, subsequently, took this notion and presented it as if it were theirs:

Πρῶτοι δὲ καὶ τόνδε τὸν λόγον Αἰγύπτιοι εἰσι οἱ εἰπόντες, ὥς ἀνθρώπου ψυχὴ ἀθάνατός ἐστι, τοῦ σώματος δὲ καταφθίνοντος ἐς ἄλλο ζῶον αἰεὶ γινόμενον ἐσδύεται· ἐπεὶ δὲ πάντα περιέλθῃ τὰ χερσαῖα καὶ τὰ θαλάσσια καὶ τὰ πετεινά, αὐτὶς ἐς ἀνθρώπου σῶμα γινόμενον ἐσδύνει· τὴν περιήλυσιν δὲ αὐτῇ γίνεσθαι ἐν τρισχιλίοις ἔτεσι. Τούτῳ τῷ λόγῳ εἰσι οἱ Ἑλλήνων ἐχρήσαντο, οἱ μὲν πρότερον, οἱ δὲ ὕστερον, ὥς ἰδίῳ ἐαυτῶν ἔοντι τῶν ἐγὼ εἰδῶς τὰ οὐνόματα οὐ γράφω.

The Egyptians were also the first to claim that the soul of a human being is immortal, and that each time the body dies the soul enters another creature just as it is being born. They also say that when the soul has made the round of every creature on land, in the sea, and in the air, it once more clothes itself in the body of a human being just as it is being born, and that a complete cycle takes three thousand years. This theory has been adopted by certain Greeks too – some from a long time ago, some more recently – who presented it as if it were their own. I know their names, but I will not write them down.²⁸

Many scholars have argued that this passage must allude to Pythagoras because the description of the immortality of the soul coincides with what is considered to

27 "Since there seems to be no good evidence for Orphic poetry before the time of Pythagoras, we should perhaps take seriously the judgment of those ancient critics who, in the fifth and fourth centuries BC, claimed that the poems ascribed to Orpheus were in fact composed by Pythagoras and his followers," Kahn 2001, 20.

28 Hdt. 2.123. Trans. Selincourt / Burn.

be his most basic acknowledged teaching.²⁹ Moreover, its Egyptian provenience coincides with his renowned journey to Egypt,³⁰ where, as confirmed by Isocrates' testimony, he acquired multifarious religious knowledge. However, even though these arguments are of great value to claim the identification of Pythagoras as the main candidate among the Greeks in the context of this presentation, it is decisive that Herodotus asserted that those who appropriated the Egyptian notion of the soul's immortality presented it as if it were theirs. In fact, the expression that Herodotus used, ὡς ἰδίῳ ἑωυτῶν ἐόντι, "as if it were their own," is reminiscent of Heraclitus' charge that Pythagoras constructed his own wisdom, ἐποιήσατο ἑαυτοῦ σοφίην, from his inquiries and compilation of others' ideas and works, which was, thus, a demonstration that, indeed, he practised kakotechnie. It all seems to suggest that Herodotus, in contrast to Heraclitus, decided not to write down the names of those who presented the Egyptian notion of the soul's immortality as theirs, to avoid exposing them.³¹

An additional passage by Herodotus, the earliest of the testimonies to linking the Orphics directly to the Pythagoreans, provides highly relevant information. Thus, when noting the Egyptians' custom of not dressing with wool at religious ceremonies or being buried in it, because they did not consider it to be chaste, ὀσιον, he adds that in this they coincide with those "called" Orphic and Bacchic, but that they really are Egyptians and Pythagoreans. Herodotus added that there was a so-called sacred discourse, ἱρὸς λόγος, about these practices:

Ὁμολογέουσι δὲ ταῦτα τοῖσι Ὀρφικοῖσι καλεομένοισι καὶ Βακχικοῖσι, ἑοῦσι δὲ αἰγυπτίοισι, καὶ <τοῖσι> Πυθαγορείοισι· οὐδὲ γὰρ τούτων τῶν ὀργίων μετέχοντα ὀσιόν ἐστι ἐν εἰρινέοισι εἶμασι θαφθῆναι. Ἔστι δὲ περὶ αὐτῶν ἱρὸς λόγος λεγόμενος.

They agree in this with practices called Orphic and Bacchic, which are in fact Egyptian and Pythagorean: for it is impious, too, for one partaking of these rites to be buried in woollen wrappings. There is a sacred discourse about this.

29 "What he (sc. Pythagoras) said to his followers no-one can say with assurance, for it was no ordinary silence that they kept. But what has become best known to everyone is, first, that the soul is immortal and furthermore changes into other kinds of animals... Pythagoras seems to have been the first to introduce these teachings into Greece," Porph. VP 19. Trans. C. H. Kahn. "That Pythagoras taught the doctrine of metempsychosis is generally regarded, and rightly, as the one most certain fact in history of early Pythagoreanism," Burkert 1972, 120. Cf. Porph. VP 19.

30 "As early as Herodotus he (sc. Pythagoras) is connected with Egypt," Burkert 1972, 112.

31 On the other hand, we cannot discount the possibility that Herodotus' refusal to write the names was an ironic allusion to the law of silence that Pythagoras imposed on his followers to stop them from divulging the knowledge he transmitted to them. On this issue see Cornelli 2011, 192.

Although there are two versions of this passage, depending on whether the information comes from the Florentine or the Roman manuscripts, we favour the latter. The information they offer is much better adjusted, as we have seen, to that reported by the other sources.³² Indeed, the Herodotean text offers a fundamental piece of information that supports the hypothesis that we are trying to defend in this presentation. Observe that Herodotus asserts that those “called,” καλεομένοισι, Orphic and Bacchic are really Egyptians and Pythagoreans. As other scholars have noted, the participle καλεομένοισι contrasts with the participle εἶουσι and suggests that although the Orphics were known as such after the name of Orpheus, they “are” really Egyptians and Pythagoreans.³³ Likewise, this association between Egyptians and Pythagoreans – in the light of the information we have already analysed – means that Egyptian knowledge about the soul’s immortality and religious ceremonies was learned and appropriated by Pythagoras and his followers. The fact that Herodotus added that there was a *hiros logos* about all of this seems to confirm, yet again, the possibility that Pythagoras had compiled these teachings in a sacred book, which, according to the testimony of Ion of Chios, he himself may have attributed to Orpheus. If this were the case, we would find ourselves facing a new manifestation of *kakotechnie*...

In time, this practice of using the name of Orpheus as the author of the Pythagorean writings would have engendered the belief that it was Orpheus personally who had taught Pythagoras, who, in turn, would have transcribed these teachings as a sacred book, such as the one Herodotus mentioned. Thus Iamblichus argues “nor is it to be doubted that when Pythagoras composed his treatise *Concerning the Gods*, he received assistance from Orpheus, on which account also he called it *The Sacred Discourse*, because it contains the flower of the most mystical place in Orpheus.”³⁴ Based on Iamblichus’ testimony, Proclus adds that Pythagoras learned the doctrine transmitted by Orpheus “through arcane narrations” in Thrace from an initiate named Aglaophamus.³⁵ Proclus’ testimony also adds that Pythagoras set out this wisdom in a *hieros logos*, a “sacred discourse,” and that through it “the wisdom of the gods arrived to the Greeks through the Orphic tradition.”³⁶

Hence, the earliest testimonies about Pythagoras seem to confirm that the accusation of what Heraclitus qualified as *kakotechnie* could be related to the appropriation of knowledge learned in Egypt about the soul’s immortality and diverse ritual practices, which would have ended up being compiled in a sacred

32 The Florentine manuscripts simply read Ὁμολογέουσι δὲ ταῦτα τοῖσι Ὀρφικοῖσι καλεομένοισι καὶ Πυθαγορείοις. For a detailed analysis of the problems of both texts, see Casadesús 1994.

33 How / Wells 1928, 207; Linforth 1941, 42.

34 Iamb. *VP* 146 = *OF* 249 T.

35 On this issue see Brisson 2000.

36 Procl. 507 T Bernabé.

discourse, a *hiros logos*, whose authorship, finally, would end up being attributed to Orpheus.

4 Other affinities between Pythagoras and Orpheus

Pythagoras' knowledge was not limited to theoretical aspects. It also encompassed practical facets, whose actions suggest that Pythagoras followed the model offered by Orpheus' extraordinary feats, including his journey to Hades. With regard to this, there is a striking story that Herodotus tells about Zalmoxis, one of Pythagoras' slaves, who, after being freed by him, went to Thrace and preached the knowledge acquired from his master. To convince his listeners of the soul's immortality – that it lives forever and that death is no more than a transitory moment – he built himself an underground dwelling where he spent three years. When the Thracians cried as if he had died, he reappeared during the fourth year, thus convincing them that all he asserted was true.³⁷ Diogenes Laërtius reports a similar action, though attributing it to Pythagoras, according to the information transmitted by Hermippus:

Pythagoras, on coming to Italy, made a subterranean dwelling and enjoined on his mother to mark and record all that passed, and at what hour, and to send her notes down to him until he should ascend. She did so. Pythagoras some time afterwards came up withered and looking like a skeleton, then went into the assembly and declared he had been down to Hades, and even read out his experiences to them. They were so affected that they wept and wailed and looked upon him as divine.³⁸

Leaving aside the more or less fantastic details of both stories, what stands out is that, as in the case of Orpheus, Pythagoras' accomplishments were also related to his return journeys to Hades. As suggested by the sources, however, these were nothing more than tricks, a "fraudulent return from the underworld."³⁹ Such fraudulent actions inevitably raise the question again, as Heraclitus criticized, of whether these were yet another demonstration of Pythagorean *kakotechnie*.

In addition to his visits to the world of the dead it all suggests that Pythagoras elaborated an image very similar to that of the mythical Orpheus. Like Orpheus he used music for healing in the form of *epodai* or enchantments and, like the Thracian singer, Pythagoras possessed the capacity to communicate with animals to calm them. The similarity with Orpheus on this issue is so evident that Iamblichus argued that, "Pythagoras demonstrated that he possessed the same dominion as Orpheus over savage animals, and that he allured and detained them by the power of his voice."⁴⁰ However, given that this issue has already

³⁷ Hdt. 4.95.

³⁸ D. L. 8.41. Trans. R. D. Hicks.

³⁹ Kahn 2001, 12.

⁴⁰ Iamb. VP 62.

been dealt with in extension another work that has just been published,⁴¹ we simply bring it up to conclude this presentation with the hypothesis that Pythagoras used the name of Orpheus not only to increase the prestige of his compilations and inquiries, but also to emulate the most characteristic traits of his peculiar and fascinating personality. However, all this effort to configure his own wisdom was nothing more, in Heraclitus' opinion, than a misappropriation resulting from his dishonest practice of *kakotechnie*.

In any case, Heraclitus' critical attitude must be understood as a reaction to Pythagoras' novel and even revolutionary way of understanding science. His ascetic devotion to the search for all kinds of knowledge, without distinguishing the domain of religion from that of science, represented a radical change in the archaic conception of wisdom. Owing to his open and well travelled outlook, this *sophia* was transformed into *philosophia*. With his outlook, Pythagoras demonstrated that the richest and most productive way of advancing knowledge is inquiry, *historie*, into the whole set of human knowledge. Pythagoras, in sum, provided knowledge with a decisive thrust, showing that, in its broadest sense, it advances with everyone's contribution, be it scientific or religious. His principal merit lies in his adoption of ancient forms of knowledge which he mixed, adapted, and transformed thus initiating the long path of what today we proudly call "science."

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The Making of Pythagoreanism: Orpheus, Aglaophamus, Pythagoras, Plato

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My goal here is to show that the image of Pythagoras and the Pythagoreans that has come down to us was, throughout the ages, constructed from scratch by philosophers whose presuppositions became more and more clear as Platonism re-appropriated Pythagoreanism.¹ By attributing its origins to a Pythagoreanism that itself depends on Orphism, Platonism established itself as the oldest and only true philosophical doctrine, for it depends on the word of the gods, who cannot lie. We can thus better understand how and why the scientific dimension of Pythagoreanism could have been gradually transferred to its religious dimension, particularly concerning numerology and the soul's destiny.

To provide a historically plausible image of Pythagoras and the Pythagoreans, scholars are faced with a gigantic sand-blasting job, consisting in analysing and evaluating the mass of late information, which did not cease to proliferate, as time went on, around an enigmatic personage and his followers. A cross-bred philosophical appropriation of Pythagoreanism by Platonism and of Platonism by Pythagoreanism explains this phenomenon. It is absolutely necessary to acknowledge the importance and fruitfulness of this transfer in the history of Western thought, but one should not confuse ideology and reality. In order to combat this confusion, I will appeal to the history of philosophy in Antiquity, and namely to Iamblichus.

The title of the book by Walter Burkert, *Weisheit und Wissenschaft, Studien zu Pythagoras, Philolaos und Platon*, translated into English as *Lore and Science in Ancient Pythagoreanism*² gives a good indication, it seems to me, of the main difficulty that recurs in all studies on Pythagoreanism. In Pythagoras and Pythagoreanism, what share shall we grant on the one hand to science, understood as coherent, stable knowledge relating to the sensible world, and on the other hand to religion, understood as the belief in the existence of beings who are not perceived in any way by the senses, but whose power is acknowledged and who are a cause for concern? This question is essential for determining the Pythagorean way of life.

1 See for instance, Schofield (ed.) 2014.

2 Burkert 1972.

Here are the positions I maintain on this subject:

- 1) As far as Pythagoras is concerned, we can say nothing certain, except about his existence, for doubt subsists even about the dates of his birth and death (580–490 BC).³
- 2) Herodotus (480–420 BC),⁴ and some authors of the Middle Comedy (fourth c. BC)⁵ show that Pythagoreans were open to the influence of some religious traditions, particularly Orphism. But Plato (428–348 BC)⁶ and Aristotle (384–322 BC)⁷ knew Pythagoreans living several decades after Pythagoras' death, primarily for their scientific, philosophical, and even political activity.⁸ There was then a balance between religion and science.⁹
- 3) Now, it was on the occasion of the revival of Pythagoreanism,¹⁰ in which the surrounding Middle Platonism was interested, that science and religion were to merge totally with one another,¹¹ and Pythagoras became a sort of medium between gods and men.¹²
- 4) Finally, Iamblichus (died in AD 325)¹³ established the “philosophical myth” which, connecting first Pythagoras to Orpheus, then Plato to Pythagoras, triggered among interpreters the conditioned reflex associating the name of Pythagoras with theological speculation on number and the soul, on reincarnation, and on recollection.¹⁴

1 Platonism and Pythagoreanism in the Early Empire

From the end of the first century BC and at the beginning of the Roman Empire, the dominant philosophy was Stoicism: it even pervaded the Platonism of the time, which was under the influence of a cultivated and eclectic Scepticism. In the face of this stoicized and aristotelianized Platonism, Platonists gradually felt the need for a philosophy that would appear as a means of coming to another order of reality: that of the intelligible realm and of the divine, which could be apprehended only by the soul. Thus, there occurred among the Platonists the renewal which has been called Middle Platonism and was represented by Plutarch

3 Brisson 2012, 97–107.

4 For an analysis of the decisive sentence of the passage (II 81), see Burkert 1972, 126–130. Some words seem to be interpolated in the passage.

5 For a list of the fragments, see Burkert 1972, 198–199. And for a presentation, see Battezzato 2008, 139–164.

6 Brisson 2003; Huffmann 2013; Horky 2013.

7 Zhmud 2013; Casertano 2013.

8 Brisson 1987a and 2013.

9 Zhmud 2011.

10 See for instance Schofield (ed.) 2014.

11 On this move, see Athanassiadi / Macris 2013.

12 Macris 2003.

13 Brisson 2002.

14 Bernabé 2013 and Casadesús 2013.

of Chaeronea, Atticus, Alcinoüs, and Numenius, who was the most aggressive against the New Academy.¹⁵

Shortly before the beginning of the Christian era, we find, for instance in Eudorus and Philo of Alexandria, that Platonism gradually moves closer to Pythagoreanism, which itself was undergoing a renewal at the time.¹⁶ M. Baltes¹⁷ thought that the work of pseudo-Timaeus of Locri belonged to this trend, which seems to have promoted the production of other pseudo-Pythagorean works which were strongly influenced by Platonism. Be this as it may, it was in the course of this period of time, close to the beginning of the Christian era, that most of the Neopythagorean treatises were written.¹⁸ They were followed by the Neoplatonists. Longinus, Porphyry's first master, has the following to say about them, in the Preface to his book *On the End* quoted by Porphyry in his *Life of Plotinus*:

Plotinus, it would seem, expounded the principles of Pythagorean and Platonic philosophy more clearly than anyone before him. The words of Numenius and Cronius and Moderatus and Thrasyllus come nowhere near the accuracy of Plotinus' treatises on the same subject (Porphyry, *Life of Plotinus*, 20, 71–75, trans. A. H. Armstrong).

In addition, a close reading of the *Life of Pythagoras* leads one to conclude that Iamblichus possessed a library of these spurious writings, and that he subscribed to that synthesis of Platonism and Pythagoreanism¹⁹ which Plotinus and his assistant Amelius,²⁰ accused of plagiarizing Numenius, considered as going without saying. It was Iamblichus who, most probably using this literature, was to transform the philosophy of Plato into a theology, by seeking the agreement of this theology with that of Orpheus, by way of Pythagoras.

2 Iamblichus: when philosophy became theology

Iamblichus was a philosopher of Syrian origin who lived in all probability between AD 240 and 325, and ran a School at Apamea. In this Syrian town, he may have been associated with the teaching of Amelius, the disciple of Plotinus, who himself had probably succeeded Numenius sometime later.

Iamblichus' teaching at Apamea lasted throughout the first quarter of the fourth century, and his School was flourishing and animated. In particular, we know he had one very gifted student, Theodorus of Asine, who positioned himself as the Master's rival. Theodorus remained under the influence of Numenius and Porphyry, and continued to defend the Plotinian thesis that one part of the soul does not descend into the world of generation. After Iamblichus' death

15 Numenius, frag. 27–28 des Places.

16 Staab 2009.

17 Baltes 1972.

18 The surviving fragments have been collected by Thesleff 1965.

19 For a list, see Macris 2002.

20 On Amelius, see Brisson 1987b.

(around AD 325), Sopatros took over the succession at Apamea, while Aedesius founded a new school at Pergamum. This school must have been important, for it was there that, in AD 351, the future Emperor Julian had his first contact with Neoplatonism.

As a professor of philosophy, Iamblichus explained the canonical texts of Plato and Aristotle, year after year. His role in this area seems to have been, if not very original, then at least highly important for the development of the Neoplatonic schools. He seems to have elaborated the doctrine that each work to be commented upon, and in particular each Platonic dialogue, has one theme and one only, which is its scope (*skopos*), to which everything else must be referred. On the basis of this result, he proposed a reading order of Plato's dialogues that led the disciple through the three traditional divisions of philosophy: ethics (*Alcibiades I*, *Gorgias*, *Phaedo*), logic (*Cratylus*, *Theaetetus*), and physics (*Sophist*, *Statesman*), in order to introduce him to the crown of these studies, theology (*Phaedrus*, *Symposium*), and even enable him to reach the summit of theology, the Good (*Philebus*). Last came the *Timaeus* and the *Parmenides*, which recapitulated all Plato's teachings in the fields of physics and theology. This reading order, which Iamblichus must have followed in his teaching, was to be authoritative among all later Neoplatonists.²¹

A number of commentaries on the Platonic dialogues, all of which are unfortunately lost, issued forth from his activity as a professor. However, we do have a few fragments of his commentary on the *Timaeus*, as well as of his commentaries on the *Parmenides* and the *Phaedrus*. The contents of his other commentaries are known to us only through remarks on details made by his successors: this is the case for *Alcibiades I*, the *Phaedo*, the *Philebus* and the *Sophist*.²²

Iamblichus' activity as a professor also led him to comment on the works of Aristotle, and commentaries by him on works by Aristotle are known (albeit less well than the commentaries on the Platonic dialogues), for instance on Aristotle's *Categories*, *Prior Analytics*, the *De interpretatione* and even the *De Caelo*.²³

As far as Plato is concerned, Iamblichus defended a radically new position in the interpretation he proposed of the hypotheses of the *Parmenides*, in which the Neoplatonists read the organization of the first principles. In order to ensure a place high in the hierarchy of the gods for the "superior beings," he was led to raise up the entire hierarchy of the gods by one rank, and to transcend the limits of the *Parmenides*, since he was obliged to posit an ineffable god outside the hypotheses of the *Parmenides*. To refute Iamblichus' position, Porphyry had to recourse to Plotinus. By producing a new edition of Plotinus' work, organized according to the Plotinian and Porphyrian interpretation of the hypotheses of the *Parmenides*, Porphyry, at the very end of his life (around AD 301), tried to oppose to Iamblichus' system – that is, to theurgy – the authority of the man who was his

²¹ Festugière 1969.

²² See Dillon (ed.) 1973.

²³ Larsen 1972.

master at Rome, Plotinus. In so doing, he remained faithful to Greek rationalism, as represented in particular by Plotinus.²⁴ In order to understand Iamblichus' approach, we must understand how he defined philosophy, and how he conceived of its history.

In the first paragraph of his *Life of Pythagoras*, intended to serve as an introduction to his ten-volume work *On the Pythagorean School*,²⁵ Iamblichus writes:

At the start of every philosophical investigation, it is after all the custom, at least for all who are sound-minded, to invoke God. But at the outset of that philosophy rightly believed to be named after the divine Pythagoras, it is surely all the more fitting to do this; for since this philosophy was at first handed down by the gods, it cannot be comprehended without the gods' aid (Iamblichus, *Life of Pythagoras*, § 1, trans. J. M. Dillon / J. P. Hershbelle).

For Iamblichus, Pythagorean philosophy, which consists above all in the study of the four mathematical disciplines of the *quadrivium*,²⁶ is a mere preparation for the true philosophy, that of Plato. Its program is given in the *Republic*, and it culminates in the second part of the *Parmenides*, considered a veritable treatise on theology.²⁷ To establish this line of attack, Iamblichus needed to link Pythagoras to a religious movement, which in this case happened to be Orphism. Let us see how he went about it.

Since philosophy is a gift from god, it is akin to a revelation. Iamblichus presents this revelation as the *Sacred Discourse* or the *Sacred Discourse on the gods*. Pythagoras does indeed present the philosophy he teaches as a revelation, about which he gives the following details:

If someone, then, wishes to learn whence these men (the Pythagoreans) received such a degree of piety, it must be said that a clear model for Pythagorean theology according to number is found in (the writings of) Orpheus. It is certainly no longer doubtful that Pythagoras took his inspiration from Orpheus when he composed his treatise *On Gods*, which he also entitled the *Sacred Discourse*, since it sprang from the most mystic part of the Orphic corpus... It is certainly clear from this *Sacred Discourse* (or *Discourse on the Gods*, both titles exist) who gave Pythagoras the discourse on gods, for it says: This (discourse) is what I, Pythagoras son of Mnesarchus, learned on initiation in the Thracian Libethra, from Aglaophamus the initiator, who communicated to me that Orpheus, son of Calliope taught by his mother on Mt. Pangaeon, said: "The eternal being of number is a most provident principle of the whole heaven, earth, and of the intermediate nature; more-

24 Saffrey 1992.

25 On this subject, see O'Meara 1989.

26 Hadot I. 1994.

27 See Saffrey / Westerink 1968.

over it is a source of permanence for divine (men) and gods and daemons” (*Life of Pythagoras* § 145–147, trans. J. M. Dillon / J. P. Hershbell).

The complicated explanations advanced by Iamblichus concerning the literary paternity of this *Sacred Discourse* [*On Gods*] and its transmission manifest a concern to prove its authenticity.

Outside of Iamblichus, there exists in Antiquity no other testimony concerning a personage as important as Aglaophamus, except that of Proclus, who accepts the authenticity of pseudo-Timaeus of Locri, and believes that, when writing his *Timaeus*, Plato was following this Pythagorean model, which was either received as a gift, bought, or stolen²⁸ when he went to Sicily and the South of Italy:

It now remains to show what conceptions we ought to have of the Gods mentioned by Plato. For of the ancients, some related what is said about them to fables, others to the fathers of cities, others to guardian powers, others to ethical explanations, and others to souls. These however, are sufficiently confuted by the divine Iamblichus, who demonstrates that they wander from the meaning of Plato, and from the truth of things. After this manner therefore, we must say that Timaeus, being a Pythagorean, follows the Pythagorean principles. But these are the Orphic traditions. For what Orpheus delivered mystically through arcane narrations, this Pythagoras learned, being initiated by Aglaophamus in the mystic wisdom which Orpheus derived from his mother Calliope. For these things Pythagoras says in the *Sacred Discourse* (Proclus, *Commentary on the Timaeus* III, 167.32–168.15, trans. Th. Taylor slightly modified after the French translation).

It is interesting to note the reaction of Christian August Lobeck (5/6/1781 – 25/8/1860), who was a Professor at Königsberg for 46 years, beginning in 1814. His great work, *Aglaophamus, sive de Theologiae musticae graecorum causis*, published at Königsberg in 1829, in which he opposed Fr. Creuzer, whom he mocked by saying that Creuzer could find symbols under every rock, contains three parts, devoted respectively to the mysteries of Eleusis, the Orphic mysteries, and finally to the mysteries of Samothrace. Now, in this two-volume work that contains 1392 pages, Lobeck does not mention Aglaophamus until page 722, invoking the text by Iamblichus which we have just cited. He makes the following ingenuous comment:

Si antiquiores hunc librum cognitum habuissent, certe major Aglaophami et orgiorum Libethriorum foret celebritas, quae ante Iamblichum nemo commemoravit.

The most modern computer tools confirm Lobeck’s observation. A search on the TLG (Thesaurus Linguae Graecae) shows that no occurrence of the name Aglaophamus is detectable in all of Greek literature prior to Iamblichus. The adjective

²⁸ For more specific information, see Swift Riginos 1976, 165–174.

aglaophamos “of brilliant reputation” is attested only twice in all of Greek literature, as an epiclesis, said once of the Curetes [31.4] and again of the Muses [76.2] in the *Orphic Hymns*.²⁹ It can thus be assumed that the character of Aglaophamus is a pure invention: perhaps we even owe it to Iamblichus, who was anxious to prove the existence of an objective link between Orpheus and Pythagoras. Alternatively, Iamblichus may have been quoting a Neopythagorean pseudepigraphon, or perhaps he himself was responsible for the composition of that pseudepigraphon.

Let us return to Orpheus. Like all poets, Orpheus was inspired by the Muses, daughters of Zeus and of Mnemosyne (= Memory). In his case, this is all the more obvious in that he is the son of Calliope, the Muse whom Hesiod calls “the first one of all” (*Theog.* 79). In addition, Orpheus’ father is often given as Oeagros, a river of Thrace. One tradition³⁰ will have it that the Libethran mountains,³¹ a mountainous region of Thrace, were Orpheus’ fatherland. It was here that Pythagoras received his initiation into Orphism. In addition, it was on Mount Pangaeon, a Thracian mountain between Strymon and the sea, that Orpheus was supposed to have learned from his mother the essential elements of his doctrine. Since this was an initiation, we can understand that Orphic teaching transmitted esoteric doctrines. Pythagoras’ initiate was Aglaophamus, a personage that Iamblichus mentions for the first time. Whatever the content of this initiation, Pythagoras, who, like Orpheus, expressed himself in the Doric dialect (§ 243) and who exerted an influence over wild animals with his song (§ 62), was taught a doctrine that came directly from the gods, and which he had the mission of transmitting to mankind. Moreover, Pythagoras, like Orpheus, was associated with the nether world of Hades, where he descended and whence he returned. His power extended not only to animals, but even to natural forces.

Pythagoras was supposed to have revealed the contents of these initiations in a work entitled the *Sacred Discourse [on the gods]*.³² A brief glance at the remaining fragments of this work allows us to note the following three facts. 1) Iamblichus (died in AD 325) was the first to mention this work, in his *Life of Pythagoras*. 2) Syrianus (died in AD 437) alludes to it six times in his *Commentary on the Metaphysics*. 3) The citations of the *Sacred Discourse* by Iamblichus and Syrianus allow

29 References are to the edition by Quandt; see also Morand, A.-F. 2001. According to Johannes Lydus (*Fragmenta incertae sedis* 7, ed. Wünsch), one of the Sirens was named *Aglaopheme*: Lydus claims to derive his information from Aristotle in the *Peplos*, an Orphic work whose authenticity is generally considered dubious. See also Eustathius, *On the Odyssey*, XI 167, XII 12, and a scholium to Apollonius of Rhodes, IV 892.

30 This tradition is represented in particular by Strabo, Iamblichus *VP* § 28, Proclus. *In Tim.* III 168.9–14 Diehl, and the *Orphic Argonautica* (v. 50 and 1373–1376).

31 There seems to have been confusion, whether conscious or unconscious, between these places in the tradition relative to Orpheus. Pausanias (9.30, 9–11) places Orpheus’ tomb at Libethra, a Boeotian city near Mount Helicon; there are also Libethran mountains in Boeotia (Pausanias 9.34, 3–4).

32 A prose pseudepigraphon written in the Dorian dialect, described by Holger Thesleff 1961, 104–106.

us to recognize in it the statement of a theology of numbers, as well as a celebration of number as constituting the world.

3 The status of the soul

How can we explain, on a strictly philosophical level, Iamblichus' approach, which sought to entrench philosophy in the tradition of the Mysteries, going back as far as Orpheus by way of Pythagoras? The answer to the first question seems to me to be as follows: Iamblichus refuted Plotinus' thesis that an upper part of the soul remains among the intelligibles:

For the soul is many things, that is all things, both the things above and the things below down to the limits of all life, and we are each one of us an intelligible universe, making contact with this lower world by the powers of soul below, but with the intelligible world by its powers above and the powers of the universe; and we remain with all the rest of our intelligible part above, but by its ultimate fringe we are tied to the world below, giving a kind of outflow from it to what is below, or rather an activity, by which that intelligible part is not itself lessened. (*Enn.* III 4 [15], 3.21–27, trans. A. H. Armstrong; see also V 1 [10], 3.1–3).

For Iamblichus, the soul is completely united to the body. This is the Aristotelian position, which implies another one: the soul's salvation must necessarily come from elsewhere, and in particular from theurgy,³³ as Iamblichus explains in these lines:

Granting, then, that ignorance and deception are faulty and impious, it does not follow from this that the offerings made to the gods and divine works are invalid, for it is not pure thought that unites theurgists to the gods. Indeed what, then, would hinder those who are theoretical philosophers from enjoying a theurgic union with the gods? But the situation is not so: it is the accomplishment of acts not to be divulged and beyond all conception, and the power of the unutterable symbols, understood solely by the gods, which establishes theurgic union. Hence, we do not bring about these things by intellection alone; for thus their efficacy would be intellectual, and dependent upon us. But neither assumption is true (*De myst.* II 11, 96.13–97.4, trans. E. C. Clarke / J. M. Dillon / J. P. Hershbell).

³³ Basing himself on Cremer 1969, Hadot 1978 gives the following definition of theurgy, as opposed to magic: "One may speak of the utilization by the theurgist of certain magical practices, but they are integrated within an approach that is radically different from magic. For theurgy is an operation in which it is the gods that give divine efficacy to human action, so that human action receives its meaning because of a divine action and initiative. It would be interesting, in this perspective, to compare the Christian theology of the sacraments and the Neoplatonic theology of the theurgical operation," 719.

The truth can be reached only as the result of a revelation dispensed by the gods themselves, who thus contribute a remedy for human weakness, and it is ritual that enables us to achieve it. Yet how can such a conception of philosophy as revelation find its justification within Plato's work itself? An answer to this question presupposes a highly tendentious interpretation of two passages from the *Phaedrus* concerning madness.³⁴

For Plato, madness is defined as a deviation from the normal behavior and customs of a given human group. This deviation may be due either to human illnesses or to a divine impulse. In the first case, the human being's behavior is transformed because he accedes to a higher domain, that of the gods: we can then say that the human being is mad, but his madness lets him accede to a higher level of reality. In the *Phaedrus*, four levels of "divine" madness are distinguished.

Socrates. And [we said] that there are two kinds of madness, one produced by human illness, the other by a divinely inspired release from normally accepted behavior.

Phaedrus. Certainly.

Socrates. We also distinguished four parts within the divine kind and connected them to four gods. Having attributed the inspiration of the prophet to Apollo, of the mystic to Dionysus, of the poet to the Muses, and the fourth part of madness to Aphrodite and to Eros, we said that the madness of Eros is the best. We used a certain sort of image to describe erotic passion; perhaps it had a measure of truth in it, though it may also have led us astray. And having whipped up a not altogether implausible speech we sang playfully, but also appropriately and respectfully, a story-like hymn to my master and yours, Phaedrus – to Eros, who watches over beautiful goods (Plato, *Phaedrus* 265a–b, trans. A. Nehamas / P. Woodruff).

Socrates explains in this passage that the amorous madness he attributes to Aphrodite and to Eros is situated in a quite particular context: that of philosophy. In this context, love consists not in seeking and possessing beautiful bodies, but in moving from a beautiful body to a beautiful soul, in order to succeed once again in remembering the contemplation of the intelligible, to which the human soul devoted itself exclusively before falling into a body. This is why amorous madness is considered as the best, for in fact it corresponds to the practice of philosophy. In this passage from the *Phaedrus*, philosophy is, to be sure, associated with a divine madness, such as divination, initiation, and poetry, but Plato does not place it on the same level as the three others, for two reasons. 1) Whereas divination, the practice of initiation, and poetry introduce human beings into the world of the gods, they do not allow them to accede to the contemplation of the intelligible. 2) While these practices allow a passive attitude on the part of human

34 *Phaedrus* 245b–c and especially 265a–b.

beings, philosophy appears on the contrary as a constant apprenticeship of death, or the liberation of the soul with regard to the body, with a view to acceding to the contemplation of the Intelligible. This passage from the *Phaedrus* attracted Iamblichus' attention in Book III of his *On the Mysteries of Egypt*, when, after having inquired into the causes of divine madness (chapter 8), he evokes music (chapter 9), initiations (chapter 10), and divination (chapter 11).

Insofar as, at the beginning of the *Life of Pythagoras*, Iamblichus insists on the fact that philosophy was taught at the beginning by the gods, that it is impossible to grasp it otherwise than by their intervention, and that no human effort gives access to it, even progressively, he places philosophy, poetry, divination, and initiation on the same level. This is also true as far as the person of Pythagoras is concerned. Pythagoras' relations with poetry, in which verse and music are mixed, are frequent.³⁵ Pythagoras was associated with divination to a much greater extent than Orpheus.³⁶ Pythagoras and the Pythagoreans accorded a great deal of attention to the mystic inspiration that is manifested in ceremonies of initiations to the Mysteries, with which philosophy is associated.³⁷ We find the vocabulary of the Mysteries throughout the *Life of Pythagoras*.

Iamblichus takes up all these themes, whose slow emergence can be followed from the renewal of Platonism and Pythagoreanism at the beginning of the Christian era, and gives them a true coherence for the first time. The end result is a "philosophical myth," that of Pythagoras' initiation into the Orphic Mysteries through the intermediary of Aglaophamus, which was to be taken up and refined by all the later Neoplatonists, particularly those of the School of Athens, for whom philosophy culminates in the second part of Plato's *Parmenides*, interpreted as a treatise on theology. In the context of this grandiose ascent towards the divine, the role of Pythagoras remained, following Aglaophamus, that of the "initiant," as Iamblichus tried to portray him in this veritable "philosophical myth" which, at the same time as it justified this watershed of Platonism, explained the philosophical orientation of the School of Athens, in which science and theology became indistinguishable.

4 The school of Athens and after

At the beginning of his *Platonic Theology*, Proclus provides a broad outline of the entire history of philosophy, in essential conformity with the position of Iamblichus:

35 According to Iamblichus, his father entrusted Pythagoras to the Homerid Creophylus (VP § 9); he uses the *Iliad* (VP § 39, 63, 217) and the *Odyssey* (VP § 255) in his School. He also uses music to cure illnesses (§ 110).

36 Pythagoras was associated with divination: that of Delphi, to be sure (VP § 82, 152), but all the others as well (VP § 25, 65, 106, 138, 149, 216). He practised divination by numbers (VP § 147); this is why the Pythagoreans honoured divination as much as music and medicine.

37 Iamblichus makes generous use of the vocabulary of the Mysteries to speak of philosophy (VP § 1, 14, 31, 72, 74, 75, 76, 90, 91, 92, 103, 104, 138, 151, 226, 227, 258).

These exegetes of the Platonic contemplation (*epopteia*), who have unfolded to us sacred narrations of divine principles because they [the exegetes] were allotted a nature similar to their leader [Plato], I should determine to be the Egyptian Plotinus and those who received the tradition of this doctrine from him. I mean Amelius and Porphyry, together with those in the third place who were their disciples and who attained such perfection that we could compare them to statues, viz.: Iamblichus and Theodorus of Asine, and any others who, after these, entered this divine choir to raise their own thoughts to the level of the Bacchants. From these, he who, after the gods, has been our guide to everything beautiful and good, receiving in an undefiled manner the most genuine and pure light of truth in the bosom of his soul, made us a partaker in all of Plato's philosophy, made us into his companions in the traditions he received in secret from those more ancient than he, and mostly made us a part of the choir of those singing the mystical truth of divine principles (*Platonic Theology* I 1, 6. 16–7.8 Saffrey / Westerink, trans. Thomas Taylor slightly modified after the French translation).

The postulate on which the School of Athens was founded was that Plato was a theologian. This postulate determines a twofold task: to extricate this theology from Plato's work, showing that it agrees with all the other theologies: of Pythagoras, of the *Chaldaean Oracles*, of Orpheus, and of Homer and Hesiod. Whether applied to philosophy or to poetry, the interpreter's task was assimilated to that of the mystagogue who guides the postulant towards initiation and *epopteia* in the mysteries.

With regard to the relations that philosophy must maintain with myths, the School of Athens continued along the same path as Plotinus and Porphyry, who were inspired in particular by Numenius and Cronius. However, both in the field of philosophy and in that of mythology, the approach of the School of Athens was much more systematic. In addition, the *Chaldaean Oracles* and the Orphic *Rhapsodies* here replaced the poems of Homer and Hesiod, which were however not entirely neglected as a reservoir of myths.

For Proclus, the stages are clearly marked. 1) First comes Plotinus, then 2) those who received the Neoplatonic doctrine from him, Amelius and Porphyry, 3) their disciples, Iamblichus and Theodore of Asine; finally, 4) Proclus' own master Syrianus. The "others" to whom he refers are in particular Priscus and Iamblichus II, who trained Plutarch of Athens, who, at the turn of the fourth–fifth centuries BC, was the first scholar to give the School of Athens the philosophical orientation it was to maintain down to Damascius.³⁸

³⁸ On this subject, see Saffrey / Westerink 1968, XXVI–XLVIII. One may also consult the work by Taormina 1989.

Taking up a tradition that accused Plato of plagiarizing³⁹ the Pythagoreans, but reversing it, since he intends to show Plato's originality with regard to the doctrine on which he is dependent, Proclus establishes a link between Plato's *Timaeus* and the famous treatise *On Nature*, attributed to Timaeus of Locri, which he regards not as a spurious writing, but as an original work dating from the fifth century,⁴⁰ which he supposes to have inspired Plato to write his dialogue.

At the very beginning of his *Commentary on the Timaeus*, Proclus writes:

It seems to me to be glaringly clear to all who are not utterly blind to serious literature that the aim of the Platonic *Timaeus* is firmly fixed upon the whole of physical inquiry, and involves the study of the All, dealing with this from beginning to end. Indeed, the Pythagorean Timaeus' own work has the title *On nature* in the Pythagorean manner. This was, in the sillographer's⁴¹ word, [the point] "from which Plato began when he undertook to do '*Timaeus*-writing'." We use this work as an introduction to our commentary, so that we should be able to know which of the claims of Plato's *Timaeus* are the same, which are additional, and which are actually in disagreement with the other man's – and make a point of searching for the reason for the disagreement. This whole dialogue, throughout its entire length, has physical inquiry as its aim, examining the same matters simultaneously in images and in paradigms, in wholes and in parts. It has been filled throughout with all the finest rules of physical theory, tackling simples for the sake of complexes, parts for the sake of wholes, and images for the sake of their originals, leaving none of the originative causes of nature outside the scope of the inquiry. (Proclus, *Commentary on Plato's Timaeus*, I, 1.1–23, trans. H. Tarrant).

This objective link, which associates Plato with Pythagoreanism by way of Timaeus of Locri, is extended by what Proclus says in Book III of his *Commentary on the Timaeus*, into a link between Pythagoreanism and Orphism. Moreover, the indications he gives concerning the Orphic theology – six reigns in succession, those of Phanes, Night, Ouranos, Kronos, Zeus, and Dionysos – make it clear, independently of all historical considerations, that for Proclus, Pythagoras was familiar with the dynasty of gods that play a role in the *Sacred discourses in 24 rhapsodies*.

³⁹ On these accusations of plagiarism, see Brisson 2000,

⁴⁰ For an edition with translation of this opusculum, see Marg 1972, Baltes 1972, and Tobin 1985. See also Centrone 1982.

⁴¹ Timon of Phlius (325–235 BC), a sceptic philosopher, follower first of Stilpo and then of Pyrrho, who wrote *Satires (Silloi)* in dactylic hexameters against the dogmatic philosophers, one of whom was Plato. There were also other anecdotes accusing Plato of having plundered the Pythagoreans to write the *Timaeus*, see above note 28.

dies, attributed to Orpheus.⁴² Such a conviction also allows us to understand why a *Hymn to number*⁴³ was attributed to Orpheus, of which Proclus cites several verses.

It was thus through the intermediary of Timaeus of Locri that Plato became familiar with the Pythagorean principles, which were in fact Orphic principles; since Pythagoras was initiated into the doctrines of Orpheus by Aglaophamus and since Plato was under the influence of Pythagoras, metaphysics and religion converge.

This interpretation, in which Pythagoreanism and Platonism were inseparable, and rooted in Orphic theology, was to be considered canonical in the Byzantine world, which, through the intermediary of Marsilio Ficino, transmitted it to the Renaissance West. This was the image that was taken up or combated by the first German historians of philosophy in the course of the eighteenth century.⁴⁴ In short, the polemics over the dividing line between science and religion in Pythagoras and in Pythagoreanism must be solved on the basis of a study of the history of philosophy in Antiquity, of which Iamblichus is the culmination.

At the beginning of the Roman Empire, the Platonists rejected probabilism, which the Old Academy had used against the Stoics, to come closer to thinkers who promoted a new form of Pythagoreanism associated with various religious trends, one of which was Orphism. Theology and numerology then occupied the first rank, and what became decisive was the care of a soul that featured a harmonic structure, had experienced a previous existence before coming into a body, and was to move into another body after the death of the one it then inhabited. Yet the care of the soul demanded a life that was very strict on the ethical level, and exhibited great solidarity on a political level. This is why the Pythagoreans defended their identity by renouncing writing as much as was possible, and utilizing a language with double meanings, which made use of enigmas, symbols, and passwords. This overall image of Pythagoreanism owed more to phantasms than to reality, but it was this image which was inherited by Platonism and it transformed Pythagoreanism by a kind of feedback effect. Iamblichus put an end to this two-fold transfer by means of the lineage of Orpheus-Pythagoras-Plato in a philosophical context, in which the soul rises back up toward the higher divinity from which it comes, not as a result of the abilities of its intellect, but through the practice of religious rites. This transfer was considered canonical first in the Neoplatonic school at Athens and Alexandria, then in the Byzantine world, which, through the intermediary of Marsilio Ficino, was transmitted to the Renaissance West.

This transfer is the source of the retrospective reading of Plato described in this paper, and according to which Pythagoras was initiated in the Mysteries of Orpheus, and Plato was inspired by Pythagorean doctrine when he wrote the *Timaeus*.

42 On the problem raised by the relations between the various versions of the theogonies attributed to Orpheus, see the "Introduction" to Brisson 1995.

43 O. Kern, *OT* 32, *OF* 309–317 = 20V F et 695–704 T Bernabé.

44 Tigerstedt 1974.

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II Metempsychosis

Philolaus on the Soul

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This paper is part of a larger project to expound and explore Philolaus' views on the nature of reality, *harmonia*, number, and knowledge, and their interrelations. On my view, Philolaus the Pythagorean proposed a theory of the structure of entities that brought Pythagorean thought up to date after a period in which it had lagged behind the sophisticated philosophical developments of the late fifth and early fourth centuries BC. Rejecting the doctrine of metempsychosis and the numerology characteristic of earlier Pythagorean thought, Philolaus conceived of a philosophically sophisticated way to comprehend existing things as products of limiters and unlimiteds (a view whose influence is evident in Plato's later work) and a generalization of the concept of number that guaranteed that the world and its constituents are intelligible and that their being and intelligibility is strictly dependent on their numerical essence.

I have discussed Philolaus' metaphysical theory elsewhere in conjunction with his generalized conception of *harmonia* as essentially involving number conceived in his new way.¹ The previous study concentrated on fragments B1–B6a. In the present paper I extend my previous analysis to encompass the soul. I maintain here that Philolaus regarded the soul as a *harmonia* in the sense developed in the fragments mentioned above. I shall discuss three sources of information relevant to Philolaus' view on the nature of the soul. First are the fragments B1, B2, B6, and B6a, which present Philolaus' theory of the nature and composition of existing things. In Part 1 I will give a very brief sketch of this theory. Since elsewhere he speaks of the soul as something that exists, considering it in the light of this metaphysical theory should help us understand his view on the nature of the soul. Second is the passage in Plato's *Phaedo* that refers to Philolaus and the passage where Philolaus' pupil Simmias sets out the view that the soul is a *harmonia*. In Part 2 I look at Simmias' view in the light of Philolaus' metaphysical theory, in which *harmonia* plays a crucial role, and I argue that there is no incompatibility, and that the context strongly indicates that the view which Simmias sets out is due to Philolaus. Third are two fragments of Philolaus (B13 and B14) that mention the soul. In Part 3 I argue that both fragments are compatible with the results of the preceding discussion.

1 I have discussed these matters in McKirahan 2011 and McKirahan 2013.

1 Philolaus's theory of the structure of reality

In fragments B1, B2, and B6 Philolaus provides a brief and highly abstract sketch of his theory of the nature of reality. In B6a he provides an illustrative example: a lyre tuned to play notes arranged according to certain intervals of pitch (an octave, and a fifth, and a fourth).²

B1: ἀ φύσις δ' ἐν τῷ κόσμῳ ἀρμόχθη ἐξ ἀπείρων τε καὶ περαιόντων καὶ ὅλος <ὁ> κόσμος καὶ τὰ ἐν αὐτῷ πάντα.

Nature in the *kosmos* was joined from both unlimiteds and limiters, and the entire (*kosmos*) and all the things in it.

B1 identifies two kinds of principles (unlimiteds and limiters) and three kinds of things formed from the principles (nature in the *kosmos*, the entire *kosmos* and all the things in the *kosmos*). It says that these three kinds of products are “joined” (ἀρμόχθη) from both unlimiteds and limiters.

B2: ἀνάγκα τὰ ἔοντα εἶμεν πάντα ἢ περαίνοντα ἢ ἄπειρα ἢ περαίνοντά τε καὶ ἄπειρα· ἄπειρα δὲ μόνον οὐκ αἰεί. ἐπεὶ τοίνυν φαίνεται οὐτ' ἐκ περαίνοντων πάντων ἔοντα οὐτ' ἐξ ἀπείρων πάντων, δῆλον τὰρα ὅτι ἐκ περαίνοντων τε καὶ ἀπείρων ὁ τε κόσμος καὶ τὰ ἐν αὐτῷ συναρμόχθη. δηλοῖ δὲ καὶ τὰ ἐντοῖς ἔργοις. τὰ μὲν γὰρ αὐτῶν ἐκ περαίνοντων περαίνοντι, τὰ δ' ἐκ περαίνοντων τε καὶ ἀπείρων περαίνοντί τε καὶ οὐ περαίνοντι, τὰ δ' ἐξ ἀπείρων ἄπειρα φανέονται.

It is necessary that the things that are be all either limiters or unlimiteds or both limiters and unlimiteds; but not in all cases only unlimiteds. Now since it is evident that they are neither from things that are all limiters nor from things that are all unlimiteds, it is therefore clear that both the *kosmos* and the things in it were joined together from both limiters and unlimiteds. The behavior of these things in turn makes it clear. For those of them that are from limiters limit, those that are from both limiters and unlimiteds both limit and do not limit, and those that are from unlimiteds will evidently be unlimited.

B2 calls both the principles and their products “things that are” (τὰ ἔοντα) and argues that two of these three kinds of products (the *kosmos* and the things in the *kosmos*) are joined together (συναρμόχθη) from both kinds of principles. B2 says nothing about the third kind of product, “nature in the *kosmos*,” that is reserved for B6.

B6: (1) περὶ δὲ φύσιος καὶ ἀρμονίας ὥδε ἔχει· (2) ἃ μὲν ἐστὼ τῶν πραγμάτων αἰδιος ἔσσα καὶ αὐτὰ μὰν ἃ φύσις θείαν τε καὶ οὐκ ἀνθρωπίνην ἐνδέχεται γνῶσιν (3) πλάν γὰρ ἢ ὅτι οὐχ οἷόν τ' ἦν οὐθενὶ τῶν ἔοντων

2 See references in n. 1.

καὶ γιγνωσκομένων ὑφ' ἀμῶν γὰ γεγενῆσθαι (4) μὴ ὑπαρχούσας τὰς ἐστοῦς τῶν πραγμάτων, ἐξ ὧν συνέστα ὁ κόσμος, καὶ τῶν περαινόντων καὶ τῶν ἀπείρων. (5) ἐπεὶ δὲ ταὶ ἀρχαὶ ὑπάρχον οὐχ ὁμοῖαι οὐδ' ὁμόφυλοι ἔσσαι, ἤδη ἀδύνατον ἦς κα αὐταῖς κοσμηθῆναι, εἰ μὴ ἀρμονία ἐπεγένετο ὥτινῶν ἂν τρόπῳ ἐγένετο. (6) τὰ μὲν ὧν ὁμοῖα καὶ ὁμόφυλα ἀρμονίας οὐδὲν ἐπεδέοντο, τὰ δὲ ἀνόμοια μὴδὲ ὁμόφυλα μὴδὲ ἰσοταχῇ, ἀνάγκη τὰ τοιαῦτα ἀρμονία συγκεκλεῖσθαι, εἰ μέλλοντι ἐν κόσμῳ κατέχεσθαι.

(1) Concerning nature and *harmonia* this is how it is: (2) the being (ἐστὼ) of things, which is eternal – that is, in fact, their very nature – admits knowledge that is divine and not human, (3) except that it was impossible for any of the things that are and are known by us, to have come to be (4) if there did not exist the being (ἐστὼ) of the things from which the *kosmos* is constituted – both the limiters and the unlimiteds. (5) But since the principles are not similar or of the same kind, it would be completely impossible for them to be brought into order if *harmonia* had not come upon them in whatever way it did. (6) Now things that are similar and of the same kind have no need of *harmonia* to boot, but those that are dissimilar and not of the same kind or of the same speed must be connected together in *harmoniai* if they are going to be kept in an orderly arrangement (*kosmos*).

B6 speaks of the “being” (ἐστὼ) of things and identifies it with their “very nature.” Here Philolaus explains the relation between “being” and *harmonia*. Things that are and that we know (that is, the *kosmos* and the things in the *kosmos*) could not have come to be if there did not exist the “being” of the limiters and unlimiteds from which the *kosmos* is constituted. But since limiters and unlimiteds are different in kind from one another, they could not have been brought into order or kept in an orderly arrangement (κοσμηθῆναι) if *harmonia* had not come upon them.

The “being,” or nature, of a thing I take to be something like what Aristotle would call its essence (τὸ εἶναι or τὸ τί ἦν εἶναι). We might say that what makes me a human being is that I have certain material parts that function in certain ways. For Philolaus, anything that is (an ἐόν) is constituted of unlimiteds and limiters preserved in an orderly arrangement by being connected together in *harmoniai*. The “being” of that thing – what makes it the thing that it is – is determined by the unlimiteds, the limiters, and the *harmoniai* that constitute it.

This is true both for what Aristotle would call universals and for what he would call particulars. In general human beings are composed of lungs, hands, etc. and each individual human is composed of two individual lungs, two individual hands, etc. For Philolaus, whatever the limiters and unlimiteds that combine to form humans may be, individual instances of those same limiters and unlimiteds will combine to form an individual human. The nature of the *harmoniai* in both cases will be the same.

B6 informs us that the “being” of things is eternal. This does not mean that the things themselves are eternal. What is eternal is what it is for anything to be the kind of thing that it is. For a lyre to be tuned in a certain way is, among other things, for the pitches of the notes played by the strings to have certain relationships. This always holds whether or not a given lyre is in tune, and it always holds regardless of whether any lyres exist at a given moment, or whether any existing thing is tuned in precisely that way.

B6a:³ ἁρμονίας δὲ μέγεθος ἐστὶ συλλαβὰ καὶ δι’ ὀξεῖαν· τὸ δὲ δι’ ὀξεῖαν μείζον τῆς συλλαβᾶς ἐπογδόω. ἔστι γὰρ ἀπὸ ὑπάτας ἐπὶ μέσσαν συλλαβὰ, ἀπὸ δὲ μέσσης ἐπὶ νεάταν δι’ ὀξεῖαν, ἀπὸ δὲ νεάτας ἐς τρίταν συλλαβὰ, ἀπὸ δὲ τρίτας ἐς ὑπάταν δι’ ὀξεῖαν. τὸ δ’ ἐν μέσῳ μέσσης καὶ τρίτας ἐπόγδοον, ἃ δὲ συλλαβὰ ἐπίτριτον, τὸ δὲ δι’ ὀξεῖαν ἡμιόλιον, τὸ διὰ πασῶν δὲ διπλόον. οὕτως ἁρμονία πέντε ἐπόγδοα καὶ δύο διέσεις, δι’ ὀξεῖαν δὲ τρία ἐπόγδοα καὶ διέσεις, συλλαβὰ δὲ δύο ἐπόγδοα καὶ διέσεις.

The magnitude of the *harmonia* is the fourth plus the fifth. The fifth is greater than the fourth by a 9:8 ratio. For from the lowest string to the second string is a fourth, and from the second string to the highest string is a fifth, but from the highest string to the third string is a fourth, and from the third string to the lowest string is a fifth. What is between the third string and the second string is a 9:8 ratio; the fourth has a 4:3 ratio, the fifth a 3:2 ratio, and the octave a 2:1 ratio. Thus the *harmonia* is five 9:8 ratios plus two half tones, the fifth is three 9:8 ratios plus one half-tone, and the fourth two 9:8 ratios plus one half-tone.

The tuned lyre is the example Philolaus uses in B6a to illustrate the nature of *harmonia*. How he might analyse something more complex, such as a human being, into limiters, unlimiteds and *harmoniai* is not easy to discern. In what follows I try to understand part of this puzzle on the hypothesis that Philolaus considered the soul to be the *harmonia* that constitutes the appropriate limiters and unlimiteds as a living creature.

2 Soul as *harmonia*

Plato mentions Philolaus by name only twice, both times in a single brief passage of the *Phaedo* (61d7, e7) where Cebes and Simmias, who had associated with him in Thebes, declare that he had said that it is not right to take one’s own life, but that he had not clarified his position. They ask Socrates to account for this view. Socrates, who had not himself heard Philolaus speak on that subject, then proceeds to give a justification for the prohibition on suicide, saying that this justification is given “in the mysteries”⁴ (62b–c); Socrates does not say that it was

3 I have discussed this fragment at length in McKirahan 2011 and McKirahan 2013.

4 The translations of extracts from the *Phaedo* are based on Grube 1997.

held by Philolaus. On this account we are the possessions of the gods, it is wrong for us to destroy ourselves without the gods' permission, and they will punish us if we do. Thus, Socrates' account of the ban on suicide depends on certain religious views not otherwise known to have been held by Philolaus. It is possible that they were held by Pythagoreans, but this passage cannot be considered evidence of this, let alone as evidence that Philolaus held those views. Conclusion so far: we do not know on what grounds Philolaus argued against suicide. Since reasons can be given against killing oneself that are neither religious nor philosophical, we cannot say whether the recommendation stems from Philolaus's general metaphysical theory. If (as I shall propose) Philolaus believes that individual souls are mortal, our single life may appear more precious than if we can just decide to stop at any point, commit suicide, start over again, and enjoy a new life from the beginning – and that is one reason against suicide.

Later in the dialogue these two former pupils of Philolaus present objections to Socrates' arguments for the immortality of the soul. Each of the two men presents an analogy which, if valid, will undermine if not positively refute the immortality thesis. The analogy that concerns us is the one proposed by Simmias (85e–86d).

By this point of the dialogue Socrates has divided entities into two classes: Forms and sensibles. Sensibles are tangible and perceptible by the other senses, while Forms are invisible and can be grasped by the soul. The Forms are eternal and imperishable, while the sensibles are temporary and perishable. In what is known as the Affinity Argument, Socrates declares the body to be akin to the sensibles, while the soul, which is invisible, is like the Forms, therefore immortal. Simmias then says (85e) that the same argument could be made in connection with *harmonia*, lyre, and strings. *Harmonia*, which is invisible, is present in a tuned lyre, but if the wood and the strings that make up the lyre are damaged or destroyed the *harmonia* of the lyre perishes. In fact, it typically perishes before the wood and strings of the lyre are utterly destroyed. Why, then, should we consider the invisible soul more permanent than the invisible *harmonia* of a body? The analogy with the lyre suggests that so far from being immortal the soul may actually perish before the body.

So far we have just an analogy: the soul is in certain respects like the *harmonia* of a tuned lyre. Simmias has not declared that he believes the soul in fact is a *harmonia*, let alone that Philolaus held this view. But in what follows Simmias does subscribe to this belief, saying, “we suppose the soul to be precisely something of this kind, just as our body is stretched and held together by the hot and the cold, the dry and the moist and other such things, our soul is the mixture and *harmonia* of those things when they are mixed with each other rightly and in due measure” (86b5–c2). And he asserts that if the soul is in fact a *harmonia* it is perishable (86c2–5).

Later in the dialogue Socrates takes up Simmias' point that the soul must be perishable if it is a *harmonia* of the constituents of the body. He restates it with approval (91e5–92c10) and goes on to argue that if the soul is a *harmonia* it necessarily lacks other characteristics of the soul. Three characteristics, in fact. First (92e4–93a10), a *harmonia* is dependent on its material constituents. It does not rule its material constituents but is ruled by them, whereas the soul rules the body and is not ruled by it (80a). Second (93a11–e3), things can be more or less fully harmonized, but souls cannot be more or less completely souls: an imbalance of bodily constituents may account for sickness, but if a soul is a *harmonia*, then it is destroyed immediately the *harmonia* is lost. Third (93e4–94b3), the *harmonia* theory cannot account for differences in character, which reside in the soul. If every soul is fully harmonized, every person should be fully virtuous.

What are we to make of this? In the first place it is clear that Simmias initially maintains the *harmonia* theory (86b) with its implication, which he himself draws, that the soul is mortal (86c–d), and also that he abandons it (92d–e) when he sees that it conflicts with Socrates' Recollection Argument (73b–77a), which he finds well founded and entirely convincing. So Socrates wins Simmias over to his view, and having done so goes on to bring further arguments against the *harmonia* theory.

Why does he make these further arguments? I propose two reasons. First, because as things stand, the *harmonia* theory could still be accepted as true by anyone who is not as convinced as Simmias by the Recollection Argument. And there may well have been such people. After all the assumption on which the argument is based, which Simmias found so convincing, is the theory of Forms, which was introduced and accepted without any argument (76d–e). This gives Socrates a strong motive to show that the *harmonia* theory of the soul is unacceptable on other grounds. The second reason for these additional arguments is to point out that the *harmonia* theory gives no account of what Socrates considers important functions of the soul: to rule the body and to be the seat of one's moral character. The idea that the soul is a *harmonia* of the material constituents of the body is unacceptable because it does not provide any way to account for these further roles.

If we regard Simmias as initially presenting Philolaus' theory and subsequently abandoning it, by the same reasoning we can suppose that Philolaus, who had not been confronted by Socrates, did not abandon his own theory. An advantage of having Simmias present it as something that he himself believes is that he can be shown abandoning it when he finds it in conflict with the arguments Socrates presents.

But is there any good reason to suppose that Philolaus maintained the *harmonia* theory? This has been denied by many and remains a controversial question. In my view there are two considerations that tell in favour of this view. First, the first person plural in Simmias' assertion that, "we suppose the soul to be precisely something of this kind" (86b6–7). The "we" must refer at least to Simmias

and Cebes,⁵ but neither of these two men is presented as an original thinker,⁶ and Simmias does not claim to have been the author of the theory. Thus it seems likely that the “we” includes their teacher Philolaus.⁷

Second, the very term *harmonia* is reminiscent of the importance of that concept in Philolaus’ account of how reality is structured, and the use of the tuned lyre as an example of *harmonia* points to Philolaus B6a. I believe that the theory proposed by Simmias according to which the soul is a *harmonia* of the constituents of the body fits well with Philolaus’s metaphysical theory of limiters, unlimiteds, and *harmonia*, even though it does entail that the soul is mortal. In fact, there is no reason to think that Philolaus was ignorant of this consequence of the *harmonia* theory. There is also no evidence that he believed the soul to be immortal.⁸

I will take this as a working hypothesis, that Philolaus held that the soul is a *harmonia*. I will test the hypothesis by seeing whether the soul can be construed as a *harmonia* of the type indicated in B6 and B6a. In the rest of this section I will argue that Simmias’ exposition of the *harmonia* theory can be so construed.

The sentence at 86b8–c2 speaks of the body and the soul. Just as our body is “stretched and held together by the hot and the cold, the dry and the moist and other such things, the soul is the mixture and *harmonia* of these very things when they are mixed with each other rightly and in due measure (καλῶς καὶ μετρίως).” The reference to “stretching” and “holding together” sounds like a description of the way the taut strings of a lyre are the cause of the *harmonia*

5 The old view that “we” refers to people in general seems to me to be a desperate attempt to avoid this obvious claim. After Socrates’ presentation of the Recollection Argument and the Affinity Argument Simmias and Cebes whisper to one another and after some prodding from Socrates admit that they have objections to his view and Simmias declares that the two of them will present their objections in turn (84c–85d). The sentence containing “we” comes very shortly afterwards. (It is the third sentence in Simmias’s speech.) In this context “we” must refer at least to Simmias and Cebes. And it cannot refer to Socrates, who explodes the *harmonia* theory immediately afterwards; Simmias could have had no reason to suppose that Socrates believed this theory.

6 It is true that Cebes presents a view of the soul that is incompatible with the *harmonia* theory, comparing it to a tailor who makes his own clothes. Just as the tailor wears out many suits but his last suit survives him, so a soul may go through many bodies but perish before the last body it inhabits does (86e–87b). But this is not a theory of the soul’s nature; it is presented as an objection to the Recollection Argument, a dialectical move rather than an original conception.

7 Another consideration in favour of this conclusion is found in the immediately following assertion of Echecrates, whose conversation with Phaedo is the frame for the *Phaedo* dialogue: “the statement that the soul is some kind of *harmonia* has a remarkable hold on me, now and always, and when it was mentioned it reminded me that I had adopted this view” (88d3–6). Echecrates was a Pythagorean from Phlius and a pupil of Philolaus (as we learn from Aristoxenus, fr. 19.3–4). His assertion is compatible with his having adhered to the *harmonia* theory until, on listening to Phaedo recounting Socrates’ conversation with Simmias, he suddenly realized that the *harmonia* theory is incompatible with the soul’s immortality.

8 See Huffman 1994, 330–332, especially “Certainly it will not do simply to assert that since he was a Pythagorean he must think that the soul was immortal” (330).

described in Philolaus B6a. Where Simmias speaks of pairs of opposites (hot and cold, wet and dry), the tension on the lyre's strings can be described in terms of the opposites taut and slack, while on a monochord or a single string of a lyre, where the pitch of the note produced depends on the length of the vibrating string, the opposition can be described in terms of long and short. Further, the notes produced can be described in terms of the opposites high-pitched and low-pitched.

For Simmias a body is alive (possesses soul) when it has appropriate amounts or balances or degrees of hot and cold, dry and moist, etc. We can die of overheating or hypothermia, of dehydration or dropsy.⁹ For Philolaus a lyre is tuned when its strings play the right notes (not too high or too low in relation to one another) and this happens when the tension in the strings is correctly adjusted so that they are not too taut or too loose.

For Philolaus the tuned lyre involves an "unlimited" (here defined in terms of high-pitched notes and low-pitched notes), which amounts to a continuous range of higher and lower musical pitches, and a "limiter," which determines certain notes or intervals in the unlimited range of possible notes or intervals. An anachronistic example of such a limiter would be the C major scale – a series of notes of definite pitches singled out from the infinite number of possible pitches. High and low identify a particular kind of range (musical pitch, as opposed to length or temperature). Considered simply as the range of musical pitch, this range is without limits; no particular notes or intervals are specified. On this unlimited range a system of limits is imposed (definite musical notes separated by definite intervals) which constitutes one of an infinite number of possible such systems. A tuned lyre is a physical object composed of frame and strings, in which the strings produce notes that are related to one another in the way specified by the tuning.

A living animal has a body that is susceptible of having a range of temperatures (different mixtures of hot and cold), a range of dry and moist, and so on for all the relevant ranges. Each of these ranges is per se without limits but on each of them one or more systems of limits can be imposed. The range of hot and cold can be defined by the Celsius and Fahrenheit scales, the range of moist and dry can be specified in terms of absolute, relative, or specific humidity. As with hot and cold, these ranges are not found in the abstract. There we had a lyre, consisting of sound box, arms, yoke, bridge, and strings, on which the tuning is imposed by putting the strings under tension, and here we have a body. The body is "stretched and held together" (whatever precisely that may mean) by the hot and the cold, etc. just as the tuned lyre is both stretched and held together by the tension in its strings. When appropriate *harmoniai* are imposed, the lyre is tuned in a particular way, and the body is alive in its particular way (supposing that the combination of *harmoniai* characteristic of a dog is different from that of an amoe-

9 More precisely, the conditions that lead to this excessive amount of fluid can cause death.

ba.) Exactly how this works out in detail is problematic and I am doubtful that either Simmias or Philolaus (if this was his theory) worked it out much further than what we read in this passage of the *Phaedo*.

Simmias presses the analogy (86c2–5). The lyre's tuning is destroyed when the lyre is destroyed; so also the body's *harmonia* is destroyed when the body is destroyed. One cause of death is sickness, and this can be described as what happens when the stretching of the hot and the cold and the other constituents of the body ceases to be right and in due measure; if the stretching is far enough removed from the ideal state, the soul is destroyed and we die.

This theory of disease is reminiscent of theories found in Alcmaeon and the Hippocratic corpus.

Alcmaeon B4 comes closest to what Simmias says.¹⁰ It goes as follows:

Alcmaeon holds that what preserves health is the equality of the powers – moist and dry, cold and hot, bitter and sweet and the rest – and the supremacy of any of them causes disease; for the supremacy of either is destructive. The cause of disease is an excess of heat or cold; the occasion of it is surfeit or deficiency of nourishment; the location of it blood, marrow, or the brain. Disease may come from external causes, from quality of water, local environment, or toil, or torture. Health, on the other hand, is a measured blending of the qualities. (trans. based on Longrigg)

This fragment names (among others) the two contrasting pairs that Simmias does: hot and cold, and moist and dry, and it describes health as a measured blending (a *κρᾶσις* that is *σύμμετρος*) of hot and cold, etc. where Simmias speaks of *κρᾶσις* of the hot and the cold and of their being blended *μετρίως*. The fragment of the physician Alcmaeon unsurprisingly talks about the causes of disease, not about the nature of the soul, and it seems plausible that Simmias or Philolaus took over this theory and applied it to the soul.

In any case, Socrates rejects the application. An instrument is either in tune or out of tune, but in the latter case it can be more or less out of tune. Likewise, either we are healthy or we are sick, and if we are sick we can be more or less sick. But in the case of the soul, which is consistently conceived in the *Phaedo* as the vital principle, the bearer of life (although other powers are ascribed to it in addition), either we are alive or we are dead, and if we are dead that's that: there are no degrees of being dead. This is the substance of the objection at 93b.

I will come back to the question of Philolaus's connection with this doctrine below.

¹⁰ See also VM 14 and NH 4.

3 Philolaus B13 and B14

This final part of my paper takes up Philolaus B13 and B14, both of which mention the soul. B13 neatly divides into two halves.

Philolaus B13

καὶ τέσσαρες ἀρχαὶ τοῦ ζώου τοῦ λογικοῦ, ὥσπερ καὶ Φιλόλαος. ἐν τῷ Περι φύσεως λέγει ἐγκέφαλος, καρδία, ὀμφαλός, αἰδοῖον: (A) κεφαλὰ μὲν νόου, καρδία δὲ ψυχᾶς καὶ αἰσθήσεως, ὀμφαλὸς δὲ ῥιζώσιος καὶ ἀναφύσεως τοῦ πρώτου, αἰδοῖον δὲ σπέρματος καταβολᾶς τε καὶ γεννήσεως. (B) ἐγκέφαλος δὲ <ἔχει> τὴν ἀνθρώπῳ ἀρχάν, καρδία δὲ τὴν ζώου, ὀμφαλὸς δὲ τὴν φυτοῦ, αἰδοῖον δὲ τὴν ξυναπάντων: πάντα γὰρ ἀπὸ σπέρματος καὶ θάλλοντι καὶ βλαστάνοντι.

There are four principles of the rational animal, as Philolaus too says in *On Nature*: the brain, the heart, the navel, and the genital organ. (A) The head [is the location] of intellect, the heart of soul and sensation, the navel of the taking root and growth of the first [part], the genital organ of the depositing of seed and of generation. (B) The brain [contains] the origin of man, the heart <contains the origin> of living things, the navel that of plants, and the genital organ that of them all. For they all both flourish and grow from seed.

B13 presents more problems that I can discuss here. Briefly, I believe that part (A) identifies “vital functions” of humans, some of which are found in other living things, and that the vital function associated with the soul (here as frequently elsewhere in Greek thought) is being alive, which is different from the other vital functions and can (and in fact does) exist in individuals who lack one or more of the other vital functions mentioned in part A. For present purposes the relevant question is whether B13 is compatible with the view that the soul is a *harmonia*, specifically the kind of *harmonia* found in Philolaus’s metaphysics. In what follows I will present a case for interpreting it this way. Finally I will consider whether Philolaus can meet Socrates’ objection that turns on the fact that musical instruments can be more or less in tune and animals can be more or less healthy but nothing can be more or less alive or dead.

I will proceed by listing some features that a lyre and a living being have in common, and showing how these commonalities support the view that there is a kind of Philolaic *harmonia* that constitutes certain bodies as living things just as there is a *harmonia* that constitutes a lyre as a functioning (that is, a tuned) lyre.

- (1) A lyre has components: a sound box, strings, etc. Likewise a body has components.
- (2) The lyre’s components must be arranged and put together in a certain way to become a lyre. But it may not yet be a lyre that can make music. Likewise for the body’s components (although with the body there is no external agent that

puts them together). But the same arrangement of parts is found in a living animal and in a corpse.

- (3) Once put together in the right way, the lyre's components must be adjusted appropriately for it to function as a lyre, which it does by making notes. (The strings must be put under tension.) Likewise for the body's components (although there is no external agent that adjusts them). The body's components must have some kind of "vital tension"¹¹ (whatever that might mean) for the body to function as a living thing; when it does so, it is alive.
- (4) For a lyre to be in tune the tension must be adjusted so that the notes produced by the strings are appropriately related. To be perfectly tuned the notes must be in accordance with a set of musical intervals that are precisely defined by numerical ratios. To be out of tune is for them to deviate (but not too far) from the standard defined by those ratios. If it is close enough to the standard, the lyre will be playable but it will not be perfectly in tune. Correspondingly, to be alive, the body's parts must be "mixed together rightly and in due measure," in Simmias' phrase. A body can be alive even if the mixture is not perfectly right and in perfectly due measure, provided that it does not deviate too far from that standard. If it is close enough to the standard, the body will be alive but it will function sub-optimally.

On this account, the *harmonia* which is the soul resembles the *harmonia* which is the tuning of a lyre. They are ideal cases which are difficult to achieve and maintain in lyres and bodies. The ratios 2:1, 3:2 and 4:3 define musical intervals. A lyre tuned to, shall we say, 1.95:1, 3.02:2 and 4.04:3 will be out of tune, but it will still be a functioning musical instrument. Further, it is very likely that no physical lyre has ever been tuned perfectly – that none has ever been closer to 2:1 than, say 2.0000000001:1. In any case, we could not tell the difference.

Simmias does not say that a lyre in such a condition does not function as a lyre at all, or that a lyre that functions sub-optimally no longer counts as a lyre. He talks of the extreme case where someone breaks the lyre so that it cannot make any notes at all. Clearly this does not imply that he thinks that a lyre cannot still exist and be a lyre if it is out of tune. But what he says is true, and this is the case that is relevant to the point he is making, which has to do with cases where a living thing dies, not where it merely becomes ill or reaches a state where it functions imperfectly.

Short of the situation where the lyre is destroyed or dismantled, there is a range sufficiently far from the unique state of being perfectly tuned, in which the lyre exists but cannot make notes, another range (closer to the perfectly tuned state) where we would call it out of tune, and one situation for each defined tuning where it is perfectly in tune.

11 Cf. "stretched and held together" (*Phaedo* 86b7–8).

The same holds for the body. When Simmias speaks of diseases and other evils relaxing and stretching the body without measure (ἀμέτρωως) (86c2–4), he does not mean to say that if we are sick we are dead. Death will occur – that is, the soul ceases to exist – when the body is stretched or relaxed beyond a certain point. The body still exists but it does not perform any vital functions. Short of that, we can be more or less sick. As with the lyre, the *harmonia* of the body that makes it a perfectly functioning living thing is an ideal that may be difficult or impossible to achieve or maintain in individual living beings.

In both cases the *harmonia* is a standard to aim for and from which deviations can be measured. The musician tunes his lyre to be as close as possible to the standard. Where the musician is external to the lyre, the living organism is self-regulating. The body maintains itself as close to the ideal condition as it can. Sometimes it needs help. Doctors understand the ideal condition better than their patients, and they know what to do to restore their patients' bodies to something approximating the ideal condition, when the actual condition of their body is far enough removed from the ideal state that the patient is diagnosed as being ill.

When the lyre is damaged badly enough, the components can no longer produce any notes at all. Therefore there is no tuning. Likewise, when the body is damaged badly enough, the creature lives no more. Its components have lost their vital tension and the soul has ceased to exist. On this account the souls of living things are mortal.

But perhaps surprisingly, there is a sense in which soul is immortal. We define the harmonic intervals in terms of the exact and perfect ratios 2:1, 3:2 and 4:3. As Philolaus says in B6a, these are ingredients of the tuned octave which he there calls a *harmonia*. On my understanding of B6, the “being” (ἔστω) of these intervals is identical with these ratios qua embodied in appropriate matter (a lyre, for example). This holds always and everywhere – though it is rarely, if ever, found perfectly achieved in actual instruments. The notes of imperfectly tuned instruments can be heard, as would the notes of a perfectly tuned instrument. However, even a perfectly tuned instrument is not always in tune. Simmias points out that whereas the lyre is physical, bodily, composite, and akin to what is mortal, the *harmonia* is without body, beautiful, and invisible (85e4–86a3). He might have added “akin to what is eternal” in contrast with “akin to what is mortal.” Similarly, the ratios of hot and cold, etc. that define the state of the ingredients of a perfectly functioning living thing are not perceptible, but if they are embodied in a living thing they account for its living optimally.

This way of understanding Simmias as referring to Philolaus' theory of the structure of entities is consistent with the interpretation of Philolaus' fragments presented in the first part of this paper. It also shows how Philolaus could have met Socrates' objection that a *harmonia* is a *harmonia* and either you have it or you don't, that something cannot be more or less fully harmonized and therefore cannot be more or less fully a soul. A person is alive (has a soul) when the body's constituents are mixed with each other “rightly and in due measure.” This covers the

ideal case where someone is perfectly healthy and also the case where a person is ill. There is an ideal, perfect condition where we enjoy perfect health, but when we are ill our constituents are still mixed rightly enough and in due enough measure – which is what Alcmaeon’s theory of health, taken up by Simmias, requires.

In B6 Philolaus makes important moves towards distinguishing two levels of reality, and understanding one in terms of the other. Witness the assertion (B6.2) that the “‘being’ of things... admits knowledge that is divine and not human.” Humans can know some things (B6.3) but not this. This may be one reason why Philolaus says so little about what he means by “being.” But for our purposes it is enough that he tells us that the “being” of things is eternal (B6.2). The ratios that define a perfect tuning in a lyre and those that define a perfectly orderly arrangement of hot and cold, and moist and dry, in a living body are eternal. They are permanent standards which lyres and living things must meet in order to be perfectly tuned lyres or fully functioning living things. In this sense, the soul, as the “being” of living things, is eternal – not their individual souls, but the ideal condition of their souls in which they are optimally alive.

I believe that these considerations support the claim that B13 is compatible with the interpretation I have proposed, on which soul is the *harmonia* whose presence in the constituents of a living thing makes that thing alive, in the sense that its perfect presence makes the thing perfectly alive, living perfectly, and whose near-enough perfect presence makes it alive still, albeit not perfectly so.

Philolaus B14

Μαρτυρέονται δὲ καὶ οἱ παλαιοὶ θεολόγοι τε καὶ μάντιες, ὥς διὰ τινὰς τιμωρίας ἡ ψυχὴ τῷ σώματι συνέζευκται καὶ καθάπερ ἐν σάματι τοῦτω τέθεται.

The ancient theologians and seers testify that the soul is yoked together with the body on account of certain punishments, and is buried in it as in a tomb.

This fragment has been taken as attributing to Philolaus the doctrine that the body is the tomb of the soul, which seems to be incompatible with his belief that the soul is as mortal as the tuning of a lyre. This is one reason for holding the fragment to be spurious.¹² But even if this is a genuine fragment, does it prove that he held the doctrine in question? Not at all: the fragment merely quotes him as saying that “ancient theologians and seers” held that doctrine – the kind of

12 B14 has widely been considered spurious. Huffman (1994, 404–406) shares this view although he defuses some objections that have been raised against its genuineness. Neither of his reasons for rejecting it seems convincing. The first is met by recognizing that the *σῶμα – σῆμα* doctrine is originally not Pythagorean but Orphic, so that the ancient theologians and seers referred to are Orphic priests, and the second objection vanishes when we recognize that the author of B14 is simply reporting the doctrine, not endorsing it. I follow A. Bernabé (Bernabé 2013) and (Bernabé 2011) in accepting B14 as genuine.

thing a philosopher might say in a disparaging way before going on to present his own quite different view. In fact Clement, our source of the fragment, quotes it in connection with his discussion of Plato's reference at *Cratylus* 400c to the σῶμα – σῆμα doctrine, which Clement states (*Strom.* 3.3.16) to be an Orphic belief. This reinforces the suggestion that the "ancient theologians" Philolaus refers to are the Orphics, from whom as an up-to-date philosopher and scientist he surely distanced himself. I conclude that B14 reveals nothing about Philolaus's own view of the nature of the soul and therefore that this fragment is no obstacle to the account of soul advanced in this paper.

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Is Parmenides a Pythagorean? Plato on *Theoria* as a Vision of the Soul

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In the present article, I will endeavour to bring together several Platonic passages that allude to the pre-incarnate state of the soul with a particular emphasis on the vision of truth encountered by the soul before entering the body. This particular notion of *theoria* is prima facie a Platonic invention. Nevertheless, what is worth exploring in Plato is the extensive use of stylistic, argumentative and imagistic patterns, which are employed also in Parmenides' poem within the context of what may be considered a Pythagorean eschatology, Pythagoras being the first archaic thinker to whom the doctrine of the transmigration of the soul was ascribed.

At first glance, Parmenides seems far from being considered a Pythagorean by Plato: in the *Sophist* (242d), where Plato constructs a proto-doxographical account of the ontological question, Parmenides is presented as Xenophanes' successor par excellence in the foundation of the so-called Eleatic tribe (*ethnos*), promulgating monism against the epic chimeras of the pluralists. Hence, we may surmise that Xenophanes' well-known ironic criticism of the Pythagorean doctrine of metempsychosis (21 B 7 DK) could have influenced Plato's view of his alleged student Parmenides.

On the other hand, Heraclitus and Empedocles, who come after Parmenides in the same account in the *Sophist*, are portrayed by Plato as the Ionian and the Sicilian Muses respectively,¹ who sing in different modes the "symphony" of the one and the many. Although it is clear from the direct quotations that the point of Plato's reference to the Sicilian Muses is Empedocles in particular (just as Heraclitus is indicated when Plato refers to the Ionian Muses), the toponym "Sicilian" itself, along with the notion of musical harmony in the same context, echoes a Pythagorean tune.

Nonetheless, as Taylor suggests in his introduction to the *Timaeus*, which is considered by a large number of scholars to be the Pythagorean dialogue par excellence, "historically it was the Empedoclean influence which led to the development of doctrines like that of the soul as the 'attunement' (*harmonia*) of the

1 On the relation between Parmenides and Empedocles concerning the hymns on gods see Bernabé 2005, pers II, farc. 2, 245, VI. Hymni et Epigrammata, 638T (306K).

body, which are quite inconsistent with the fundamental presuppositions of the Pythagorean way of life.”²

Indeed, the principal notion of the *sumplokē eidon*, which Plato introduces in the *Sophist*, has biological undertones, which may be traced back to Empedocles’ zoogony. Moreover, the same notion gives a new meaning and turn to the epic episodes in the pluralistic accounts, which are described ironically by Plato as wars and marriages between beings³ (akin to the notion of *sumplokē*).⁴ To be sure, the ambiguity of the term *sumplokē*, which may indicate at the same time “conflict” and “coalescence,” synthesizes in Plato’s mind the Empedoclean and the Heraclitean view: according to Plato, the latter consists in the alternation of the one and the many, the former in their identity, indicating the unity of opposites, or in Heraclitean terms the *palintropos*⁵ or “hidden harmony” (22 B 51, 54 DK).

Then again, the ontological priority of the one against the many, which Plato ascribes to the first Eleatics, as well as the musical symphony produced by their synthetic attempt, echoes to a certain extent Pythagorean themes, Pythagoreans being the first to regard number as the principle of the universe, a principle that is also reflected in the Pythagorean “music of the spheres.”⁶ On the other hand, the notions of musical harmony and the unity of opposites that Plato ascribes to

2 Taylor 18. In his introduction to the *Timaeus* Taylor states that “... Empedocles was the real founder of the Sicilian School of medicine and Philolaus was, as we know about him from the statements in the *Iatrica* of the Peripatetic Menon, was a member of this school. The special aim of the school as Burnet has shown was to work the Empedoclean theory of the four roots, or elementary bodies into the Pythagorean system (EGPh 292–296). This is exactly what we shall find Timaeus trying to do in his famous geometrical construction of body (53c–55c)... In fact, we might say that the formula for the physics and physiology of the dialogue is that it is an attempt to graft Empedoclean biology on the stock of Pythagorean mathematics...(We shall see that this incongruity of the Empedoclean with the Pythagorean elements in his beliefs leads Timaeus himself into a variety of real inconsistencies which culminate in an absolutely unqualified contradiction between a medical or physiological determinism and a religious and ethical doctrine of human freedom agreeing precisely with the undoubtedly Pythagorean myth of Er in the *Republic*.”)

3 See *Sophist* 242c8–d1.

4 The Eleatic Visitor presents the pluralists as naive mythologists – epic poets who could only impress children –, whereas he considers the Eleatic “*ethnos*” to which he belongs by origin (*to par’hemin ethnos*) and more in particular Xenophanes, his alleged founder, as a reformer of the epic mythology leading to the monistic view according to which “all is one.” Although Plato subscribes to monism against pluralism, he challenges “father Parmenides” by constructing a new philosophical generation of thinkers, a synthesis of both genealogies, led by Heraclitus and Empedocles, a new *sumplokē eidon* so to say.

5 Note the *jeu de mots* between the attested term “*palintropos*” in 22 B 51 DK and the equivalent “*palintonos*” echoed by Plato in the *Sophist* when he refers to Heraclitus as the “*suntonos*” Muse, resounding the above-mentioned “sum-plekein” and “sum-pheresthai.” On the notion of Heraclitean harmony in Plato cf. also the *Symposium* 187a.

6 See Cornford 1935, 4: “As a religious philosophy, Pythagoreanism unquestionably attached central importance to the idea of unity, in particular the unity of all life, divine, human and animal, implied in the scheme of transmigration... Nor is there any ground for rejecting the testimony that the principle of Unity, in some form, was regarded as divine (Hippolytus, *Ref.* 1.2). We should expect moreover something analogous to the God of Xenophanes, the

Heraclitus and Empedocles respectively are key notions in their thinking, without any necessary reference to Pythagoras.

Yet, Heraclitus was the first to criticize Pythagoras as a “polymath” (22 B 129 DK),⁷ the notion of *polymathie* itself reflecting the tension between the one and the many: although Pythagoras is said to have practiced *historie* most of all men – a requirement for the philosopher according to Heraclitus (22 B 35 DK)⁸ – the latter accuses the former of putting together an arbitrary collection of written works (22 B 199 DK), in which consisted his alleged “wisdom” (*heautou sophie*), the pronoun *heautou* being a clear reminder of the pejorative sense in which Heraclitus describes the “many” (*polloi*) in the proemium of his account (*Logos*): the many are unable to listen and attune themselves to the unifying principle of *Logos*, which is common to all things (22 B 1 DK), as if each one of them possessed a wisdom of one’s own – *idian echontes phronesin* (22 B 2 DK).

Similarly to Heraclitus, who condemns Pythagoras’ alleged wisdom as *kakotechnie* (bad skilfulness) and plagiarism, Xenophanes considers the myths about gods told by the epic poets to be *plasmata ton proteron*, that is to say useless “fictions of the past poets” (21 B 1, v. 22 DK). Heraclitus did not make the accusation of polymathy only against Pythagoras, but against all allegedly “wise” men of Greece including Xenophanes, who was the first to criticize Pythagoras (21 B 7) and the epic poets on similar grounds to those of Heraclitus:⁹ Heraclitus bans Homer, along with Archilochus, from all poetic competitions (22 B 42 DK)¹⁰ and accuses Hesiod among the other allegedly wise men of being a polymath who cannot make good sense of his *polymathie* because of his lack of *nous* (22 B 40

One Being of Parmenides, the Sphere of Empedocles. A system of the Italian type, seeking the reality of things in form rather than matter...”

- 7 *Pythagores Mnesarchou historien eskesen anthropon malista panton; kai eklexamenos tautas tas sungraphas epoiesato heautou sophien, polumathien, kakotechnien* (“Pythagoras, son of Mnesarchus pursued inquiry further than all other men and, choosing what he liked from these compositions, he made a wisdom of his own: much learning, artful knavery”) Translated by Charles Kahn.
- 8 *Chre gar eu mala pollon historas philosophous andras einai kath’ Herakleiton*. I owe the following comment to Andrei Lebedev who considers this fragment authentic, because it is to be found independently both in and in Clemens (*Strom.* 5.140.6) despite the fact that in the latter source it is not ascribed to Heraclitus in particular. Yet the wording is identical in both fragments and thus there is no doubt that Clemens refers to the above-mentioned Heraclitean fragment. As for the term “philosopher” itself in this context, Lebedev suggests an ingenious interpretation related to the Heraclitean Theology, where the word “*sophon*” plays a central role substituting for the term “*theos*.” I am very thankful to him for confiding this interpretation in me at a private discussion. We are looking forward to his forthcoming book on Heraclitus.
- 9 Xenophanes’ critique against the plausibility of the Pythagorean theory of metempsychosis fits perfectly his epistemological views. Despite his so-called epistemological optimism (21 B 18 DK) which is a unique phenomenon in the archaic poetry, Xenophanes has strongly challenged human capacity on definitive knowledge belonging only to God, who unlike the gods of the epic poetry is not anthropomorphic in any respect, but purely “noetic.”
- 10 *Homerom ephasken axion ek ton agonon ekballesthai kai rhapizesthai kai Archilochon homoios*.

DK),¹¹ the unifying principle of perception according to both Heraclitus and Xenophanes.

On similar grounds, Xenophanes addresses his first ironic comment against the epistemological foundation of Pythagoras' theory of metempsychosis (21 B 7 DK): he turns it into an object of mockery because of the paradoxes which arise if one tries to apply it concretely. In other words, both Xenophanes and Heraclitus strongly challenged Pythagoras' epistemology by addressing to him the same type of criticism that they addressed to the epic poets. By setting forth a philosophical theology, Xenophanes opposes the naive epic mythology, which Heraclitus also condemns as nonsensical polymathy in the person of Pythagoras.

In this respect, Plato in the *Sophist* seems to follow Xenophanes and Heraclitus closely, when he condemns the pluralists as naive mythologists who cannot make sense of the "whole as one," the latter view pertaining to the Eleatic school of thought beginning with Xenophanes (*Sophist* 242b). It is also worth considering that the abovementioned monistic formula, which Plato ascribes to Xenophanes, is only to be found verbatim in Heraclitus (22 B 50 DK).¹² Put differently, Plato in the *Sophist* adopts the harsh criticism that Xenophanes and Heraclitus made against Homer and Hesiod for their unmerited predominance in the Hellenic *paideia*.¹³

On the other hand, in the *Republic* (606e2–3), where Plato repeats almost word for word (τὴν Ἑλλάδα πεπαίδευκεν οὗτος ὁ ποιητής) the Xenophanean criticism of Homer (21 B 10 DK: ἐξ ἀρχῆς καθ' Ὅμηρον ἐπεὶ μεμαθήκασι πάντες), Pythagoras is presented as an exemplary teacher of a *bios* (600a–b), and we may note also that this is the only explicit reference to Pythagoras in the Platonic corpus. What is more, Plato in the *Sophist* makes an implicit comparison between Parmenidean monism and Pythagoreanism: in his attempt to put to the test Parmenides' fundamental thesis, according to which non-being cannot be spoken of, Plato portrays non-being as an *arrheton*. This notion of *arrheton* goes back to the *aporrheta*, that is to say the doctrines that the Pythagoreans took a vow to keep secret (*Phaedo*, 62b).

The reason why Plato may here be alluding to Pythagorean doctrines, rather than Bacchic and Orphic mysteries, which are also described as *arrheta* in the dramatic literature,¹⁴ is the Pythagorean context within which he establishes this rapprochement: non-being is characterized as a sort of irrational number between

11 *Polumathie noon echein ou didaskei*: "Nous" as the unifying principle of knowledge goes back to Xenophanes' theology, who defines God as pure Intellect (*Nous*), as opposed to the epic poets who ascribe gods the most "naive" anthropomorphic features, making immortals seem like caricatures of mortal men (21 B DK).

12 *Ouk emou alla tou logou akousantas homologein sophon estin hen panta einai*: Chrysakopoulou 2011.

13 21 B 10,11,12 DK; 22 B 57 DK: *didaskalos de pleiston Hesiodos; touton pistantai pleista eidenai, hostis hemeren kai euphronen ouk eginosken; esti gar hen*.

14 Cf. Euripides, *Bacchae* 471: Pentheus: Of what nature be these rites? Dionysus: They are unspeakable (*arrheta*), not to be known by those uninitiated into the Bacchic rites. Also in *Rhesus* 943, where the Muse claims that "the torches of the unspeakable mysteries (*musteria aporrheta*) did Orpheus teach..."

the one and the many, irrational numbers being another fundamental Pythagorean taboo:¹⁵ “Do you concede then that it is impossible to utter correctly, or to say, or to conceive of not-being in itself, or that it is inconceivable, unspeakable (*arrhetos*), inexpressible, and irrational (*alogon*) (*Sophist* 238c)?”¹⁶ (συννοεῖς οὖν ὥς οὔτε φθέγγασθαι δυνατὸν ὀρθῶς οὔτ’εἰπεῖν οὔτε διανοηθῆναι τὸ μὴ ὂν αὐτὸ καθ’αυτό, ἀλλ’ἔστιν ἀδιανόητόν τε καὶ ἄρρητον καὶ ἀφθελκτον καὶ ἄλογον;). In other words, Plato challenges the very core of the notion of non-being in Parmenides’ poem, by giving it the status of a Pythagorean taboo, which he attempts to abolish, in order to prove to “father” Parmenides that the “unspeakable” non-being can indeed be spoken of.

In conclusion, on the one hand Plato in the *Sophist* repeats Xenophanes’ and Heraclitus’ criticism of the epic poets by explicitly identifying the latter with the pluralists, whom he dismisses altogether as naïve storytellers. On the other hand, he does not follow Heraclitus, who extends his criticism of the epic poets also to Pythagoras and Xenophanes. On the contrary, Plato reckons Xenophanes to be the father of Parmenides – the monist par excellence – and thus as the head of the Eleatic School of thought, to which Plato subscribes himself as the Eleatic Stranger. Moreover, he implicitly compares Parmenides to the Pythagoreans by creating a rapprochement between the Parmenidean doctrine and the Pythagorean taboos. Far from committing a parricide, as some modern scholars maintain, Plato divulges the secrecy of Parmenidean non-being by giving it the status of a Pythagorean taboo.

Parmenides’ Pythagorean identity, as implied by Plato, is also reflected in later tradition: Diogenes Laertius presents Parmenides as an adept of a poor Pythagorean called Ameinias, in whose honor Parmenides built a majestic shrine after his death (*Lives* 9.21–23). As if in response to Plato, Diogenes clearly states that, although Parmenides attended Xenophanes’ lessons, it was Ameinias the Pythagorean, and not Xenophanes, who converted Parmenides to *hesuchia* (silence), a term which may be indicative of a Pythagorean kind of *bios* (way of life), inasmuch as it is related to the vow of secrecy regarding the Pythagorean doctrines.

Furthermore, it is worth considering that Diogenes makes Empedocles a Pythagorean (*Lives* 8.54), to the extent that the latter refers in his poem to an anonymous wise man (*sophos*), who possesses knowledge of ten or twenty lives (31 B 129 DK: ἦν δέ τις ἐν κείνοισιν ἀνὴρ περιώσια εἰδώς, ὃς δὴ μήκιστον προπιδῶν ἐκτήσατο πλοῦτον). This type of knowledge is made explicit through the expression *ploutos* (profusion) *prapidon* (v. 2 and 4). *Prapidai* (diaphragm) denotes the seat of perception since Homer, but this very expression is also to be found

15 Clement of Alexandria (*Strom.* 5.9.57,3) records the story of Hippasus of Metapontum, who was said to have been assassinated by members of the Pythagoreans, because he divulged the discovery of irrational numbers.

16 “In terms of Greek drama, Plato in the *Sophist* abolishes the distinction between “*didakta*” and “*arrheta*” Teiresias establishes in Sophocles’ *Oedipus rex*, by proving that the non-being” to which he gives the statue of the “*arrheton*” can be spoken of (*didakton*) (*Oedipus rex* 301).

in fragment 31 B 132 DK of Empedocles¹⁷ in connection with the phrase *peritheon doxa* (opinion on gods).¹⁸ In other words, this type of knowledge has a theological content. What is more, at the beginning of fragment 910 Kannicht, Euripides employs exactly the same structure as Empedocles in the fragment just cited (*olbios hostis*),¹⁹ except in using *histories mathesis*²⁰ instead of the Empedoclean expression *prapidon ploutos*, which may be considered equivalent to the former.

Paradoxically enough, the combination of all three abovementioned fragments (the two from Empedocles and the one from Euripides) to a large extent echoes the Heraclitean fragment against Pythagoras (22 B 129 DK).²¹ To be sure, Empedocles' and Euripides' fragments neither convey the ironic attitude Heraclitus adopts against Pythagoras, nor allude to the latter in particular. Yet they grant a special status of divine blessedness to the kind of wisdom they describe, independently of whether they are referring to a particular person in possession of it or not. Therefore, Pythagoras should not be considered the only candidate for the embodiment of this blissful state of wisdom. Nevertheless, what may be considered striking is that this Heraclitean fragment seems to be the oldest prototype for all three abovementioned fragments, comprising both the ideas and the wording present in them, with the exception of the term *olbios* which, however, is equally related to *historie* and to *prapidai* in the two fragments that begin with the same formulaic expression.²² If this is the case, Heraclitus' ironic attitude to Pythagoras in fragment 22 B 129 DK seems to be a reaction to the presentation of the latter as the *sophos* par excellence, practising *historie* "most of all men," especially if combined with 22 B 35 DK, where *historie* is considered to be the requirement par excellence for the philosopher according to Heraclitus, not to mention that, according to Lebedev, the term "philosopher" has a theological meaning.²³

In its original sense, the word *historie* signifies *strictu sensu* eye-witnessing, and therefore in a wider sense the term is applicable to evidence-based investigation using empirical data. Yet, the interchangeability of the expression *prapidon ploutos* in fragment 31 B 132 by Empedocles and of *histories mathesis* in fragment 910 Kannicht by Euripides could be a further indication that *historie* does not exclude theological knowledge in which a certain eschatology may be embedded. This is also the case in the abovementioned Heraclitean fragment (22 B 25 DK), where Heraclitus connects the term "philosopher," which has a theological connotation in the Heraclitean corpus according to Lebedev,²⁴ with the term *histor*. Indeed, if combined with the two abovementioned Empedoclean fragments, the term *histo-*

17 *Olbios hos theion prapidon ektesato plouton, deilos d'oi skotoessa theon peri doxa memelen.*

18 Cf. the Xenophanean incitation *promutheien theon... agathon* (21 B 1, v. 24 DK).

19 Cf. fr. 830, c4 / e5 / f4 Bernabé.

20 Burkhard 1967.

21 See above, note 7.

22 Cf. the Orphic golden plates in Tzifopoulos 2011.

23 See above note 8.

24 See above note 5.

rie as used by Heraclitus and more particularly by Euripides involves the appropriate (so to speak) opinion on gods (*peri theon doxa*).

In Empedocles' case, this theological view is somehow connected to the knowledge of a large number of human lives, which made Pythagoras the most plausible candidate to be the *sophos* described in the Empedoclean verses, to the extent that such knowledge may be a reference to the doctrine of the transmigration of the soul, which was first ascribed to him. Last but not least, it is also worth taking into account for our purpose that Diogenes Laertius, who identifies Pythagoras as possibly the point of Empedocles' reference, considers Parmenides to be an alternative to Pythagoras in the same verses (Diogenes Laertius, *Lives* 8.54: οἱ δὲ τοῦτο εἰς Παρμενίδην αὐτὸν λέγειν ἀναφέροντα).²⁵ Independently of the issue of Diogenes' reliability, what matters for our purposes is that Parmenides and Pythagoras are presented as equally possible candidates for this knowledge of previous incarnations.

In the Platonic passages I shall present below, Plato clearly draws from the vocabulary, images, and arguments used in the Parmenidean poem, in order to describe his teaching as a process of initiation leading to the recollection of the vision of truth encountered by the soul in its pre-incarnate state. This philosophical initiation echoes Pythagorean concerns about the fate of the soul, to the extent that the paternity of the doctrine of metempsychosis, to which Plato makes allusions, was first attributed to Pythagoras. What is more, *theoria* is presented as the ultimate stage of this philosophical initiation, when the bodiless and pure soul is magnetized by the divine vision of truth, before entering the body and becoming amnesiac.

Although Burkert clearly states that Pythagoreanism as such did not involve mystery rites (*teletai*),²⁶ that is to say religious initiation, Pythagoras' prominent interest in all sorts of rituals as a witness practising *historie* can be compared to Plato's general attitude towards mystery cults, which he takes as a model for his teaching without subscribing to a particular cult. Put differently, what may be considered as an imitation of Pythagoras is Plato's acute interest in such practices as a *theoros*, especially since the latter describes his teaching as a kind of philosophical *theoria*, a term which is equivalent to *historie* according to our previous analysis.

Andrea Wilson Nightingale in her seminal article on the notion of philosophical *theoria*²⁷ emphasizes the element of the sight of divinity within the Platonic context: "wandering" related to pilgrimage and to witnessing foreign rituals in the religious sense of the term *theoria* paves the way for its new philosophical sense introduced by Plato. Closely bound to the divine vision of truth encountered by the soul in its pre-incarnate state, the notion of philosophical *theoria* is a recurrent theme in Plato, found in the *Symposium*, the *Phaedrus*, and the end of

25 Cf. Empedocles (31 b 132 DK): *Olbios hos...* with fr. 910 Kannicht by Euripides: *Olbios hos tes historias eschen mathesin...*

26 See Burkert 1985, 302.

27 See Nightingale 2008.

the *Republic*.²⁸ In those dialogues Plato clearly invests the underlying doctrine of the transmigration of the soul with Parmenidean imagery and argumentation. Such an operation could be indicative of an Eleatization of Pythagoreanism, reflecting to a certain extent a possible merging of the two primary philosophical movements born in Italian soil in the archaic era. Undoubtedly Plato was strongly influenced by the Eleatics in his ontological concerns. While the *Sophist* and the *Parmenides* are a response to the Eleatic master of ontological monism, the doctrine of the immortality of the soul, which was first ascribed to the Pythagoreans, is also closely bound to Platonic epistemology.²⁹

Parmenidean imagery in a Pythagorean context is to be found in the *Phaedrus* (244a–257b), where Stesichorus' recantation explains Eros as a sort of madness (*mania*) of divine inspiration. Although the manic state of the soul is traditionally associated with Dionysian possession, Plato attributes it to Eros' divine influence,³⁰ not to mention that in the *Symposium*, the Dionysian dialogue par excellence, Plato presents Eros as the most venerable god according to Parmenides. The Orphic epic tradition on the other hand, which is allegedly adopted by the Pythagoreans, identifies Dionysus with Eros. Parmenides' praise of Eros in the *Symposium* (178a) celebrates the god as the first and the oldest of all gods (thus abolishing the idea of a Hesiodic genealogy,³¹ which is incompatible with the Parmenidean precept of the exemption of being from generation and corruption, going back to the Xenophanean theology). Eros is thus presented as the un-generated God who generates everything (178b = 28 B 13 DK): *Parmenides de ten genesin legein protiston de Erotā theon metisato panton*;³² here the term *metisato* shows the close connection between Eros and Metis, the goddess of wisdom,³³ who is omnipresent in the Orphic epic tradition and is associated with Pythagoras' teaching.

The relationship between Eros and wisdom is also emphasized in the *Phaedrus*. As stated above, this kind of wisdom is related to the vision of divine beauty, encountered by the soul during the mysteries it attends in its pre-incarnate state. What is striking within this mystery context in the *Phaedrus* is how Plato passes from poetic praise of the madness inspired by Eros to a rigid argumentation to prove Eros' divine origin. It is precisely this argumentation within the context of the flight of the soul above the heavens that is highly reminiscent of Parmenides' account of being: Parmenides describes his voyage to the halls of the goddess as a *pompe*³⁴ in a chariot led by the Sun Maidens. Similarly to the latter in his poem, where the vivid imagery of his journey away from the world is followed by the

28 See Chrysakopoulou 2010.

29 See Palmer 1999.

30 On the identification between Eros with Dionysos see fr 540 F Bernabé (237 K.) Macrobi. *Saturnalia* 1.18.12.

31 See Strauss / Bernardete 2001.

32 Bernabé 2005, Fasc. 1, 99, 100 (29K), v. 425, *presbutaton te kai autotele polumetin Erotā*, 242, v. 9 (*kai metis protos genetor kai eros poluterpes*), 208, 245.

33 Metis is also Eros' grandmother in the *Symposium* through his father Poros.

34 On the notion of *pompe* see Kavoulaki 2011.

goddess's rational account of the divine characteristics of being (*semata*), Plato in the *Phaedrus* furnishes arguments of Eleatic inspiration on the question of soul's immortality, right after describing the flight of the soul above the heavens in its pre-incarnate state.³⁵

What is more, Plato's proofs of the immortality of the soul echo to a large extent the *semata* (tokens), which indicate the path to being, revealed by the Parmenidean goddess to the youth (*kouros*),³⁶ the initiate in mystery language,³⁷ who surpasses mortal barriers. Moved by his *thumos*, a Homeric term describing the seat of perception, equivalent to the notion of the self-moving soul in the *Phaedrus*, Parmenides is "sent" (*pempein*) on a journey above the world. Plato makes use of the same chariot imagery when presenting the soul's divine component: the winged charioteer, the "helmsman of the soul," as he characterizes divine intelligence, transports the soul beyond the heavens, where it attends the mysteries of true being. Likewise, the *kouros* is led to the halls of a goddess, who resides beyond mortal reach and who in a mystery context reveals to him the truth about being.

There have been several attempts to identify the anonymous goddess with traditional Greek deities and more particularly with Persephone, the goddess of the Underworld, who welcomes the souls of the dead, hence presenting Parmenides' journey as a *katabasis* (a descent to the underworld).³⁸ Such a reading would also be compatible with the myth of Er at the end of the *Republic*, where the journey of the souls is presented in a similar fashion except for the chariot imagery. On the other hand, a number of scholars consider Parmenides' journey to be an ascension to the heavens rather than a descent into Hades,³⁹ an interpretation which would echo the imagery in the *Phaedrus*.⁴⁰

The confusion between the Heavens and the Underworld seems to be deliberate in Parmenides: he rides the chariot led by the Sun Maidens to the halls of

35 "And we, on our part, will prove... that the madness of love is the greatest of heaven's blessings... But first of all, let us view the affections and actions of the soul divine and human.... The beginning of our proof is as follows: the soul through all her being is immortal, for that which is ever in motion is immortal; but that which moves another and is moved by another, in ceasing to move ceases also to live. Only the self-moving, never leaving self, never ceases to move, and is the fountain and beginning of motion to all that moves besides..."

36 Plato's intellectual debt to Parmenides is recognized not only in the homonymous dialogue, but more in particular in the *Sophist*, where the Eleatic Stranger presents himself as a descendant of the Eleatic tribe (*ethnos*) beginning with Xenophanes and followed by father Parmenides (242d).

37 See Burkert 1969.

38 Cf. note 28.

39 See Fraenkel 1975 and 1960, and Frère 1985.

40 See Planinc 2003, 1–2. Similarly to our interpretation of the Parmenides journey, the writer of this book presents the *Republic* as a "*katabasis*" and the *Phaedrus* as an ascension: "From its first word – *kateben* – 'I went down', Plato's *Republic* remains unfamiliar to us... It cannot be an insignificant literary ornament that Plato may be alluding to the scene in the *Odyssey* in which Odysseus, finally reunited with Penelope, tells her of his long travels and the hardships yet to come, as he heard of them from Teiresias (23.251–253). Cf. also Planinc 2003, 85, 64–110 ("*Ascent*, the *Phaedrus*").

the goddess, who resides beyond the Gates of Day and night, as known from Hesiod's *Theogony*. Yet, the local indications given by Parmenides turn the Hesiodic topography upside down, in an attempt to refute it.⁴¹ In this respect, Plato seems to echo Parmenides in the myth of Er in the *Republic*, where the souls in Hades envision the heavens just before choosing their next incarnation. What is more, the description of the heavens in the myth of Er pertains to the mechanism of the Universe as presented by Parmenides in the cosmological part of his poem.

In any case, what matters in our analysis is that, similarly to Parmenides, the souls in the *Phaedrus* undertake their journey in winged chariots to a *locus incertus*, which resides beyond mortal reach, where they are initiated to the truth of being. Moreover, Plato follows the pattern of the Parmenidean account of being, in order to present his own account of the immortality of the soul. It is striking that he ascribes to the soul most of the attributes that the Parmenidean goddess confers on being in a similar argumentative fashion.⁴² In other words, Plato makes use of the Parmenidean formulation concerning being in order to prove the soul unbegotten and indestructible and thus exempt from generation and corruption. Similarly to Parmenides, Plato presents the strict rational arguments on the immortality of the soul as a revelation to the initiate. This revelation does not entail a vision, but a teaching of a logos, which can only be perceived by the divine Intellect (*Nous*), as opposed to the human senses.⁴³ Likewise in the *Phaedrus*, the so-called vision that the divine intelligence beholds in its pre-incarnate state is not to be grasped by sight, but by logos. Accompanied by all other immortals, the divine intelligence envisions the heaven which is above heavens in the following manner:

The divine intelligence... beholds... knowledge absolute, not in the form of generation or of relation, which men call Being,⁴⁴ but knowledge absolute in Being absolute.

Plato's preoccupation with the doctrine of the immortality of the soul and its divine origin seems to be closely entangled with the narrative of the incarnation of the soul, to the extent that the soul and more particularly its divine part, the *Nous*, envisions absolute truth before entering the body. In the *Phaedrus*, the *Symposium*, and the *Republic*, Plato explains the knowledge of forms in terms of recollection of

41 Chrysakopoulou 2015.

42 "Now, the beginning is unbegotten, for that which is begotten has a beginning; but the beginning is begotten of nothing, for if it were begotten of something, then the begotten would not come from a beginning. But if unbegotten, it must also be indestructible; for if beginning were destroyed, there could be no beginning out of anything, nor anything out of a beginning..."

Similarly, the Parmenidean goddess teaches Parmenides that "One path only is left for us to speak of, namely, that It is. In it are very many tokens that what is, is unbegotten and indestructible... If it came into being, it is not; nor is it if it is going to be in the future. Thus is becoming extinguished and passing away" (28 B 8, 18–20 DK).

43 28 B 2,1–5; 28 B 3; 28 B 7, 2–6 DK.

44 28 B 8 DK.

the beatific vision encountered by the soul before incarnation. On the other hand, this vision is explicitly described in Eleatic terms, if we consider the Parmenidean poem to be the first example of a rational account of truth presented as a religious revelation. Similarly to Parmenides, Plato presents the vision of truth as the last stage of the student's initiation by his master, who is invested with religious attributes. Likewise, the vision of truth marks the end of Diotima's teaching in the *Symposium*: once more, this vision of truth, described by Diotima to Socrates, is very similar in inspiration to the account of truth that the Parmenidean goddess reveals to the youth:⁴⁵

He who has been instructed thus far in the things of love... when he comes toward the end will suddenly perceive a nature of wondrous beauty... beauty absolute, separate, simple, and everlasting... This, my dear Socrates said the Visitor from Mantinea, is that life above all others which man should live, in the contemplation of beauty absolute... Remember how... beholding beauty with the eye of the mind, he will be enabled to bring forth, not images of beauty, but realities... and bringing forth and nourishing true virtue to become the friend of God and be immortal... Would that be an ignoble life?

It is also noteworthy that Diotima presents her teaching as a *mathema* leading to a *bios*, two terms closely related to the Pythagorean tradition.⁴⁶ Yet what bears the mark of Diotima's teaching in the *Symposium* is the relationship that she establishes between eros and procreation.⁴⁷ It is precisely this relationship that could have served as a model for Socratic maieutics in the *Theaetetus*. In her last words in the *Symposium*, Diotima underlines that this kind of *bios* that she proposes does not lead to bringing forth images of beauty, but to realities. Similarly, Socrates in the *Theaetetus* describes his teaching as an initiation to the mystery of the birth of true knowledge,⁴⁸ or to the abortion of false perceptions (161d). This initiation (*muesis*) echoes *maieusis* to the extent that it is parallel to the initiation led by the female seer, who is introduced by Socrates in the *Symposium* (201d) as his wise and skillful teacher in matters of Eros and procreation in the philosophical sense of the word.⁴⁹

45 Waithe 1987, 85.

46 Proclus makes of Diotima a Pythagorean (*Comment to the Republic*, VIII).

47 On the question of procreation as a model for Eros within the frame of Dionysian religion see Acker 2008.

48 See Leshner 1969, 73: "Maieutics in its negative sense leads to the abortion of what is not sustainable by reason." See also Sedley 2004, 34: "Refutation: The requirement that a midwife should be able to recognize a false or unviable offspring (105b9–c3) makes Socrates an expert at exposing falsehood in argument, thus (210b11–c5) disabusing people of the belief that they know what in fact they do not know. This in fact is the most important of his maieutic skills (105b9–c3)."

49 See Halperin 1990.

Similarly to Diotima in the *Symposium*, in the *Theaetetus* Socrates presents his philosophical teaching to Theaetetus as an initiation to mysteries (*mello soi ta musteria legein*, 156a) and promises to him that they will together extract the hidden truths: *apokekrummenen aletheian* (155e, 156c). Another striking analogy between Theaetetus in the eponymous dialogue and young Socrates in the *Symposium* is related to their initial difficulty in following their master's teaching. Socrates' lack of understanding is expressed by marvelling at Diotima's wisdom (*ethaumazon te sophie*, 206c) in a similar way to how Theaetetus exclaims *thaumazo* at Socrates' *elenchos*. Yet, Socrates encourages him not to give up his search for truth, by revealing to him that this state of perplexity (*thauma*) is the beginning of philosophizing. He proceeds by giving Theaetetus a mythological explanation of the notion of wonder (*thauma*) according to Hesiod: Thaumais is the father of Iris, who was the first messenger of the Olympian gods in the *Iliad*, replaced by Hermes in the *Odyssey*.

This is another important clue to the parallelism between Socrates' and Diotima's teaching: at the beginning of her account, Diotima employs the terms *hermeneuon* (interpreting) and *diaporthmeuon* (transporting), in order to describe Eros as a daimon, between mortals and immortals. Both terms are closely related to Hermes (*herme-neuon*), the messenger of the Olympian gods par excellence and Iris's male equivalent. Nevertheless, what is significant for our enquiry is that the two participles ascribed to Eros allude to Hermes the psycho-pomp, transporting by water (*diaporthmeuon*) the souls of the dead across the river Styx to Hades. Diotima, the priestess of Eros, and Socrates in his role as philosophers' midwife are also presented as intermediary figures, describing themselves as psycho-pomps, transporting the souls of their students-initiates from one realm to the other. This is reminiscent of the *pompe*, the escorting of Parmenides to the halls of the goddess beyond mortal reach (*ektos patou*), who reassures him that he should not be afraid of a bad fate, *moira kake* being the equivalent of physical death in the epic tradition.⁵⁰

If we combine the *Phaedrus*, the *Symposium*, and the *Theaetetus* we can come up with a general idea of what is involved in Socratic teaching as initiation, driven by eros for wisdom. The task of the philosophers' midwife is to reawaken the beatific vision of true being, which the soul of the beholder witnessed in its prenatal exis-

50 It is noteworthy at this point that Parmenides in the second part of his poem ascribes to birth the adjective "*stugera*," which is directly derivative from river Styx, another element which shows the close connection between birth and death in his poem. Besides, the identity between generation and corruption is a common theme for Xenophanes, Parmenides, Heraclitus and Empedocles, the four thinkers that Plato brings together in his proto-doxography in the *Sophist*. Likewise, despite the apparent paradox, the relation Diotima establishes between the god of Eros and birth, ultimately leads to the otherworld, where the soul, the immortal principle in human nature prepares for its re-incarnation, after beholding the vision of truth.

tence.⁵¹ Triggered by eros for true wisdom and knowledge, the philosophical soul recovers from its amnesia of the vision of truth and gives birth to truth. Just as in Diotima's speech the eros for another person leads to reproduction, and reproduction to the immortality of the species, so the eros for wisdom makes the philosopher pregnant with knowledge. Bringing forth and nourishing the offspring of truth leads to immortality. In other words, procreation in Diotima's account leads to the rebirth of knowledge in the soul of the beholder. This knowledge is related to a kind of life that transgresses mortal barriers, when the soul, the principle of immortality according to Plato, is separated from the mortal body. This is the reason why the birth of knowledge in the soul is also associated with the death of the body, when the soul is transported to the other world to choose its next reincarnation. Metempsychosis is thus used as a narrative device to support the doctrine of the immortality of the soul, which accounts for *a priori* knowledge, requiring a midwife-psychopomp to bring it back to light.

At the very end of the *Republic*, the relation between the life of the soul, physical death, and rebirth through metempsychosis is again associated with the vision of invisible beauty. Plato closes his *Republic* with the myth of Er, who comes back from Hades, the realm of the invisible, where the souls linger before choosing their next incarnation. Returning back to life, he relates what he witnessed in the other world as a *histor* or *theoros*: he was told by the judges seated in between the two worlds in a *topos daimonios*⁵² that he was to be the messenger who would carry the report of the other world to men. Similarly to Hermes and Iris, Er is introduced by Socrates as the herald transporting divine wisdom to humans. As is the case in Parmenides, the *Theaetetus*, and the *Symposium*, the "initiate" is prompted to become the messenger of what is imperceptible to all other mortals in this world (*aggelos genesthai anthropon ton ekei*) (also compare with Empedocles in my article).

Thus, Er becomes the witness of the other world par excellence, namely Hades. Then again, it is in the realm of the invisible that Er is said to have witnessed "sights of unfathomable beauty" (*theas amechanous to kallos*) (615a). Once more, Plato construes the invisible realm as the stage of a beauty beyond perception. Those sights pertaining to the mechanism of the universe reflect the manner in which Parmenides presents his cosmology in the second part of his poem. Yet, what differs in the Platonic description of the universe is the introduction of the cosmic music, echoing the Pythagorean music of the spheres: the three Fates, who are responsible for the souls' incarnation, are also the singers of a cosmic symphony on the Pythagorean model. Invisible beauty is thus transmitted by celestial music, which cannot be heard by ears in this world, but only by the soul in the otherworld.

51 On pangs of childbirth, cf. *Phaedr.* 251e–252a.

52 This place is very similar in description to the premises of the Parmenidean goddess in the Proemium: note the use of the expression "*chasm' achanes*" in 28 B 1 DK. On the question of the resemblances between the Parmenidean poem and the myth of Er see Morisson 1955.

Similarly to the vision of truth which cannot be seen with the eyes, such music is not audible to the ears, but is again visible to the eyes of the soul during its pre-incarnate state. The beauty of the universe can only be “heard” by the *Nous*, which transcends all senses by comprising them. The phenomenon of *sunæsthesia*,⁵³ which Plato employs as a metaphor for the supra-sensorial, is widely cited in Greek drama, especially when referring to the art of divination. To this effect, Plato enshrouds his philosophical enterprise in the cloak of initiation, following the example of Parmenides and Empedocles, as is shown by lexicographical evidence. Yet, beauty as an attribute of the vision of truth is undoubtedly Plato’s addition. What is more, this notion of beauty is closely bound to the notion of celestial musical harmony, belonging exclusively to the Pythagoreans, not to mention that the vision of celestial music is only to be seen by the soul before its transmigration, a doctrine which was first attributed to Pythagoras. Last but not least, the soul attending the vision of truth is presented as a *theoros*, a stance which encapsulates Pythagoras’ fundamental attitude towards the world according to the tradition, which makes him the first thinker to use the term “philosopher” in its technical sense,⁵⁴ as developed later by Plato and the Platonic legacy:

And therefore it is just that the mind of the philosopher only has wings, for he is always, so far as he is able, in communion through memory with those things the communion with which causes God to be divine. Now a man who employs such memories rightly is always being initiated into perfect mysteries and he alone becomes truly perfect (Plat. *Phaedr.* 249c).

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53 *Seven against Thebes*, 25–26: ἐν ᾧσι νομῶν καὶ φρεσίν... ἀψευδεῖ τέχνῃ, “using his ears and his mind to understand with unerring skill” (Smyth’s Loeb translation), κατόπτης δ’ εἴμι ἐγὼ τῶν πραγμάτων.

54 See Riedweg 2004.

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Aristotle and the Pythagorean Myths of Metempsychosis

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Introduction

It is fair to say that, from its very beginnings, tradition has associated the theory of transmigration with the figure of Pythagoras. Casadesús (2011) has recently provided a comprehensive review and bibliography of the earlier literature on the topic. Nonetheless, on this topic “the discussion still heats up wildly,” as Zeller used to say (Zeller / Mondolfo 1938, 560), and this is true even now. A recent paper by Betegh (2014), for example, as well as several recent works by Bernabé have contributed to keeping discussion on the topic alive.

In fact, the transmigration of the soul, eternal return, and universal kinship are listed by Porphyry as the doctrines that tradition considers to be the central doctrines of the historical Pythagoras. Let us consider the passage:

Some of his [Pythagoras’] statements gained almost general notoriety: 1) that the soul is immortal, 2) that it transmigrates into other species of living beings, 3) that, periodically, what once happened, happens again, nothing is absolutely new, and 4) that all living things should be considered of the same genre. It seems that Pythagoras himself introduced these beliefs to Greece for the first time.¹

This Porphyrian summary of Pythagoras’ most famous doctrines immediately brings us to the heart of the problem. It is clear that his account contains no reference to mathematics or astronomy, nor even to cosmology or politics, despite the critical role these other doctrines have played in the definition of Pythagoreanism in other strands of the tradition, in particular those corresponding to the Aristotelian texts.

Porphyry’s claim that these doctrines originated in Pythagoreanism therefore brings up at once the issue of the historiographical categorization of the movement: that is, the great diversity of forms of knowledge and the difficulties in articulating them within a coherent philosophical-scientific system.

Although it is historically late, Porphyry’s summary is certainly an excellent gateway into the discussion. It is a fine starting point if only because the tradition traces the passage back to Aristotle’s pupil, Dicearchus.²

¹ Porph. *VP* 19.

² Burkert 1972, 122–123, despite resistance from both Rathmann 1933, 3 ff. and Wehrli, who does not admit chapter 19 of Porphyry to his volume devoted to Dicearchus (Wehrli 1944),

The first doctrine quoted by Porphyry (VP 19), that of the transmigration of the soul, is connected to a widely documented tradition about Pythagoras' theory of the afterlife: these are traditions that are inserted into the model of archaic wisdom that Betegh (2006) fittingly defined as a "journey model." The wise philosopher travels beyond the limits of time and space, even to the world beyond the grave, acquiring knowledge normally unattainable by other mortals.³

This transmigration of the soul was called metempsychosis in the Greek world. Even though the term metempsychosis first appeared only in the first century AD, with Diodorus Siculus (10.6,1), and was quickly applied to Pythagoras, its etymology points to a much older origin of the term: in fact – contrary to what was thought both in antiquity and among many contemporary scholars – the etymology of the word does not indicate the "entry" of something into the soul, and it does not even derive directly from the word *psyche*. Rather, as Casadio rightly notes:

It was formed from the verb *empsychoo*, "to animate" (which in turn is connected through *empsychos* and *psyche* to the verb *psycho*, "to blow"), to which the preverb *meta* (Lat. *trans*), which denotes not only change, but also succession or repetition, and the suffix *sis*, denoting abstract action, were added.⁴

Therefore, the origin and even the usage of metempsychosis denotes the idea of blowing the soul back into a body. The cycle is thus conceived as a series of acts of inhaling the life-soul, an image which refers to the *pneuma* in the interior of a body and is clearly dependent on the Ionian physical conception of *aer*. Anaximenes fragment 2 links the three terms *psyche*, *pneuma*, and *aer* in the same sentence: "as they say, our soul, which is air, holds us together, thus, air and breath keep the entire cosmos together" (13 B 2 DK). This indicates a strong continuity,

supports this traditional attribution, along with Rohde 1871, 566; Burnet 1908, 92; Lévy 1926, 50; and Zeller/Mondolfo 1938, 314. He adds clearly convincing arguments, grounded in the passage's skeptical tone, which certainly cannot be attributed to Porphyry, a believer. It would more plausibly be a creation of Dicaearchus, Aristotle's skeptical student, who in other fragments reveals the same skepticism and irony; he stated, for example, that the soul is simply a word (fr. 7 Wehrli), and that Pythagoras was, in the past, a beautiful courtesan (fr. 36 Wehrli). For a new edition of Dicaearchus' texts see Mirhady 2001.

- 3 Our investigation does not allow us to develop an account of the archaic journey model. It is helpful to refer to Betegh's discussion (2006) for the formulation of the model, as well as to two recent studies that develop a variation of this model, κατάβασις, that is, the journey to Hades (Cornelli 2007; Ustinova 2009). Memories of κατάβασις are widely attested within the literature on Pythagoreanism. Among them, of course, is the story of the Thracian Zalmoxis, narrated by Herodotus (4.94–95), whose discipleship to Pythagoras will be discussed below.
- 4 Casadio 1991, 122–123, orig.: "si è formato a partire dal verbo *empsychōō*, 'animare' (che a sua volta è collegato, attraverso *empsychos* e *psychē* al verbo *psycho*, 'soffiare'), cui è stato aggiunto il preverbo *meta* (lat. *trans*) denotante non solo il cambiamento ma anche la successione o ripetizione e il suffisso *-sis* denotante l'azione astratta." See for the ancient debate especially Olympiodorus (*In Phaed.* 135 Westerink); for the contemporary debate Kerényi 1950, 24 and von Fritz 1957, 89 n. 1.

at least in relation to these mantics of “metempsychosis,” with the oldest conceptions of soul-breath-life.⁵

What matters most for the aim of this paper is that the tradition, from its very beginnings, associates the theory of transmigration with the figure of Pythagoras.

Pre-Aristotelian testimonies

I shall summarize my present concerns about all the pre-Aristotelian traditions on this topic, rather than discuss each one of them in detail. This is primarily, of course, for reasons of economy, but secondly because I have already discussed them more closely in my last book (Cornelli 2013).

The oldest testimonies attributing the doctrine to Pythagoras suggest to me two different hermeneutic routes. First, although old, the theory of the immortality of the soul, apocalyptic by its very nature, does not imply the existence of a dogmatic system of beliefs. That is to say that, across the various strata of the Pythagorean tradition, the concept of this immortality significantly differed. Second, and as a result of the first route, it turned out to be necessary to verify how the reception of the theory by later sources contributed to the construction, through it, of the category of Pythagoreanism. The testimonies of Xenophanes, Heraclitus, Ion, and Empedocles suggest that metempsychosis is quite an old theory, corresponding to the proto-Pythagorean stratum. For the same reasons given above, I will not say much about Plato on this topic: I still believe that Plato is a reliable source for the existence of a proto-Pythagorean theory of the soul and for a close relationship between that same theory and its Orphic origin.⁶ This relationship was described as a mytho-logic exegesis by Pythagoreanism of the Orphic traditions, in the manner of the Derveni papyrus. In short, Plato, revealing his debts to Orphism, ends up pointing directly to the philosophical blending that Pythagoreanism must have developed from the former. A recent paper by Betegh (2014), dedicated to a reassessment of the relationship between Orphism and Pythagoreans, suggests the need for a refinement of Burkert’s classic image of overlapping circles. It is probably worth reminding ourselves here of Burkert’s idea (1985, 300): “Bacchic, Orphic, and Pythagoreans are circles each of which has its own centre, and while these circles have areas that coincide, each preserves its own special sphere.” Betegh is probably right to point out something that the image could wrongly suggest: the borders of the circles, and the contents of each, are fairly indistinct and one should not expect to find clear internal consistency or fixed borders (2014, 153).

The testimonies of Herodotus, Isocrates, and Democritus, and the legends of immortality and apparent deaths, and especially those focused on Pythagoras’ own effective metempsychosis, such as that in Heraclides Ponticus (D. L. 8.4-5 = Heraclid. Fragment 89 Wehrli), do not permit firm philological or hermeneutic

⁵ See for this continuity, the observations of Casadio 1991, 142 and Bernabé 2004, 76–78.

⁶ See more recently on the topic Bernabé (2011).

conclusions. So I feel entitled to skip to Aristotle himself to find the most explicit testimony of the existence of a proto-Pythagorean theory of metempsychosis.

Aristotle's testimony

I used to disagree with a part of the history of criticism which has worked with the assumption that Aristotle's testimony is valid. Since Cherniss (1935 and 1944), with his attempts to reassess the validity of Aristotle's (as well as Plato's) testimony about the Presocratic philosophers, I found myself convinced that Aristotle is not, in any of the works we have, attempting to give a historical account of earlier philosophy. He is using these theories as interlocutors in the artificial debates which he sets up to lead "inevitably" to his own solutions.⁷

However, at least in this case, Aristotle himself provides the most explicit philosophical testimony to the existence of a Pythagorean doctrine of metempsychosis. A passage from *De Anima* reveals the difficulty of attributing a coherent theory of metempsychosis to the early Pythagoreans. Aristotle seems initially to complain about this difficulty:

All that these [philosophers] do is describe the nature of the soul; they do not try to determine anything about the body which is to contain it, as if it were possible, as in the Pythagorean myths, that any soul could be clothed by any body.⁸

Centrone (1996, 105) suggests that this complaint by Aristotle depends more on omissions (or lack of coherence) within the writings to which he was referring than on a lack of information on the issue, which would contradict the testimonies that indicate that he was in possession of several Pythagorean writings.

Indeed, Chapter 2 of Book 2 of the *De Anima*, which examines contemporary doctrines about the nature and properties of the soul, engages in an extensive critique of the inadequacy of all the theories of his predecessors, both in relation to failing to understand what the specific properties of the soul are, and especially for failing to pay attention to the crucial issue of the relationship between soul and body. In fact, "the philosophers," that is, his predecessors, fuse the soul to the body by "conjugation" (*synaptousin*) or "juxtaposition" (*titheasin*), without adding any specification of the reason for their union, or of the bodily conditions required for it (*De an.* 407b13-17).

The Pythagorean myths mentioned in the passage constitute one of the most significant examples of this error. The absurdity (*atopon*, v. 13) of the explanation

7 Cherniss 1935, xii. See also Cherniss 1935, 349–350, 356–357. Burnet 1908, 56 had already begun to distrust Aristotle's editorial choices, speaking of this habit of his of "putting things in his own way, regardless of historical considerations." See also Schofield (2012) for a recent broader discussion of the Pythagorean discussion of *Metaphysics* A5 as Aristotle's attempt to depict a "mainstream Pythagoreanism" in his account of the school (2012, 143).

8 *De an.* 407b20–23.

put forward by both Plato's *Timaeus*, as well as all previous theories of the soul (see 13–14), is visually exemplified by the following image:

It is as absurd as to say that the art of carpentry could embody itself in flutes. Instead, each art must use its tools, each soul its body.⁹

The soul, in the elegant image of Aristotle, resembles an art. As such, it requires its own instrument, that is, a body. This is contrary to the assumption of the Pythagorean myths that any soul can enter any body.

This immediately brings to mind metempsychosis.¹⁰ The very movement indicated by the verb *endyesthai*, the soul's act of "entering" the body, evokes the image of transmigration.¹¹ Several scholars, however, have raised problems in relation to Aristotle's reference to metempsychosis at *De Anima* 407b20–23. Zeller perceives a contradiction between this passage's explanation of the myths and the moralized elements of Pythagorean metempsychosis:

The theory of the soul that enters the newly-born within the air of its first breath, casually and however it may chance (*kata tous Pythagorikous mythous*, writes Aristotle in the above passage), probably contributes to demonstrating its deficiency in comparison with the doctrine of transmigration, where reincarnation must somehow represent (as is said in the myth of Er) a consequence of the previous life, thus requiring a match between the temperament (*krasis*) of the soul and the body in which it enters.¹²

The reference to the kind of entrance of the soul to the body prompts a tendency to understand this passage in light of the previous one from 404a16 ff., where the soul-dust would have corpuscular features, as discussed above.¹³

Indeed, the theory of metempsychosis implies moral responsibility in life, followed by a post-mortem trial, which contradicts the idea of randomness represented by the repetition of the adjective *tychon* (and by the phrase "any soul in

⁹ *De an.* 407b24–26.

¹⁰ This theory is called *μῦθος* also in Plato (*Gorg.* 492e).

¹¹ See for this Kranz (Diels-Kranz 1951 I, 504, 7–9).

¹² Zeller / Mondolfo 1938, 562, orig.: "La teoria dell'anima che entra nel neonato dall'atmosfera circostante con il primo respiro, a caso e come càpiti (*katá tous Pythagorikoús mýthous*, dice Aristotele nel luogo sopra citato) viene probabilmente a mostrare in pieno il suo difetto nella sua connessione con la dottrina della tras migrazione; dove la reincarnazione deve pur rappresentare (com'è detto nel mito di Er) una conseguenza della vita anteriore, ed esige quindi una corrispondenza fra il temperamento (*krâsis*) dell'anima e quello del corpo in cui entra."

¹³ Cf. Timpanaro Cardini 1958–1962, III, 213; Maddalena 1964, 340–341; and Guthrie 1962, 129 and 260.

any body").¹⁴ Most scholars (Burkert 1972, 121 n. 3) seem to consider that Aristotle is referring, in this specific case, not to a single soul and a body, but rather to the general nature of the relationship between bodies and souls.

Timpanaro Cardini also displays skepticism over whether the passage refers to metempsychosis, but she advances an original and smart explanation for this. According to her, the example of the carpenter and the flutes unmistakably indicates that the passage cannot refer to metempsychosis, and should instead be simply understood as referring to the association between body and soul. The reason for this is that it would not make sense that the art of the luthier be considered by Aristotle as separate from the flute because, in order to improve his ability, that is, his art, the luthier needs the flute as the soul needs the body (Timpanaro Cardini 1958–1962, vol. 3, 214). However, Alesse 2000, 403 n. 23 rightly notes that Timpanaro Cardini's reading depends on a mistaken translation of τεκτονική: Timpanaro Cardini believes that this is the art of the luthier, while it would be more plausible that Aristotle was referring in this case, to the art of the flute player, that is the flute can be used only by one who possesses the art of playing that instrument to perfection. Aristotle would be saying here: this would be the flute player, not the luthier. The terms of similarity, however, are quite clear: on the one hand, art and soul, on the other, the flute and the body; just as the body stands in relation to the soul, the flute is the matter that is predisposed to accept the art form of the flautist, and only from him or her, not the art of the carpenter-luthier. Cherniss (1935, 325 n. 130) suspects that the passage could refer more precisely to the Platonic theory of the *Timaeus* that there is a choice of the body after the first life, thus representing more an anti-Platonic polemic than an anti-Pythagorean position. However this is read, the reference to metempsychosis remains in the passage, which is what is most directly relevant to our investigation.

A few pages later in the *De Anima*, Aristotle seems to refine the critique in 407b by indicating that the problem is more specifically that souls enter different bodies:

The body cannot be the actuality of the soul; it is the soul which is the actuality of a certain kind of body. Hence the rightness of the view that the soul cannot be without a body, while it cannot be a body. In fact, it is not a body but something relative to a body, and that is why it is in a body, and a body of a definite kind, but not as former thinkers thought, who merely fit it into a body without adding a definite specification of the kind or the qualities of that body, even if it is evident that any one thing cannot receive any other thing.¹⁵

¹⁴ Rathmann 1933, 17 ff. agrees with Zeller as much as Maddalena 1964, 340 and Casertano 1987, 19 f.

¹⁵ *De an.* 414a18–25.

Aristotle's criticism must be understood within the context of his theory of the soul as the *entelecheia* of a body, by which it performs the functions that are already potentially in the matter which constitutes the body. Therefore, even if it is evident that "any one thing cannot receive any other thing," to claim that any body can receive any soul is still to operate at too high a level of generality – only a specific kind of body can receive a specific kind of soul, echoing the same idea expressed in 407b, in which it is written that "any soul could be clothed by anybody" (v. 23).

Aristotle's criticism in the two passages is directed at Pythagorean metempsychosis. Aristotle could not admit the possibility of a soul entering into a body of which it is not the *entelecheia*, as would happen in the case of the transmigration of a human soul into an inferior animal body.

In addition to the theory of *entelecheia*, a principle of subsumption, in which a higher form contains within itself the lower form, "as a quadrangle contains the triangle" (*De an.* 414b31), is also at stake in Aristotle's critique. The same goes for living forms, since "the case of the figures is similar to that of the soul" (*De an.* 414b29). However, the opposite is not true; incidentally, it is absurd (*De an.* 407b13). This is quite a Pythagorean approach from Aristotle, I would say, in that it connects figures and souls.

Of course, the Aristotelian attack here is directed not only at the theory of metempsychosis, but also at the logically related theory that Porphyry (*VP* 19), among others, considered to be notoriously Pythagorean, namely universal kinship.

In any case, we can conclude that page 414a of the *De anima* not only refers specifically to metempsychosis, but that it is a continuation of the immediately preceding passage at 407b. The Pythagorean myths of that page can be understood, therefore, as the theories of metempsychosis of the soul.

More difficult – although central to our discussion – is to determine whether these Aristotle passages refer to proto-Pythagoreanism, or, conversely, to the Pythagoreanism of Philolaus and Archytas, who was contemporary to him.

The term *mythoi*, used to indicate these doctrines, is a sign that Aristotle considered the mold but not necessarily devoid of all truth. Decisive proof of this is that he bothers to refute them. The semantic scope of the terms *mythos* or *mythologein* is often connected in the work of Aristotle with that of *theologoi* and *palaioi*, indicating not so much a decline in the theoretical value of the doctrines, but more precisely obsolescence. Such *mythoi* have insufficiently developed logical arguments and simply do not fit the "contemporary" way of doing science.¹⁶ Aristotle considers Homer, Hesiod, and the Orphics, but also some physiologists, to be *θεολόγοι* and *παλαιοί*: this is the case also with the Pythagoreans, in *Met.* 1091a34–b12, who are there called *θεολόγοι* in the context of the discussion of the number one and the dyad which resumes the discussion of book *A* on the sub-

16 See *Met.* 1074b1, 1091b9; *Pol.* 1269b28, 1341b3; *De caelo* 284a23.

ject, in which the Pythagoreans are clearly cited as being in opposition to Plato (*Met.* 987b14–988a8).

Consider the page of the *Metaphysics* dedicated to the idea of the divine that surrounds nature:

A tradition in myth form was passed onto posterity from the old and ancient, according to which these realities are gods, and the divine encloses the whole of nature. The rest of the tradition was added later to persuade the people and to make them subject to the laws and to the common goods. In fact, they say these gods are in human form or are similar to certain animals and add to these other things of the same or similar nature. If, of all of them, regardless of the rest, we assume only the fundamental point, that is, the claim that the first substances are gods, we must recognize this as being made by divine inspiration.¹⁷

The theoretical core of the theory, according to Aristotle, should be considered as still valid. However, even if the theory is valid, these mythological arguments are the wrong kind of justification for the theory. Similarly, the Pythagorean myths, however ancient, received critical consideration in the passages discussed above.

Therefore, it is very likely that by the expression “Pythagorean myths” Aristotle is referring to the early Pythagorean doctrines.¹⁸ A further proof of this is that the expression is never used in the argumentation Aristotle makes when discussing Pythagorean mathematics, for example, which only goes back to sources from the fifth century BC, such as Philolaus, and whom Aristotle identifies in Book A of the *Metaphysics* as the “so-called Pythagoreans.”¹⁹

Another lexical mark of this antiquity is the verb used by Aristotle in the passage from the *De Anima* (407b20–23) to indicate metempsychosis: *endymomai*, “to enter” (the soul enters into the body). The same verb is used by Herodotus to describe the transmigration of the soul when indicating the Egyptian origin of the theory of metempsychosis (Hdt. 2.123, see 3.5). In Plato, the verb is used in two passages to indicate the metempsychosis of a soul that was in a man and enters into an animal: “asses and other beasts of that sort” (*Phaed.* 82a), or “an ape” in the case of the ridiculous Thersites’ soul within the myth of Er (*Resp.* X 620c). The two Platonic passages illustrate precisely what Aristotle sees as an absurd consequence of the theory of metempsychosis: the possibility of a human soul entering into the body of an inferior animal.

If we enlarge the meaning of the verb *ἐνδύομαι* to the semantic sphere of “to dress” (Alesse 2000, 409–411), which also belongs to it, the verb would point immediately to a wide range of images of the body as a garment of the soul, present in both the Platonic writings (*Phaed.* 86e–88b) and in Empedocles’ fragment 126.

¹⁷ *Met.* 1074b1–10.

¹⁸ See in this sense Alesse 2000, 408.

¹⁹ For this identification of the Pythagorean doctrines of Book A of the *Metaphysics* with Philolaus’ Pythagoreanism see Burkert 1972, 236–238; Centrone 1996, 105; and Huffman 1993.

A garment also has the meaning of a tomb in the tradition of the body as the tomb of the soul, which is close to an Orphic sensitivity.

The Aristotelian vocabulary of the passage suggests, therefore, that it refers to the ancient traditions of the theory of metempsychosis, which Aristotle calls "Pythagorean myths," probably recognizing proto-Pythagoreanism as the source of these doctrines on the immortality of the soul and its transmigration. Aristotle thus becomes one of the most reliable sources for the attribution of the theory of metempsychosis to the older Pythagoreans.

Conclusion: universal kinship and metempsychosis

It is worth mentioning that attributing a theory of metempsychosis to proto-Pythagoreanism means much more than simply recognizing a dialogue between the latter and the Orphic culture of its time. For, in itself, the theory of transmigration of the immortal soul assumes the theory of universal kinship.²⁰ This theory is also implied by Empedocles fragment 129 and is not only a logical consequence of the very theory of metempsychosis, but embodies a general law of how the cosmos works that embraces past and future, and both human beings and other living beings, in a coherent explanation of how life in the universe works. With its attributes of a totalizing explanation and basis in the premise that the cosmos and life are eternal, this doctrine can certainly be regarded as a genuine expression of the kind of knowledge in the history of philosophy which has generally been called Presocratic.

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²⁰ See Delatte 1992, 175 for the quotations of this doctrine within ancient literature.

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Pythagoras and Christian Eschatology: The Debate on the Transmigration of Souls in Early Scholasticism

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1 Introduction: Pythagoras and medieval encyclopaedias

Anyone trying to reconstruct the image of Pythagoras in the Middle Ages must first grant that the sources available to the Latin scholarly world were scant.¹ Theologians and philosophers of the period from AD 500 to 1400 had almost nothing that could take them further than the patchwork of references in classical Latin literature. Nonetheless, Pythagoras was very much present in the Latin Middle Ages, albeit, as will be shown below, in two very different strains.² One strain linked him with popular philosophy, with texts that addressed a broad public, often without Latin, in histories of philosophy, vademecums, and proverb collections. A second tradition brought Pythagoras into the philosophy of the universities, namely the academic theology of the *summas* and *sententia* collections, but here, as we will see, a single doctrine was taken as a synonym for the philosophy of Pythagoras, namely the transmigration of souls.

In the first of these two groups of medieval Latin genres – the lay ethical works and the compilations and collections of popular philosophy – Pythagoras had a secure position, and the breadth of the transmission of these works can hardly be overstated. Pythagoras became a proverbial source of conventional wisdom and he was established as the founder of both philosophy and music theory. Asceticism, moderation in all things, and emotional control were the signature features of Pythagorean doctrine. The same information, by and large, recurs in doxographies, collections of dicta, and encyclopaedias that include philosophy, and the result is a relatively unified picture.³ If we look up Pythagoras in the *Lives of the philosophers* which long circulated under the name of Walter Burghley and the *Compendiloquium* of John of Wales,⁴ in the thirteenth century the most important medieval history of philosophy, we find well-established traditions of tralaticious

1 This chapter has been translated from German by Orla Mulholland.

2 A basic and well researched study of the role of Pythagoras in medieval Latin literature has been made by Maaz 1998, 385–417.

3 On Pythagoras in medieval doxographies and encyclopedias, see Maaz 1998, 403–406, 414–416.

4 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 66–81; John of Wales 1655, *Florilegium sive compendiloquium*, Pars III, Distinctio VI, c. 1–12, 234–252.

material.⁵ Very similar sketches could be found already in John of Salisbury's *Policraticus*, which was also read as a summa of ancient philosophy,⁶ or in the *Speculum historiale* of Vincent of Beauvais, which likewise included expansive treatments of the history of philosophy.⁷

It was the consensus of all these authors that Pythagoras had travelled to Egypt in pursuit of wisdom and then to Babylon for the sake of its astronomy; he studied the laws of Minos on Crete and those of Lycurgus in Sparta. In Croton, as was unanimously agreed in the Middle Ages, he himself had become a lawgiver and had set up commandments, which all stood under the maxim of *frugalitas*, to eradicate the rampant local tendency to luxury. Pythagoras removed children from their parents and raised them separately to ensure their chastity and separated the matrons from the men, to protect them from the latter's importunities.⁸ Already Boethius, who devotes a few lines to Pythagoras at the start of his work *De musica*, had no doubt that Pythagoras was the source of the theoretical principles of music, namely the knowledge of rhythm and harmony, the relation of chords to each other, and the length of the strings.⁹ This particular role of Pythagoras was popularized by Isidore of Seville's *Etymologies*;¹⁰ it is repeated both in the doxographies and in the opening chapters of late Carolingian treatises on music,¹¹ in Regino of Prüm, or the *Musica enchiriadis* of Hoger of Werden.¹² A second aetiology linked Pythagoras, as might be expected, with philosophy. Cicero had mentioned him in his *Tusculan Disputations* as the first to use the term *philosophus*: the sage had declared that many people came to the forum for the sake of pleasure, entertainment, or financial gain, but a person who went to the forum to study all these professions, to see their true nature, and to understand their essence, that was a philosopher, Pythagoras had insisted.¹³ Augustine had apostrophized Pythagoras in the *City of God* as founder of the applied sciences of life;¹⁴ Hugh of St Victor had begun his *Didascalicon*, his catalogue of sciences, with the same observation;¹⁵ nor did the doxographers overlook this special role of Pythagoras.¹⁶ This ennobling of the Graeco-Italian sage might seem to be di-

5 For a good survey of John of Wales, see Schmidt 2000, here 250–258, and Swanson 1989, 167–200.

6 John of Salisbury 1909, vol. 2, Liber VII, c. 4, 102–104.

7 Vincent of Beauvais 1624, Liber III, c. 23–26, 94–95.

8 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 66–69, Vincent of Beauvais 1624, Liber III, c. 24, 94, John of Salisbury 1909, vol. 2, Liber VII, c. 4, 102–103, John of Wales 1655, Florilegium, Pars III, Distinctio VI, c. 2, 235–236.

9 Boethius 1872, Liber I, c. 1, 4–5.

10 Isidore of Seville 1987, Liber III, § 2.

11 John of Wales 1655, Florilegium, Pars III, Distinctio VI, c. 7, 243–245.

12 Regino of Prüm 1784, vol. 1, § 1, 240–241.

13 Cicero 1992, Liber V, § 9, Latin and German, 322–325.

14 Augustine of Hippo 1955, Liber VIII, c. 2, 217.

15 Hugh of Saint-Victor 1997, Liber I, c. 2, Latin and German, 116–119.

16 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 68–69, Vincent of Beauvais 1624, Liber III, c. 23, 94, John of Salisbury 1909, vol. 2, Liber VII, c. 4, 103, John of Wales 1655, Florilegium, Pars III, Distinctio VI, c. 1, 234–235.

minated by Augustine's observation, in the same work, that Pythagoras was the founder not only of philosophy but also of much of necromancy, for, according to Augustine, Pythagoras used occult rituals and divined with blood. It is interesting, however, that this observation by the Church Father exerted almost no influence on the medieval image of Pythagoras.¹⁷

Not only philosophical encyclopaedists like John of Salisbury, John of Wales, Walter Burghley, or Vincent of Beauvais,¹⁸ but also authors of preachers' encyclopaedias like John of Bromyard, all stress the massive moral authority that Pythagoras enjoyed among his followers. *Ipse dixit*: mere citation of the great master's apophthegm was enough to make any debate wither on the vine.¹⁹ John of Salisbury and John of Wales, among others, make special reference to Pythagoras' vegetarianism, which had raised his influence in moral matters even higher.²⁰ From the Church Fathers on, and above all in Jerome's Kohelet commentary, Pythagoras' relation to his pupils and community was a feature of the 'Lives' of Pythagoras.²¹ The great sage judged the aptitude of his adepts from the expression on their faces; whoever passed the test was allowed to join the collective but, as is consistently stressed, was at first obliged to remain silent. Any member of the community enjoyed the solidarity of all its members, who were truly a single heart and soul, as Vincent and Burghley underline. Likewise a commonplace was the *exemplum* cited in the Latin Middle Ages for the Pythagoreans' distinctive friendship, the proverbial *amicitia* of Damon and Phintias, transmitted to the Middle Ages primarily by Cicero and Valerius Maximus, which, as was generally known, stood firm even in the face of Dionysius of Syracuse.²² Burghley and the *Compendiloquium* repeat this episode,²³ but so does one of the most important Latin collections of *exempla*, the *Gesta Romanorum*.²⁴

2 The *enigmata* tradition

A distinct unit within the medieval Pythagoras tradition is formed by the "Enigmata" of Pythagoras; these were transmitted through the medium of the doxographies, i. e. Vincent of Beauvais or Burghley, and also in the *exempla* collections like the *Gesta* and the dicta and sententia collections, i. e. collections of philo-

17 Augustine of Hippo 1955, Liber VII, c. 35, 215.

18 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 70–71, Vincent of Beauvais 1624, Liber III, c. 24, 95, John of Salisbury 1909, vol. 2, Liber VII, c. 4, 102, John of Wales 1655, *Florilegium*, Pars III, Distinctio VI, c. 3, 236–237.

19 John of Bromyard 1516, Eucharistia, E VI, a. 8, § 28, fol. 104vb.

20 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 70–71, Vincent of Beauvais 1624, Liber III, c. 24, 95, John of Salisbury 1909, vol. 2, Liber VII, c. 4, 103, John of Wales 1655, *Florilegium*, Pars III, Distinctio VI, c. 3, 237.

21 Jerome 1959, Liber III, c. 7, 276.

22 Cicero 1971, Liber III, § 10, 98–99; Valerius Maximus 1998, vol. 1, Liber IV, ext. 1, 282–283.

23 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 72–73, John of Wales 1655, *Florilegium*, Pars III, Distinctio VI, c. 10, 247–248.

24 *Gesta Romanorum* 1872, c. 108, 440–442.

sophical sayings that circulated separately from the doxographies.²⁵ In Pythagoras' case these consist of pithy, at times strikingly phrased moral saws, which, despite their apparent triviality, as a collection ultimately go back to Diogenes Laertius.²⁶ Any historian of philosophy tempted to disdain this collection of Pythagoras' *sententiae* on account of their commonplace character should bear in mind that the genre of dicta, which could bridge Latin and the vernacular and the Arabic and European traditions, may well have been the primary vehicle for the transmission of Pythagorean doctrines, ahead of all other textual genres. Quasi-Pythagorean *sententiae*, or ones that are at least ascribed to Pythagoras, can be found in the *Fiore de virtù*, a collection of sayings about virtue; this collection had an especially wide circulation in the Romance languages, with not only an Italian version, but also Spanish and Catalan ones.²⁷ More Pythagorean sayings are found in a similar *sententia* collection, the *Bocados de Oro*, in the Latin version called the *Liber philosophorum antiquorum moralium*, which circulated also in English, French, and Provençal.²⁸ It was based on an Arabic collection, the *Mujtar al-Hikam* of Abul-Wata al-Mubassir, which in turn was based on the *Kitab Adab al-falasifa* of Honain Ibn Ishaq, that is, Johannitius.²⁹ A Hebrew version of this work, the *Mosrei ha-filosofim* of Al-Harizi, also circulated widely.³⁰ In this forest of texts it is near impossible to trace how individual strands of tradition depend on each other.

A connecting thread within the many traditions and variants in different vernaculars may be that, beside other ancient heroes of wisdom like Bias or Zeno, it is primarily Pythagoras who in all these collections becomes the defender of *temperantia*, of moderation, and the spokesman for sound living and emotional balance. These less than earth-shaking *sententiae* include sayings like "Don't jump over the scales" (i. e. don't forget about justice), "Don't smother a fire with a sword" (i. e. don't provoke an angry person), "Don't travel by public roads" (i. e. don't follow the crowd), or "Don't let a swallow nest in your house" (i. e. avoid gossips). The more expansive sayings are often repeated also in the works known as "mirrors of the laity" (*Laienspiegel*), such as the *Speculum laicorum* of John of Hoveden, or moral encyclopedias like the *Summa praedicatorum* of John of Brom-

25 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 74–81, Vincent of Beauvais 1624, Liber III, c. 25, 95.

26 Diogenes Laertius 2005, Book VIII, §§ 17–18, Greek and English, vol. 2, 334–337.

27 See the "Fiore di virtù," ascribed to Tommaso Gozzadini, *Fiore di virtù* 1895a, 235–253, 431–452; and *Fiore di virtù* 1895b; on its sources in addition Corti 1959, here 29–82.

28 On the wideranging tradition of the *Liber philosophorum*, see Franceschini 1976, passim. On Pythagoras see e. g. in Spanish *Bocados de Oro* 1971, 33, 36; in Latin *Liber philosophorum moralium antiquorum* 1931/32, 427, 429; in the medieval French of Guillaume de Tignonville, the *Ditz Moraulx* 1915, 929, 931; or in the English version of Stephen Scrope as *The Dicts and Sayings of the Philosophers* 1941, 54, 55.

29 Honain ibn Ishāq 1985, see on Pythagoras e. g. 118.

30 Al-Harizi 1896, see on Pythagoras e. g. 34.

yard,³¹ or in poetry on relevant themes, such as the *Architrenius* of John of Hauvilla.³² In part they had been collected already by Jerome;³³ they consist of pieces of advice about how to live one's life, such as "The less one suppresses anger, the more one becomes its slave," "No-one speaks well who cannot also stay silent," "All wealth squandered or hoarded is useless," "Keep weariness from the body, arrogance from the soul, gluttony from the belly, and revolt from the state." In answer to the question, "What is philosophy?," Pythagoras is said to have replied, "Meditatio mortis," the reflection on death, and to the question, "What is new in the world?" the answer, appropriate to the Kohelet, "Nothing." If we believe the *Bocados de Oro*, he informed a pupil, who had admitted that he would rather spend time with women than with philosophers, that pigs would feel more comfortable in dirty water too.

3 The idea of transmigration

The Latin Middle Ages thus acquired a picture of an ethicist whose sayings, aimed at the Aristotelian mean, could easily be integrated into the prescriptions of Christian lay ethics and whose stricter demands for chastity, asceticism, and vegetarianism fitted just as smoothly into the Rules of the monastic orders, the religious elite's catalogue of standards. The *Laienspiegel* and the ensemble of monastic virtues were thus equally able to profit from the ancient sayings. However, it was a different element of Pythagorean teachings that became the touchstone for dealing with Pythagoras in the Latin Middle Ages. It was well known that Pythagoras' vegetarianism and chastity were only the external moral consequences of a metaphysics that centered on the transmigration of souls, as the doxographies record. Ovid, in Book 15 of the *Metamorphoses*, had given a speech to Pythagoras in which the sage proclaimed that a long chain of reincarnations had preceded his last life, running from the Trojans to Thales.³⁴ Every Latin school pupil was familiar with this core element of Pythagoras' doctrine, for which he had been criticized already by Jerome.³⁵ John of Salisbury, John of Wales, and Vincent of Beauvais all stress that Pythagoras had quite rightly – and Christianly – insisted on the immortality of the soul, but that he had then said it migrated from body to body after death.³⁶ Many stages could be expected to occur on this journey, as the author of the *Policraticus* notes: animals could become humans, humans become

31 On John of Hoveden, see Welter 1914. As an example see John of Bromyard 1516, Consilium, C X1, a. 4, § 9, fol. 62v.

32 Johannes de Hauvilla 1974, Liber VII, c. 4–6, 238–240.

33 Jerome 1883, Liber III, c. 39–40, cols. 506–509.

34 Ovid 2004, Liber XV, V. 60–478, esp. V. 156–175.

35 Jerome 1883, Liber III, c. 39–40, cols. 506–509.

36 Ps.-Walter Burghley 1886, c. 17, Old Spanish and Latin, 78–81, Vincent of Beauvais 1624, Liber III, c. 25, 95, John of Salisbury 1909, vol. 2, Liber VII, c. 4, 104, John of Wales 1655, *Flori-legium*, Pars III, Distinctio VI, c. 10, 249–250.

animals again, men could even become women; all of life would appear as a great cycle passing on one to the other from phase to phase.³⁷

These and similar statements admittedly remain at a superficial level. Why should the soul be provided with a body again after death at all? Anyone who wanted more detail could, already in the Carolingian period, consult Calcidius, whose Latin commentary on the *Timaeus* provided a critical introduction to the whole of ancient philosophy.³⁸ The significance of this text for the speculative philosophy of the twelfth century can hardly be overstated.³⁹ Calcidius draws a more nuanced picture of Pythagoras than was attempted by the historians of philosophy of the twelfth and thirteenth centuries, who were bound by the limitations of their textual genres. In the monumental work of Calcidius, who could still draw on the whole of late antique Greek philosophy, the interested reader could find testimonies for the Pythagorean doctrine of number, largely taken by Calcidius from Theon of Smyrna: monad and dyad stand in opposition to each other like spirit and matter, god and the world;⁴⁰ the ideal number is the heptad, which embraces both the courses of the planets and the musical intervals;⁴¹ the decad presented the first so-called quadrature of 1, 2, 3, and 4.⁴² More important, however, was the idea of metempsychosis. Calcidius reported that, for Pythagoras, each soul had its own home in the realm of the stars, appropriate to its divine origin, but it was obliged to descend into the lower world to be purified. It united with a body, filled it, and at the moment of death separated from it again. Further embodiments could follow – a long chain of animal or human forms that would become the soul's new lodging.⁴³ Calcidius, matching the "Golden Verses of Pythagoras," reports that, once the soul again achieved the state of perfection, it divested itself of corporeality, and with it the whole human person, and returned to the heavens.⁴⁴ The redeemed and perfect souls distributed themselves among the planets, where they could live in a way befitting their nature.⁴⁵

The *anima* thus existed for itself; Pythagoras had declared that in its state of purity it did not require embodiment, but that in other conditions it was obliged to migrate from body to body. As is well known, Christian philosophy since at latest the major sententia collections, that is the theological textbooks of the late

37 John of Salisbury 1909, vol. 2, Liber VII, c. 10, 133–134. See on this special skill of Pythagoras in addition Hyginus 1992, § 112, 87.

38 As edition see Calcidius 1962. Recently a French translation has been produced, see Calcidius 2011.

39 On the role of Calcidius in the history of Platonism see e.g. Gersh 1986, vol. 2, 422–434, or Dillon 1977, 401–408. On the early medieval reception of Calcidius see e.g. Huglo 1990, 3–20, and e.g. Eastwood 2007, 313–372.

40 Calcidius 1962, §§ 296–297, 298–300.

41 Ibid., § 97, 148–150.

42 Ibid., § 35, 84–85.

43 Ibid., §§ 196–197, 217–219.

44 Ibid., § 136, 176–177.

45 Ibid., §§ 200–201, 220–221.

twelfth century (though in fact since the Church Fathers), had favoured a different concept of the person, and hence also a different form of human identity, which was closely linked to the role of the body in resurrection and eschatology.⁴⁶ Body and soul, as form and matter, together constituted the human person. Even if the soul could subsist in itself, at the moment of resurrection it required the individual body to which it had been assigned, which completed man in his personhood. Only in matter was man's whole individuality assured. Furthermore, as was unanimously stressed, it had to be entirely the same body, for only in the combination of form and matter was responsibility beyond death conceivable. The soul that was ordered back to life by God therefore did not receive merely a similarly designed body matching the previous one in sex and shape, though in an optimized form; rather, the creator removed the old body's imperfections, yet the transfigured body must nonetheless consist of a substance standing in a direct causal relation to the original body.

4 William of Auvergne and Pythagoras

It is thus no accident that, of the range of doctrines of Pythagoras known in the Middle Ages, it was metempsychosis that became the focus; indeed, in this context it made Pythagoras the protagonist of a view that had been refuted by the coherent wisdom of Christianity.⁴⁷ It fell to William of Auvergne in the early thirteenth century to present a systematic examination of the Pythagorean doctrine of the transmigration of souls. The fact that this French theologian made the effort shows at the least that in this period it was felt that the Pythagorean doctrine merited this attention. It would be tempting to suggest that contemporary heretics from the sphere of the Cathars could have been William's justification in undertaking this task, but this suggestion must remain speculation.⁴⁸ William's refutation is intelligent overall, taking aim at the doctrine's logical weaknesses, but it is in parts unexpected. It would remain authoritative in later periods. Its premises were simple: 1. Only humans possess reason. 2. Body and soul constitute the individual; the soul of a human is directed towards its body. 3. There is only one life, the first phase of which is ended by death and must pass into eternal life.⁴⁹

46 On the medieval debate on resurrection and postmortal identity see e. g. Weber 1973, 125–158, 217–253; Heinzmann 1965, 6–146, Walker Bynum 1995, 229–278, or more recently Solère 2006, here 510–526.

47 Manegold of Lautenbach may have been one of the first medieval Christian philosophers to criticize the idea of transmigration as an example of an un-Christian philosophy, and to connect the idea with Pythagoras, see Manegold of Lautenbach 1972, c. 1, 44–47. On Manegold's use of Chalcidius in general see Dronke 2008, 85–106, on Manegold and Pythagoras see Maaz 1998, 399–401.

48 On William and his treatment of the Cathars in general, see Teske 2006, 81–100, and Bernstein 2005, 271–292.

49 Although Maaz 1998, 401, gives attention to medieval philosophy, he completely ignores William's examination of Pythagoras. The whole refutation of Pythagoras can be found in

Pythagoras had taught, William begins, that the soul of a man was able to pass after death into the body of an animal. For William there was a logical problem here, even before reaching the debate about the body-soul relation. A human soul in its specific body was a soul that was at least potentially equipped with reason. So the animal which, after the death of the human, would be given the freed soul would have to be a rational being too, at least optionally.⁵⁰ But what consequences did this transfer have for the relation of human and animal? Would there be, as William went on to detail, two variants of animals, those that had been given a natural animal soul and those that had a human and hence rational soul? Would there thus, as William further infers, be animals which were, objectively speaking, humans in an animal body as well as true animals: pseudo-horses, -donkeys, and -cattle as well as true horses and donkeys? Had God made, so to speak, a graduated creation and provided for some animals that were animals and other ones that were foreseen as bodies designed as temporary homes for human souls? The moral consequences were not inconsiderable. Should humans treat the one kind of animal differently from the other? Did humans have the right to use the pseudo-horses to plough the fields, or to prick them with spurs?⁵¹ Or did one have to assume, as a Pythagorean could argue, that all creatures are rational creatures and the exercise of reason is limited only by the physical structure of the animal's body? A horse would then have a potentially human soul, but not the body that would make rational abilities possible for this soul. This way out of the problem did not seem plausible to William. The *anima rationalis* was not tied to any body in its activity, as was demonstrated by its contemplative capacities. On the other hand animals, as William concedes, do indeed possess semirational abilities, such as the ability to foretell the weather, which could demonstrate that they might indeed be in a position to undertake acts of reason if an appropriate kind of soul were available to them.⁵²

The second objection to Pythagoras concerned the relation of body and soul. The Greek sage had argued, as William reports, that the souls are obliged to descend into their body to be purified there. But body and soul related to each other, as the tradition well knew, like form and matter and like act and potentiality. The natural order demanded that every form encompass the matter that belongs to it. Hence a soul could not be imprisoned in a body, in an act of *incarceratio*, as William stresses, but must look upon it in a natural desire. Only when the soul left its body, its natural place of rest, did it make sense to talk of a descent. Very obviously, as experience showed, souls can only be separated from their bodies violently. If the separation from the body occurs in a moment of *violatio* and against its will, the bond with it must be a natural one. It would thus be thoroughly unnatural for

William of Auvergne 1674, vol. 1, Pars I/II, c. 14–15, 704b–707a. For a useful summary of the medieval debates on transmigration in general, see Zander 1999, 216–227.

50 William of Auvergne 1674, vol. 1, Pars I/II, c. 14, 704b, G.

51 Ibid., vol. 1, Pars I/II, c. 14, 704b–705a, H–A.

52 Ibid., vol. 1, Pars I/II, c. 14, 705a, A–B.

a human soul to flow into an animal body. Ergo God has assigned to humans *qua natura* the bodies familiar to us.⁵³

Pythagoras had argued, William notes, that the soul would either undergo a purification in its human body, or it would have to take on another, even less perfect body. The Parisian scholar did not find this hypothesis cogent either. Why would the human body be suitable for the improvement of the soul? Did humans not know from experience that in this very body they were especially prone to sin? Why, on the other hand, would man find an animal body to be a worse condition or a punishment? Was he still free in it? Could he still use it as an instrument of sin? If the soul in the body of a horse had no free will and no memory of the misdeeds of its previous life, why should the sojourn in an animal body be regarded as a penance or purification at all? Where was the continuity that could link the old life to the new? And, consequently, who would feel threatened by this scenario and draw moral conclusions from it?⁵⁴

William goes a step further: if there were a chain of reincarnations, in which many further embodiments would follow the soul's repose among the planets, the stages must stand in relation to each other. There must be a continuous consciousness, a chain of memories that would link past and present to each other. How could man otherwise be in a position to see his earlier errors clearly? But do people have such memories? Clearly not. A Pythagorean might argue that a daze, a state of temporary amnesia, could have limited the person's memory. William concedes that it would be entirely understandable if less significant sensual data were to disappear from human memory. But why would such a key episode as the loss of the stellar condition, which was constitutive of one's present state, leave no trace in memory? Why could he himself not recall his sojourn among the stars? William grants that there are people who say they recall previous phases of life and, as they claim, once lived as a bird or a king. But a Pythagorean still could not advance any plausible argument why people would no longer have access to the most important memories from their previous life. The descent into corporeality could not explain this total amnesia. Even when some people claimed that they recalled earlier life cycles, the residence in the stars that was proclaimed by Pythagoras was totally lacking in these supposed reports of experience. Surely at least the philosophers, who are called upon to engage in constant self-questioning and introspection, surely they would be able to call up something comparable from their memory? However on the contrary, thousands of students – it is not clear whether William asked some of them himself – were unable to offer any such recollections.⁵⁵

Another, perhaps more hair-splitting objection to Pythagorean metempsychosis was, for William, presented by the numerical relations of the natural order.

53 Ibid., vol. 1, Pars I / II, c. 14, 705a–705b, C–A.

54 Ibid., vol. 1, Pars I / II, c. 14, 705b, A–B.

55 Ibid., vol. 1, Pars I / II, c. 14, 705b–706a, C–E.

If one wished to avoid the conclusion that the animal world must be divided between the quasi-human and the purely animal type, all animals must have rational, quasi-human souls. William gives a vivid picture of the consequences of such a scenario. Every insect, every worm, myriads of molluscs and insects would have a soul that would be freed again at their death. Every swallow hunting flies would set free thousands of souls on every feeding trip, each of which would be in search of another home. Every day, therefore, millions upon millions of souls would return to the stars or, if they were still too far from perfection, they would be put back into another, perhaps higher body. Migrations like this would exceed the capacity of both the natural world and the planetary system. The number of the stars would not be sufficient to hold all the new souls, nor would the number of the remaining animals.⁵⁶

But William did not stop there. Another point that the Parisian theologian found problematic was the imbalance that must arise in creation as a consequence of the migration of souls. Given that the animals and all the rest of God's creatures had their specific form which they united with their matter, why was this lacking for man? If the soul provided by the stars became embodied because it was forced to do so by the loss of its previous condition, it could not be the natural act of its matter. It was surely not reasonable to assume that the human body took any other form. On this premise, however, man would be the only creature to which God had denied a specific perfection. Man would exist as a soul that had fallen to earth, whereas the other living beings were allowed to exist through their inherent forms, from their natural perfection.⁵⁷ Why would God have allowed such a discrepancy in, of all things, the highest of bodily created beings? If the human soul was not the natural *perfectio* of its body, as the Pythagoreans would have to accept, there would be a further difficulty. Why was the soul confronted with its earthly body at all? With what guilt could it have burdened itself in the stars, so that it was forced to accept a body on earth? No follower of Pythagoras had answered this point. The wish for embodiment could not have been in itself a sin, for the soul had approached the body in a *desiderium naturale* and in a natural way. How could such an inconcinnity be squared with the justice of the Creator? The whole Pythagorean system was thus a massive *insania*.⁵⁸

There was one final, almost gnostic way out of the impasse, as William finally concedes. Did humans in their first, stellar life, as Pythagoras might have argued, possess the condition of an angel? In their embodiment and incarnation had they become like embodied demons? If that were the case Man would never have existed as a distinct species, as William affirmed. The soul that had fallen to earth moved the body in the same way that, in other contexts, was assumed to be done by demons – not as form and the act that substantiates it, but merely as a motor

56 Ibid., vol. 1, Pars I / II, c. 14, 706a, E–G.

57 Ibid., vol. 1, Pars I / II, c. 14, 706a–706b, G–F.

58 Ibid., vol. 1, Pars I / II, c. 14, 706b–707a, F–A.

principle that stands in no immediate relation to the body. Angels who want to appear to humans in their earthly life are obliged to proceed in the same way. Aside from the fact that such an approach could not be reconciled with Christianity, it involved the difficulty already mentioned, as William repeats: Man would be the only creature in the creation that did not present a natural form-matter relation; the human would be a hybrid substance with no place in the order of things.⁵⁹

5 William's legacy

William's analysis of Pythagorean philosophy was the most detailed offered by the scholastic tradition, and it is not mere chance that it occurs at its start. At least from the perspective of university scholars, his refutation of metempsychosis as an alternative eschatology permanently and perhaps authoritatively banished it. A generation later Albertus Magnus briefly mentions Pythagoras and the transmigration of souls. In his *Historia animalium* he admits that a Pythagorean model of the soul could be of some help in providing plausible accounts of unusual phenomena in the animal world. The architectural skills of the bees or ants, or birds that build nests, all exhibit characteristics of rational behaviour. If a general, rational soul operated residually in animals, as Pythagoras had propounded (so Albert), could that not provide an explanation of such semirational achievements in the animal world? Albert rejects this hypothesis straight away.⁶⁰ In his work *De origine animae* he firmly concludes that the migration of souls must fail from a philosophical point of view, even if Pythagoras, as Albert knew, had become a vegetarian on account of the moral consequences. For the Cologne scholar the decisive argument was, once again, the hylemorphic theory of the person. The human soul that had landed in animal bodies, for example in the body of a bird which could make an impression through its gift of song, had lost its humanity, for it lacked its specific matter, the counterpart that had allowed it to become a human in the first place. In an animal body it could only appear as a motor principle; it could not constitute a new individual, for soul and body could not match each other in their new association.⁶¹

Thomas Aquinas, too, adopted William's critique of Pythagoras in his *Commentary on the Sententiae* of Peter Lombard⁶² Pythagoreans and other defenders of the doctrine of transmigration had not seen, as Thomas repeats again, that form and matter stand in all creatures in immediate relation to each other. Even if the soul of man after death was able to subsist in itself as *anima separata*, without its soul it remained *substantia incompleta*. A soul that had taken on an animal body could thus only enter an accidental association with it. It had lost its personal,

59 Ibid., vol. 1, Pars I / II, c. 15, 707a, B–D.

60 Albertus Magnus 1916–21, vol. 2, Liber VIII, Tractatus 6, c. 2, Bd. 1, 672–673.

61 Albertus Magnus 1968a, Tractatus II, c. 8, 31, and Albertus Magnus 1968b, Liber I, Tractatus II, c. 15, 59–60.

62 For a summary of Thomas' refutation of transmigration, see George 1996, 33–52.

numerical identity, which should embrace act and potentiality equally; but thus it had also lost the principle upon which its responsibility depended, and this, after all, as the Pythagoreans wanted to believe, was what had forced it into the body of a dog or a lion in the first place. How could man do penance for his wrongs if he did not continue to exist as the same man?⁶³ In the *Summa contra gentiles* Thomas draws attention to a theological dilemma. Christ had removed original sin from man by his incarnation and passion and had opened the path to salvation for him. What value would the passion of the Saviour and infinite God have if the resurrection were subject to a limit in time and led to a further, finite embodiment? The incarnation of Christ must result in the transfiguration of every individual and not just the transfiguration of the species.⁶⁴

Many of the later commentaries on the *Sententiae*, which at the end of the fourth book treat the resurrection in its distinctions, are aware of the Pythagorean position but regard it as having been firmly refuted by William's work and the verdict of Thomas Aquinas. It required no further argument, for it was trivial. For Thomas of Strasbourg, to give one example, it was self-evident that a soul that united with a new body must constitute a person with a new numerical identity. If Pythagoras insisted that in a previous life he had been Euphorbus, then that would not have been Pythagoras; there was no causal relation that could link the two entities. Form and matter, that is the soul and the old body, would need to find each other again at the moment of resurrection.⁶⁵ All ideas to the contrary by the the followers of Pythagoras were therefore *fabulae*, mere stories, which the tradition had already easily dismissed, as was stressed by Richard of Middletown, one of the Franciscan commentators on the *Sentences of Peter Lombard*.⁶⁶ As late a figure as Francisco Suarez, in his huge *Cursus theologicus*, which was the sixteenth-century heir to the great tradition of scholastic debates on the resurrection, still felt obliged to give brief attention to the doctrine of transmigration, though he did not offer any new arguments, and to reduce it *ad absurdum*.⁶⁷

The later medieval debate about bodily resurrection, which was pursued by thinkers such as Durandus, Duns Scotus, and above all by Petrus de Palude, picking up the argument from Thomas Aquinas, brought other issues to the fore.⁶⁸ Was the reunification of the soul with its body after death an exclusively miraculous event decreed by God, as one might think, or was it perhaps a natural process after all, which brought both components of the human substance together again through an inner causality? How far beyond death did the material-bodily

63 Thomas Aquinas 1874, dist. 44, q. 1, a. 1, 296–297, and in general Thomas Aquinas 1876, IX, q. 6, a. 6, 589–590, or Thomas Aquinas 1959, Liber II, Lectio 1, §§ 224–225.

64 Thomas Aquinas 1894, Liber IV, c. 82 (691–693).

65 Thomas of Strasbourg 1564, Liber IV, dist. 44, q. 1, fol. 170vaf.

66 Richard of Middletown 1591, vol. 4, In quantum librum, dist. 44, a. 1, q. 1, 554a.

67 Suarez 1870, Disputatio 44, Sectio II, §§ 1–6, 745–749.

68 Petrus de Palude 1514, Distinctio 43, q. 1–4, fol. 196r–204r, Durandus a Sancto Porciano 2012, Distinctio 44, q. 1–3, 67–92.

identity extend? Were tiny particles enough to guarantee bodily continuity, or would it be possible for the body of a person to be brought together with characteristic elements of the earlier life in its proportions too? Did the resurrection occur as a single act, in a single instant, or was it a process, with a before and after and temporal duration? In these disputes, which were worked out with intense attention to detail, Pythagoras had nothing to contribute and he was no longer cited.

What is perhaps astonishing is that the discussion about metempsychosis had hardly any effect on the reputation that the Latin Pythagoras retained as a moralist down to the end of the Middle Ages. Not until the rediscovery of the Greek and especially the Neoplatonic tradition would the figure of Pythagoras be reviewed, now under different assumptions. The fact that later authors like Bulstrode Whitelocke, to name just one example, were once again able to bring up the transmigration of souls as an alternative to Christian eschatology and classic hylemorphism perhaps reveals that the discussion had not yet come to an end after all.⁶⁹

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⁶⁹ Whitelocke 1692.

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III Tropos tou biou

Aristoxenus and Timaeus on the Pythagorean Way of Life

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1 From Plato to the Lyceum

Notoriously, Plato was the first to mention the “Pythagorean way of life” (*Pythagorikos tropos tou biou*). In a passage of the tenth book of his *Republic* (600a8–e2), he contrasts Pythagoras with Homer, and credits him with an astonishing power of education. From the comparison we gather that *tropos tou biou* was integral to the teaching of the charismatic Sage, and that he passed it on to those who came after him, making his followers in all periods strikingly different from other people. Pythagoras’ relationships to his disciples were of a personal and private nature, but disciples came to be regarded as a group, as *hetairoi* forming a community of friends.¹

This impressive picture of the Pythagorean way of life drawn by Plato must have been well known in fourth-century Athens. Both the philosophical debate on the good life and how to pursue it, and the Peripatetic genre of philosophical biography certainly took it into account.² Theophrastus (D. L. 5.42), Heraclides of Pontus (fr. 22 Wehrli), Dicaearchus of Messana,³ Clearchus (fr. 37–62), and Strato (D. L. 5.59) wrote biographical works (mainly *Peri bion*), and Aristoxenus of Tarentum should be placed within this wider context. Aristoxenus dealt with the biographies of Socrates, Plato, and Archytas, and, as far as Pythagoras is concerned, he was especially interested in making him the symbol of a noble and most distinguished way of life. Aristoxenus contemporary Dicaearchus attempted to show that Pythagoras consecrated himself to the *vita activa*. Notably, Aristoxenus and Dicaearchus were not the only ones to be specially interested in the customs of the Pythagoreans. A certain Lycon of Iasus in Ionia wrote a book on the *Pythagoreios bios*,⁴ which Hermippus of Smyrna had among his sources.⁵ Now, another Lycon is known, who styled himself a Pythagorean and who was “approximately

1 For more on this, see, most recently, Horky 2013, 98–100.

2 See especially Jaeger 1967² (“On the Origin and Cycle of the Philosophic Ideal of Life,” 455–456).

3 On his contribution to philosophical biography, see White 2001.

4 57, 3 DK (Ath. 418e); see Burkert 1972, 204 and Zhmud 2012, 131–132.

5 In his biography of Aristotle, as it appears: Düring 1957, 466.

contemporary to Aristotle,”⁶ and bitterly criticized his extravagant way of life.⁷ There is no cogent reason to distinguish between the two. Even the interest in Pythagoras and the Pythagoreans shown by the fourth- / third-century Sicilian historian Timaeus of Tauromenium may have been partially shaped by the Athenian intellectual atmosphere, and especially by the ongoing debate on Pythagorean identity. As Christopher Baron has recently stressed, Timaeus cannot be regarded as an isolated scholar detached from contemporary society and must be placed within the Athenian intellectual environment of his age.⁸

2 Aristoxenus

It is commonly held that, whereas Aristoxenus took an apologetic stance toward Pythagoreanism, our “scientific” scholarship gives precedence to a critical and demystifying approach. And yet, we cannot simply set aside the picture of Pythagoras and the *Pythagoreioi* drawn by Aristoxenus.⁹ We have to read between the lines, and pay special attention to the internal logic of his apologetic discourse. Positivistic preconceptions are not well suited to grasp the paradigm of “philosophic” life that Aristoxenus aimed to construct by taking the Pythagoreans as an example.

Let us begin with the famous story of Damon and Phintias,¹⁰ an excellent illustration of the crucial role played by a number of main themes: noble-mindedness, friendship, love of freedom, and hatred of tyranny. In respect to noble-mindedness, the picture drawn in the story finds confirmation in the emphasis that Aristoxenus gives to the fortitude and intellectual strength of Xenophilus of Chalcis,¹¹ who had been one of his mentors,¹² as well as on the self-restraint quintessential to Archytas. Aristoxenus portrayed him as an example of control of the passions,¹³ relying on the testimony of Archytas’ close friend Spintharus, who had

6 Düring 1957, 374 (end of the fourth century); Burkert 1972, 204; see also Zhmud 2012, 131–132.

7 See 55, 4 DK (Aristocl. fr. 2.8 Chiesara [Euseb., *Praep. evang.* 15.2.8–10]). There is no evidence that he was acquainted with Aristoxenus’ biographical work on Pythagoras, and he may well have written before him.

8 Baron 2012, 89–90.

9 The best treatments are now Huffman 2008, 2012a, 2012b, and 2012c; Zhmud 2012b.

10 Damon and Phintias: Diod. Sic. 10.4.3; Porph. *VP* 59–61; Iamb. *VP* 233–237; cf. fr. 31 Wehrli² = IV 2 50 Kaiser. As Erwin Rohde brilliantly proved (his arguments are summarized and re-inforced in Burkert 1972, 98–99 n. 6) both Porphyry and Iamblichus independently drew on Nichomachus, who in his turn made use of Aristoxenus, and mentioned him.

11 Fr. 20b Wehrli² (Val. Max. 8.13 ext. 3: Xenophilus [...] omnis humani incommodi expers in summo perfectissimae doctrinae extinctus est).

12 Fr. 1 Wehrli² (*Suda* s. v. Ἀριστόξενοσ); note also fr. 25.

13 See Iamb. *VP* 197 = fr. 30 Wehrli² = IV 2 35 Kaiser: λέγεται δὲ καὶ τὰδε περὶ τῶν Πυθαγορείων, ὥς οὔτε οἰκέτην ἐκόλασεν οὐθὲς αὐτῶν ὑπὸ ὀργῆς ἐχόμενος, οὔτε τῶν ἐλευθέρων ἐνουθέτησέ τινα, ἀλλ’ ἀνέμενεν ἕκαστος τὴν τῆς διανοίας ἀποκατάστασιν (ἐκάλουν δὲ τὸ νοθετεῖν πεδαρτάν). ἐποιούντο γὰρ τὴν ἀναμονὴν σιωπῇ χρῶμενοι καὶ ἡσυχίᾳ. Σπίνθαρος γοῦν διηγέιτο πολλάκις περὶ Ἀρχύτου <τοῦ> Ταραντίνου, ὅτι διὰ χρόνου τινὸς εἰς ἀγρὸν ἀφικόμενος ἐκ στρατιᾶς νεωστὶ παραγεγονώς, ἦν ἐστρατεύσατο ἡ πόλις εἰς Μεσσηπίους, ὥς εἶδε τὸν τε ἐπίτροπον καὶ τοὺς ἄλλους οἰκέτας οὐκ εὖ τῶν περὶ τὴν

been Aristoxenus' teacher, and also his alleged father.¹⁴ One is led to think that no ancient reader of Aristoxenus' biographical works could help but compare those high-minded Pythagoreans to Plato, whose behaviour in Sicily Aristoxenus harshly criticized,¹⁵ and especially to Socrates, who is portrayed by Aristoxenus as an intemperate, irascible, and turbulent person.¹⁶

Damon and Phintias' story also highlights the personal bond that made the Pythagoreans feel they belonged to a community of *philoi*,¹⁷ although the two friends are not represented as living together, nor as members of a self-contained group. In this case, therefore, the Pythagorean way of life seems to be an individual habit, and not a communitarian practice. It is important to note, however, that Aristoxenus, when reporting the revolt against Pythagoras led by Cylon at Croton, takes for granted that a Pythagorean community did exist, whose members formed a closed group of persons of the highest moral standards. Yet, we do not have to see a contradiction here: quite probably Damon and Phintias' story is to be taken as suggesting that late fourth-century Pythagoreans no longer lived together, although they were able to retain a profound sense of collective belonging.

As for hatred of tyranny, the structure of the narrative itself, which in the end emphasizes the reversal of roles by which the tyrant asks the persecuted Pythagoreans to let him become one of the "friends," clearly shows that Aristoxenus aimed to emphasize the moral superiority of the Pythagoreans over the tyrant. Significantly, Aristoxenus made the same point more than once. Pythagoras himself fled his homeland when the tyrant came,¹⁸ and once settled in Italy he made

γεωργίαν ἐπιμελείας πεποιημένους, ἀλλὰ μεγάλη τινὶ κεχηρμένους ὀλιγωρίας ὑπερβολῇ, ὀργισθεὶς τε καὶ ἀγανακτήσας οὕτως ὥς ἂν ἐκεῖνος, εἶπεν, ὥς ἔοικεν, πρὸς τοὺς οἰκέτας, ὅτι εὐτυχοῦσιν, ὅτι αὐτοῖς ὠργισται. εἰ γὰρ μὴ τοῦτο συμβεβηκὸς ἦν, οὐκ ἂν ποτε αὐτοὺς ἀθῶους γενέσθαι τηλικαῦτα ἡμαρτηκότας. ἔφη δὲ λέγεσθαι καὶ περὶ Κλευνίου τοιαῦτά τινα. καὶ γὰρ ἐκεῖνον ἀναβάλλεσθαι πάσας νοθεύσεις τε καὶ κολάσεις εἰς τὴν τῆς διανοίας ἀποκατάστασιν. οἰκτῶν δὲ καὶ δακρῶν καὶ πάντων τῶν τοιούτων εἰργεσθαι τοὺς ἀνδρας, οὔτε δὲ κέρδος οὔτε ἐπιθυμίαν οὔτε ὀργὴν οὔτε φιλοτιμίαν οὔτε ἄλλο οὐδὲν τῶν τοιούτων αἴτιον γίνεσθαι διαφορᾶς, ἀλλὰ πάντας τοὺς Πυθαγορείους οὕτως ἔχειν πρὸς ἀλλήλους, ὥς ἂν πατὴρ σπουδαῖος πρὸς τέκνα σχοίη.

14 See frs. 30 (Archytas' friend) and 1 Wehrli² (here the *Suda* makes Spintharus the father and the teacher of Aristoxenus at the same time; according to Wehrli in his commentary [47], ancient biographical tradition construed Spintharus as Aristoxenus' father based on his well known role as expert musician and teacher).

15 Fr. 62 Wehrli².

16 Fr. 54a Wehrli² (Cyril. *Adv. Iul.* 6.185): λέγει δὲ ὁ Ἀριστόξενος, ἀφηγούμενος τὸν βίον τοῦ Σωκράτους, ἀκηκοέναι Σπινθάρου τὰ περὶ αὐτοῦ, ὃς ἦν εἰς τῶν τούτῳ ἐντυχόντων. τοῦτον λέγειν, ὅτι οὐ πολλοῖς αὐτὸς γε πιθανωτέροις ἐντετυχηκῶς εἶη, τοιαύτην εἶναι τὴν τε φωνὴν καὶ τὸ στόμα καὶ τὸ ἐπιφαινόμενον ἦθος, καὶ πρὸς πᾶσι δὲ τοῖς εἰρημένοις τὴν τοῦ εἶδους ιδιότητα. γίνεσθαι δέ που τοῦτο, ὅτε μὴ ὀργίζοιτο, ὅτε δὲ φλεχθεῖ ὑπὸ τοῦ πάθους τούτου, δεινὴν εἶναι τὴν ἀσχημοσύνην. οὐδενὸς γὰρ οὔτε ὀνόματος ἀποσχέσθαι οὔτε πράγματος. On Aristoxenus' *Life of Socrates*, see, most recently, Huffman 2012b.

17 On friendship as a "prominent feature in Aristoxenus' account of the Pythagorean way of life" see Zhmud 2012b, 231–232.

18 Fr. 16 Wehrli² = III 2 05 Kaiser (Porph. *VP* 9): γεγονότα δ' ἑτῶν τεσσαράκοντα, φησὶν ὁ Ἀριστόξενος, καὶ ὁρῶντα τὴν τοῦ Πολυκράτους τυραννίδα συντονωτέραν οὖσαν <ἢ>

the cities yearn for liberty thanks to his disciples, finally succeeding in setting free many cities in South Italy and Sicily.¹⁹ Moreover, Cylon, the stubborn opponent of Pythagoras, features in Aristoxenus' account as a brute fit for tyrannical rule.²⁰ Such an emphasis on love of liberty and opposition to tyranny was probably meant to prove wrong scholars such as Theopompus, who had been keen to suggest that Pythagoras' philosophy aimed to make tyrannical rule possible.²¹ At the same time, Aristoxenus was probably distancing himself from even earlier traditions depicting Pythagoras and his followers as potential tyrants.²² From a more general point of view, both the focus on liberty and on *philia* greatly emphasized the moral greatness of the Pythagoreans. Their life was shaped by love of *mathemata*, by friendship and self-control, hatred of tyranny, and defence of law and order. These must have been – I surmise – the customs (*ethe*) which the “last Pythagoreans” chose to keep, until they “nobly died out,” as Aristoxenus has it.²³

It is important to underline, however, that Aristoxenus seems to take for granted that Pythagorean identity and way of life were already interrelated at the time of Pythagoras. Let us briefly mention again Aristoxenus' account of the political crisis in Croton which led Pythagoras to leave the city. In this context, the enmity between Cylon and Pythagoras originated in Cylon's attempt to be associated with the followers of the Master, and, more precisely, “to participate in the Py-

ὥστε καλῶς ἔχειν ἐλευθέρῳ ἀνδρὶ τὴν ἐπιστατείαν τε καὶ δεσποτείαν [μὴ] ὑπομένειν, οὕτως δὴ τὴν εἰς Ἰταλίαν ἀπαρσιν ποιήσασθαι (sc. τὸν Πυθαγόραν).

- 19 Fr. 17 Wehrli² = III 2 10 Kaiser (Porph. VP 21; cf. Iamb. VP 33–34): ἄς δ' ἐπιδημήσας Ἰταλία τε καὶ Σικελία κατέλαβε πόλεις δεδουλωμένας ὑπ' ἀλλήλων, τὰς μὲν πολλῶν ἐτῶν τὰς δὲ νεωστί, φρονήματος ἐλευθερίου πλήσας διὰ τῶν ἐφ' ἐκάστης ἀκουστῶν αὐτοῦ ἡλευθέρωσε, Κρότωνα καὶ Σύβαριν καὶ Κατάνην καὶ Ῥήγιον καὶ Ἰμέραν καὶ Ἀκράγαντα καὶ Ταυρομένιον καὶ ἄλλας τινάς, αἷς καὶ νόμους ἔθετο διὰ Χαράωνδα τε τοῦ Καταναίου καὶ Ζαλεύκου τοῦ Λοκροῦ, δι' ὧν ἀξιοζήλωτοι τοῖς περιοϊκοῖς ἄχρι πολλοῦ γεγονόσιν. Σίμικος δ' ὁ Κεντοριπίνων τύραννος ἀκούσας αὐτοῦ τὴν τ' ἀρχὴν ἀπέθετο καὶ τῶν χρημάτων τὰ μὲν τῇ ἀδελφῇ τὰ δὲ τοῖς πολίταις ἔδωκεν.
- 20 Fr. 18 Wehrli² = IV 2 55 Kaiser (Iamb. VP 248): [...]αἱ δὲ αἰτίαι τῆς ἐπιβουλῆς πλείονες λέγονται, μία μὲν ὑπὸ τῶν Κυλωνεῶν λεγομένων ἀνδρῶν τοιάδε γενομένη. Κύλων, ἀνὴρ Κροτωνιάτης, γένει μὲν καὶ δόξῃ καὶ πλούτῳ πρωτεύων τῶν πολιτῶν, ἄλλως δὲ χαλεπός τις καὶ βίαιος καὶ θορυβώδης καὶ τυραννικός τὸ ἦθος, πᾶσαν προθυμίαν παρασχόμενος πρὸς τὸ κοινωνῆσαι τοῦ Πυθαγορείου βίου καὶ προσελθὼν πρὸς αὐτὸν τὸν Πυθαγόραν ἤδη πρεσβύτην ὄντα, ἀπεδοκιμάσθη διὰ τὰς προειρημένας αἰτίας.
- 21 Theopomp. FG⁺Hist 115 F 73: (Ath. 213–214 f) καὶ μετ' οὐ πολλὰς ἡμέρας τύραννον αὐτὸν ἀποδείξας ὁ φιλόσοφος (sc. ὁ Ἀθηνίων 87 F 36) καὶ τὸ τῶν Πυθαγορικῶν ἀναδείξας δόγμα <τὸ> περὶ τῆς ἐπιβουλῆς καὶ τί ἡβούλετο αὐτοῖς ἢ φιλοσοφία, ἣν ὁ καλὸς Πυθαγόρας εἰσηγήσατο, καθάπερ ἰστόρησε Θεόπομπος.
- 22 See on this especially Burkert 1972, 118–119 and nn. 55–58, succinctly discussing such traditions.
- 23 Iamb. VP 251 = fr. 18 Wehrli² = IV 2 55 Kaiser: ἀθροισθέντες δὲ εἰς τὸ Ῥήγιον ἐκεῖ διέτριβον μετ' ἀλλήλων. προϊόντος δὲ τοῦ χρόνου καὶ τῶν πολιτευμάτων ἐπὶ τὸ χεῖρον προβαίνοντων... ἦσαν δὲ οἱ σπουδαιότατοι Φάντων τε καὶ Ἐχεκράτης καὶ Πολύμναστος καὶ Διοκλῆς Φλιάσιοι, Ξερόφιλος δὲ Χαλκιδεὺς τῶν ἀπὸ Θράκης Χαλκιδέων. ἐφύλαξαν μὲν οὖν τὰ ἐξ ἀρχῆς ἦθη καὶ τὰ μαθήματα, καίτοι ἐκλείπουσιν τῆς αἰρέσεως, ἕως εὐγενῶς ἠφρανίσθησαν. ταῦτα μὲν οὖν Ἀριστόξενος δηγεῖται. On this passage Prontera 1976–1977 is still important.

thagorean way of life.”²⁴ Needless to say, we have here Iamblichus’, and not Aristoxenus’ *ipsissima verba*, but Aristoxenus is quoted at the end of the account, and the narrative heavily depends on him. There is no reason to assume that Aristoxenus did not mention at all “the Pythagorean way of life.”²⁵

To sum up thus far, we have seen that a closer look at Aristoxenus’ apologetic approach to Pythagoreanism helps us understand the ways in which he succeeds in constructing and promoting an exemplary Pythagorean identity. In addition to that, it is to be stressed that such an identity is profoundly shaped by the ethical values expounded in Aristoxenus’ “Pythagorean Precepts.”²⁶ There is no doubt that we have here a strong emphasis on a rational and ethicized Pythagorean way of life lived by people of the highest intellectual and moral standards.

One might wonder whether Aristoxenus was actually trying to tackle the problem of the true nature of the Pythagorean lifestyle. In other words, was he implicitly saying that genuine Pythagoreans had nothing to do with asceticism, superstitious abstinences, and ritualistic taboos? And was he also pointing out that those *Pythagoristai* put on stage in Athens by late fourth-century comic poets were not related to the Pythagoreans? An affirmative answer to this question should be followed by a more detailed evaluation. On the one hand, Aristoxenus undeniably depicted the customs of the Pythagoreans as profoundly different from those of the low-class, dirty tatterdemalions ridiculed by comic poets, and on the other he insisted that the “genuine” Pythagoreans had already died out. Now, if Aristoxenus is right, the Pythagorean identity of the *Pythagoristai* becomes problematic, and one would even be led to think that they were no more than a theatrical fiction.

It is important to note, however, that shabby poverty had already been associated with a Pythagorean identity in the first half of the fourth century, as Aeschines’ of Sphettus *Telauges* shows.²⁷ In this dialogue the alleged son of Pythagoras is depicted as a sordid beggar wearing a cloak borrowed from a clothes’ cleaner and girt about with a goatskin.²⁸ The same seems to hold true of Diodorus of Aspendus,²⁹ the indigent philosopher who lived in Athens in the fourth century. He was depicted by the contemporary musician Stratonicus and the poet Archestratus of Gela, as well as by the second-century historian Sosicrates of Rhodes, as a dirty ragamuffin clothed in skins, eating vegetarian and “Pythagoreanizing.”³⁰ The ascetic type, then, may well not have been simply constructed

24 Προθυμίαν παρασχόμενος πρὸς τὸ κοινωνῆσαι τοῦ Πυθαγορείου βίου; see Aristox., fr. 18 Wehrli², 13, 2 = IV 2 55 Kaiser (Iamb. VP 248).

25 On Aristoxenus and Pythagoreans, see, most recently, Zhmud 2012b.

26 On the “Precepts,” see most importantly Huffman 2008.

27 On the *Telauges*, Dittmar 1912, 213–244 is still essential reading.

28 See fr. 41 Dittmar (Ath. 220a) = SSR VI A 84.

29 Diodorus is discussed in Burkert 1972, 202–204; Bollansée 1999, 286–289; Zhmud 2012, 132–134; 182–183, and Baron 2012, 156–159.

30 Stratonicus (see Tim. FGrH 566 F 16 = Ath. 4.163e–f and F 737 *SupplHell*) must have died not later than 350 BCE (see Burkert 1972, 202–203, discussed, and not conclusively rejected by

by comic poets. Diodorus was most probably a genuine ascetic, although his Pythagorean identity was debated. Stratoniceus' and Arcestratus' mentions of him were undoubtedly meant to mock his lifestyle, and a few decades later Timaeus, too, commented on the striking appearance of Diodorus. Timaeus emphasized that he "was affecting to be associated" with Pythagoreans, probably assuming that he was not a "genuine" Pythagorean.³¹ As we can safely infer from the stance taken by Aristoxenus, the real nature of Pythagorean identity was controversial in late fourth- and early third-century Athens, and Timaeus, too, must have taken sides. The point at issue is made clear by Sosicrates in his account of Diodorus' lifestyle, where, based on Aristoxenus, he explicitly contrasts it with the "noble" and healthy customs of the real Pythagoreans, who "wore shining bright clothes, bathed and anointed themselves, and had their hair cut according to the fashion."³² Thus, Timaeus was taking Aristoxenus' side, implicitly saying that a real Pythagorean could not be an ascetic.³³

The above discussion should lead us to conclude that there must have been in fourth-century Athenian society ascetics claiming to be Pythagoreans. Though perhaps not the Pythagorean *akousmatikoi* Walter Burkert was looking for, they are possibly to be placed at the intersection of "Pythagoreanizing" and "proto-Cynic" identities. As a consequence, the so-called *Pythagoristai* are not necessarily to be taken as comic constructions of social destitution.³⁴ Social reality may well lurk behind theatrical caricature, and the evidence discussed above seems to suggest that "Pythagoreanizing" ascetics did really exist in fourth-century Athens. This obviously has a bearing on our understanding of Aristoxenus: as disputatious as he may have been, it would have been nonsensical to take seriously mere comic characters. Arguably, Aristoxenus aimed to undermine radically any claim made in recent times to a Pythagorean identity, both by depicting the noble

Zhmud 2012, 133 n. 130), and Diodorus' mention in Arcestratus' *Hedypatheia* (fr. 23.18–19 Brandt = F 24 Olson-Sens [Ath. 163d–e]) does not necessarily imply a later date for Stratoniceus. As for Sosicrates, see FHG fr. 20 (IV 503) = F 15 Giannattasio Andria.

31 Tim. *FGrH* 566 F 16 = Ath. IV 163e–f: Τίμαιος δ' ὁ Ταυρομενίτης ἐν τῇ ἐνάτῃ τῶν Ἱστοριῶν περὶ αὐτοῦ γράφει οὕτως: «Διοδώρου τοῦ τὸ γένος Ἀσπενδίου τὴν ἐξηλλαγμένην εἰσαγαγόντος κατασκευὴν καὶ τοῖς Πυθαγορείοις πεπλησιακέναι προσποιηθέντος, πρὸς ὃν ἐπιστέλλων ὁ Στρατόνικος ἐκέλευσε τὸν ἀπαίροντα τὸ ῥηθὲν ἀπαγγεῖλαι 'τῷ περὶ θηροπέπλου μανίας ὕβρεώς τε περιστάσιμον / στοᾶν ἔχοντι Πυθαγόρου πελάτᾳ'».

32 Fr. 15 Giannattasio Andria (Ath. 163–164 f): Σωσικράτης δ' ἐν τρίτῳ Φιλοσόφων διαδοχῆς βαθεὶ πάγωνι χρῆσασθαι τὸν Διόδωρον ἱστορεῖ, καὶ τρίβωνα ἀναλαβεῖν, κόμην τεφορῆσαι, κατὰ τινα τύπον τὴν ἐπιτήδευσιν ταύτην προσαγαγόντα, τῶν πρὸ αὐτοῦ Πυθαγορικῶν λαμπρῶν τε ἐσθῆτι ἀμφιεννυμένων, καὶ λουτροῖς καὶ ἀλείμμασι, κουρᾷ τε τῇ συνήθει χρωμένων (for the translation of the last sentence quoted in the text, see Burkert 1972, 202).

33 For a discussion of the reason why Timaeus participated in the debate on Pythagorean identity, see now Baron 2012, 159–160, who plausibly suspects that for him "The greatest intellectual and spiritual figure of Magna Graecia [scil. Pythagoras] would certainly not have produced a poor, dirty, shaggy-haired vegetarian" (160).

34 In Leonid Zhmud's opinion (Zhmud 2012a, 181; Zhmud 2012b, 228 n. 16) "the character of the Pythagorist... is to be found only on the Athenian stage, to which in reality it owes its appearance."

way of life of the Pythagoreans of old as profoundly different from the lifestyle of the ascetics, and insisting that the “last Pythagoreans” had died out. Quite importantly, according to Aristoxenus Pythagorean customs had not changed at all for centuries, from Pythagoras to the last Pythagoreans he met. In the light of the above, one should assume that Aristoxenus not only refused to recognize fourth-century ascetics as Pythagoreans, but also denied the existence of ascetic trends in the history of South Italian Pythagoreanism. Indeed, the picture Aristoxenus drew of Pythagoras’ and his disciples’ daily life makes it reasonable to think that he was acquainted with customs shaped by ascetic practices and religious taboos, but that he wanted to place Pythagoreanism at the greatest distance from them.³⁵

The same holds true – it appears – for the taboo on beans and abstinence from meat. As is well known, according to Aristoxenus Pythagoras was especially fond of beans.³⁶ He is the only ancient author to say so, whereas the taboo, which is attested in Orphic literature and in Empedocles,³⁷ and was practised in the Eleusinian mysteries,³⁸ is attributed to Pythagoras by Aristotle, Heraclides Ponticus, Neanthes, and Callimachus.³⁹ Aristoxenus is evidently contradicting a well established tradition linking this taboo to Pythagoras, and he cannot easily be acquitted of pure invention.⁴⁰ His polemical stance, probably toward Aristotle especially, is beyond doubt here, but he must have had more profound reasons. One may suppose that Aristoxenus intended to deny the most notorious of the

35 The everyday life of the Pythagoreans is famously recounted in Iamblichus’ *Vita Pythagorica*, 96–100, which derives from Nichomachus of Gerasa, who for his part depends on Aristoxenus (cp. *VP* 97, 56, 24–25 Deubner-Klein with Aristox. fr. 27; 100, 57, 23–58, 11 with frs. 33–34; and 98, 57, 12–13 with frs. 28, 29a). Iamblichus, however, heavily manipulated Nicomachus’ account, retouching the picture and adding details (as for instance the after-dinner ‘reading’) which certainly were meant to call attention to “the similarity to a monastic rule” (Burkert 1982, 16 and 188 nn. 75–76, also recalling the account of the daily life of the Essenes in Joseph. *BJ* 2, 128–133); for the study of parallels between monastic life and the Pythagorean way of life Festugière 1937 is still enlightening; see also Bremmer 1992. The picture painted by Iamblichus is to be taken as an integral part of his anti-Christian tendency, which “auch als paganer Gegenentwurf gegen das aufblühende Mönchstum und die christliche Lebensführung überhaupt gelesen werden kann” (Riedweg 2002, 48, aptly quoted by J. N. Bremmer in “Richard Reitzenstein, Pythagoras and the *Life of Antony*” (this volume, 227–245).

36 Fr. 25 Wehrli² (Gell. *NA* 4.11): Sed Aristoxenus musicus, vir litterarum veterum diligentissimus, Aristotelis philosophi auditor, in libro, quem de Pythagora reliquit, nullo saepius legumento Pythagoram dicit usum quam fabis, quoniam is cibus et subduceret sensim alvum et levigaret. Verba ipsi Aristoxeni subscripsi: Πυθαγόρας δὲ τῶν ὀσπρίων μάλιστα τὸν κύαμον ἔδοκίμασεν. λειάντικόν τε γὰρ εἶναι καὶ διαχωρητικόν, διὸ καὶ μάλιστα κέχρηται αὐτῷ.

37 See, respectively, *Orph. Frag.* 291 Bernabé and 31 B 141 DK.

38 Paus. 1.37.4.

39 Arist. fr. 195 Rose = D. L. 8.34; Heraclid. Pont. fr. 41 Wehrli²; Neanth. *FGH* 84 F 31; Callim. fr. 553 Pfeiffer; more ancient evidence and the relevant modern literature are to be found in Burkert 1972, 183 n. 124. Explanations of the ban on eating beans are discussed in Burkert 1972, 183–185 and Zhmud 2012a, 237–238.

40 Pace Burkert 1972, 184, who surmises that beans may have been eaten in a ritual meal.

Pythagorean taboos in order to reinforce the overall plausibility of his account of the *bios Pythagorikos*.

As regards Pythagorean alleged vegetarianism, the contradictory evidence at our disposal has probably to be taken as suggesting that fifth-century Pythagoreans did not have the same dietary habits, and were not all committed to strict vegetarianism, although different individuals and different circles may have observed some taboos and practised some abstinences. With regard to animal flesh, it is reasonable to assume that Pythagoreans ate some animals only (perhaps the sacrificial ones), and abstained from eating some specific animals and some specific organs.⁴¹ However, how “rational” their dietary restrictions were must remain an open question, and we cannot rule out that ritual and cult practice really did lie behind them. There must thus have been a kernel of truth in what Aristoxenus said about Pythagoras not eating plow oxen and rams, even though Pythagoras’ alleged predilection for young kids, sucking pigs, and cockerels sounds somehow paradoxical, as it suggests a certain degree of gastronomic luxury.⁴² Aristoxenus probably intended to contrast the noble Master of old with the sordid vegetarians of his age, as well as projecting an image of Pythagoras meant to deritualize completely the way of life he had been teaching.

So far, I have tried to argue that Aristoxenus must be credited with a coherent attempt to construct a paradigm of “philosophical” life by taking the Pythagoreans as an example, and that polemic and apologetic were no more than a means to strengthen such a construct. From a historical point of view, however, it is important to remark that Aristoxenus’ contentious arguments should be taken as implying not only different contemporary views, but also more ancient realities, including social practices, styles of life, ways of thought. On this approach, Aristoxenus’ polemical stance is telling, and indirectly gives us an idea not only of the changing Pythagorean identities in fifth-century Southern Italy, but also of the complexities of the knowledge transfer processes involved.

3 Timaeus of Tauromenium

Now, let us attend to the evidence of the historian Timaeus.⁴³ He had no knowledge of Pythagoreanism from the inside, and was not involved in polemic, but his contribution to its understanding can be compared to that of Aristoxenus.⁴⁴

Most notably, Timaeus too seems to have developed an interest in the issue of Pythagorean identity. His readiness to distance himself from Diodorus of As-

41 On the problem of Pythagorean “vegetarianism,” see Burkert 1972, 180–183 and Zhmud 2012, 234–237.

42 See fr. 25 (note also fr. 28). On Pythagoras’ dietary habits according to Aristoxenus, see, most recently, Huffman 2012c, who is inclined to see his account as essentially accurate.

43 On Timaeus, see, most recently Baron 2012.

44 On historical information on Pythagoreanism provided by Aristoxenus and Timaeus, see especially von Fritz 1940; Burkert 1972, 103–105 (Timaeus); Giangiulio 1991, 67–82; Zhmud 2012a, 99–100; Horky 2013, 106–114.

pendus' claim to be a Pythagorean most strongly suggests such an interest. In addition to this, the focus on the distinctive nature of Pythagorean life that we find in Iamblichus' account of the revolts in Croton, which in part goes back to Timaeus himself, possibly implies that Timaeus also paid attention to the customs of the sixth- and fifth-century South Italian Pythagoreans. The same holds true, with even greater plausibility, for Timaeus' treatment of the proverbial saying *koina ta philon* ("Friends hold things in common").⁴⁵ A close reading of testimonia and passages parallel to Fragment 13 shows that Timaeus carefully discussed the meaning of this saying and related it to the common property of the members of Pythagorean society in Croton.⁴⁶ As Christopher Baron acutely remarks, "the linking of an explanation for the proverb and admission to Pythagorean Society already existed in Timaeus' text."⁴⁷ Now, all four testimonia where Timaeus is cited "explicitly note the location of the proverb's first use,"⁴⁸ but this does not necessarily imply, as Baron thinks, that Timaeus was using his knowledge of Pythagorean Society simply to argue that Pythagoras himself originated the saying. Indeed, the detailed information given by Timaeus suggests that his main interest was on Pythagorean Society, not on the saying as such. Timaeus must have mentioned the proverb in the context of his account of the rules of admission into the Society and of the common life of the disciples, at the same time also making a point against the alternative version offered by Clearchus, in which the saying is attributed to an oracular response of Delphic Apollo.⁴⁹ The opposite view, that Timaeus discussed in detail the internal organization of Pythagorean Society solely in order to explain the meaning of the proverb, seems to me to be almost implausible. Timaeus does know of common property in Pythagorean Society, and refers to it as an *explanans*, not an *explanandum*. There is no cogent reason, therefore, to assume that his account of the process of admission to the society was devised for the purpose of contextualizing an old proverbial saying within Pythagorean customs.

In the light of the above, one is led to think that Timaeus was aware of some rules of admission of Pythagoras' *hetairoi* into an organized society of disciples,

45 Tim. F 13a = Schol. T Plat., *Phaedr.* 279c Greene: κοινὰ τὰ τῶν φίλων· ἐπὶ τῶν εὐ μεταδότων. φασὶ δὲ λεχθῆναι πρῶτον τὴν παροιμίαν περὶ τὴν Μεγάλῃν Ἑλλάδα, καθ' οὓς χρόνους ὁ Πυθαγόρας ἔπειθε τοὺς αὐτὴν κατοικοῦντας ἀδιανέμητα πάντα κεκτῆσθαι. φησὶ γοῦν ὁ Τίμαιος ἐν τῇ θ οὕτω· «προσιόντων δ' οὖν αὐτῶ τῶν νεωτέρων καὶ βουλομένων συνδιατρίβειν, οὐκ εὐθὺς συνεχώρησεν, ἀλλ' ἔφη δεῖν καὶ τὰς οὐσίας κοινὰς εἶναι τῶν ἐντυχανόντων.» εἶτα μετὰ πολλὰ φησί· «καὶ δι' ἐκείνους πρῶτον ῥηθῆναι κατὰ τὴν Ἰταλίαν ὅτι 'κοινὰ τὰ τῶν φίλων'». ἐμνήσθη δὲ ταύτης καὶ Ἀριστοτέλης ἐν τῷ θ τῶν Ἠθικῶν (EN 8.11, 1159b31). Κλέαρχος δὲ φησιν ὑπὸ Χαλκιδέων τῶν ἐν Εὐβοίᾳ πεμφορῆναι δῶρα εἰς Δελφοὺς Ἀπόλλωνι καὶ Ἀρτέμιδι· τῶν δὲ Δελφῶν μαντευσόμενων, εἰ ἐξ ἴσης τὴν ἀνάθεσιν ποιήσονται, ἔφησεν ὁ θεὸς 'κοινὰ τὰ τῶν φίλων'. καὶ Μένανδρος ἐν Ἀδελφοῖς β (III 6, 9 K).

46 For a detailed discussion, see Baron 2012, 144–147, 150–151.

47 Baron 2012, 150.

48 Ibid., 150.

49 Clearch., fr. 72 Wehrli = Schol. T Plat., *Phaedr.* 279c (for the text, see n. 25 *supra*).

and had some information about the relationship between the disciples and the Master, and their customs. On this subject the evidence provided by Iamblichus in paragraphs 71–72 of his *Pythagorean Life* is especially relevant, because the wording in the first sentence of 71, when compared to parallel passages, shows that the beginning of Iamblichus' account strictly follows Timaeus' original text.⁵⁰ As a consequence, we should assume that according to Timaeus young people willing to be admitted to the community of Pythagoras' disciples had to pass an examination.⁵¹ Nonetheless, we should not take for granted that all the details of the internal organization of Pythagorean society given in this long passage stem directly from Timaeus.⁵² Traditional source criticism has not succeeded in unravelling its complexities, especially due to the cut-and-paste method of Iamblichus, and of Apollonius before him. Even more importantly, both Apollonius and Iamblichus had apologetic and ideological purposes, and paragraph 72 prompts every reader to suppose that Iamblichus here manipulated the source(s) at his disposal. There is, it must be admitted, a notable overlap between Iamblichus and

50 What is said at the beginning of § 71 of Iamblichus' *Vita Pythagorica* with regard to the admission of young people into the society of disciples (40,15–18 Deubner-Klein): Παρεσκευασμένων δὲ αὐτῶ οὕτως εἰς τὴν παιδείαν τῶν ὁμιλητῶν, προσιόντων τῶν νεωτέρων καὶ βουλομένων συνδιατροῖβειν οὐκ εὐθὺς συνεχώρει, μέχρις ἂν αὐτῶν τὴν δοκιμασίαν καὶ τὴν κρίσιν ποιήσῃται is to be compared with the literal quotation from Timaeus' text provided by *Schol. T Plat. Phaedr.* 279c: φησὶ γοῦν ὁ Τίμαιος ἐν τῇ θ οὕτω· «προσιόντων δ' οὖν αὐτῶ τῶν νεωτέρων καὶ βουλομένων συνδιατροῖβειν...». The coincidence is striking and compels us to ascribe to Timaeus the very beginning of Iamblichus § 71.

51 Baron's doubts on whether Timaeus dealt with the *dokimasia* of the disciples (Baron 2012, 149–150) seem to me to be misplaced, as the textual resemblance between Iamb. 71 and the Platonic *scholium* makes it difficult to believe that Timaeus' treatment of *dokimasia* was "re-worked into something new" (Baron 2012, 150) by a later source of Iamblichus.

52 Iamb. VP 71–72: Παρεσκευασμένων δὲ αὐτῶ οὕτως εἰς τὴν παιδείαν τῶν ὁμιλητῶν, προσιόντων τῶν νεωτέρων καὶ βουλομένων συνδιατροῖβειν οὐκ εὐθὺς συνεχώρει, μέχρις ἂν αὐτῶν τὴν δοκιμασίαν καὶ τὴν κρίσιν ποιήσῃται, πρῶτον μὲν πυκνθανόμενος πῶς τοῖς γονεῦσι καὶ τοῖς οἰκείοις τοῖς λοιποῖς πάρεσιν ὠμιληκότες, ἔπειτα θεωρῶν αὐτῶν τοὺς τε γέλωτας τοὺς ἀκαίρους καὶ τὴν σιωπὴν καὶ τὴν λαλιὰν παρὰ τὸ δέον, ἔτι δὲ τὰς ἐπιθυμίας τίνες εἰσὶ καὶ τοὺς γνωρίμους οἷς ἔχρῳντο καὶ τὴν πρὸς τούτους ὁμιλίαν καὶ πρὸς τίνι μάλιστα τὴν ἡμέραν σχολάζουσι καὶ τὴν χαρὰν καὶ τὴν λύπην ἐπὶ τίσι τυγχάνουσι ποιούμενοι. προσθεώρει δὲ καὶ τὸ εἶδος καὶ τὴν πορείαν καὶ τὴν ὅλην τοῦ σώματος κίνησιν, τοῖς τε τῆς φύσεως γνωρίσμασι φυσιογνωμονῶν αὐτοὺς σημεῖα τὰ φανερά ἔποιεῖτο τῶν ἀφανῶν ἡθῶν ἐν τῇ ψυχῇ. καὶ ὄντινα δοκιμάσειεν οὕτως, ἐφίει τοιῶν ἐτῶν ὑπερορᾶσθαι, δοκιμάζων πῶς ἔχει βεβαιότητος καὶ ἀληθινῆς φιλομαθείας, καὶ εἰ πρὸς δόξαν ἱκανῶς παρεσκεύασται ὥστε καταφρονεῖν τιμῆς. μετὰ δὲ τούτῳ τοῖς προσιοῦσι προσέτατε σιωπὴν πενταετῇ, ἀποπειρώμενος πῶς ἐγκρατείας ἔχουσιν, ὡς χαλεπώτερον τῶν ἄλλων ἐγκρατευμάτων τούτου, τὸ γλώσσης κρατεῖν, καθὰ καὶ ὑπὸ τῶν τὰ μυστήρια νομοθετησάντων ἐμφαίνεται ἡμῖν. ἐν δὴ τῷ χρόνῳ τούτῳ τὰ μὲν ἐκάστου ὑπάρχοντα, τούτεστιν αἱ οὐσίαι, ἐκοινοῦντο, διδόμενα τοῖς ἀποδεδειγμένοις εἰς τούτο γνωρίμοις, οἵπερ ἐκαλύντο πολιτικοί, καὶ οἰκονομικοί τινες καὶ νομοθετικοί ὄντες. αὐτοὶ δὲ εἰ μὲν ἄξιοι ἐφαίνοντο τοῦ μετασχεῖν δογμάτων, ἐκ τε βίου καὶ τῆς ἄλλης ἐπιεικειᾶς κριθέντες, μετὰ τὴν πενταετῇ σιωπῇ ἐσωτερικοὶ λοιπὸν ἐγίνοντο καὶ ἐντὸς συνδόνος ἐπήκουον τοῦ Πυθαγόρου μετὰ τοῦ καὶ βλέπειν αὐτόν· πρὸ τούτου δὲ ἐκτὸς αὐτῆς καὶ μηδέποτε αὐτῶ ἐνορῶντες μετέιχον τῶν λόγων διὰ ψιλῆς ἀκοῆς, ἐν πολλῷ χρόνῳ διδόντες βάσανον τῶν οἰκείων ἡθῶν.

a passage of Diogenes Laertius where Timaeus is cited in relation to the saying “Friends hold things in common.”⁵³ In Iamblichus 72 Pythagoras’ followers are allowed to see the Master for the first time and become *esoterikoi* after a five-year silence,⁵⁴ whereas Diogenes, for his part, reports that new members could not see Pythagoras and had to wait five years to pass the examination. The resemblance between the two passages is strong, but Diogenes does not strictly speak of a five-year silence, and seems to refer to a period during which the disciples were not allowed to meet Pythagoras in person. If so, the five-year silence was not mentioned by Timaeus. Indeed, rules such as the three-year trial period, or the five years of silence,⁵⁵ and the distinction of *esoterikoi* and *exoterikoi*, as well as the role played by the *oikonomikoi* in the administration of properties, either recall much later prescriptions and customs, or presuppose technical words, notably *esoterikoi*, that are attested only in the Roman imperial age.⁵⁶ Thus, one is inevitably led to assume that Iamblichus’ account, taken as a whole freely expanded what was said by Apollonius, based indirectly on Timaeus among other sources.

It is important here to call attention to two other fragments of Timaeus (F 17 and F 131 Jacoby), where the focus seems to be on the life of Pythagorean women. The first (F17) recalls the different names the women bore in each stage of their lives,⁵⁷ while the second (F 131) reports that Pythagoras’ daughter led the girls of Croton while still a girl, and the women when she became a woman, adding that the citizens made the house of Pythagoras’ family into a temple of Demeter.⁵⁸ The historian was evidently investigating the manners and customs of the Pythagorean women, possibly based on an erudite work by Philochorus.⁵⁹ Again, the

53 D. L. 8.10: εἰπέ τε πρῶτος, ὥς φησι Τίμαιος (FGrH 566 F 13b), κοινὰ τὰ φίλων εἶναι καὶ φιλίαν ἰσότητα. καὶ αὐτοῦ οἱ μαθηταὶ κατετίθεντο τὰς οὐσίας εἰς ἓν ποιούμενοι. πενταετίαν θ’ ἡσύχαζον, μόνον τῶν λόγων κατακούοντες καὶ οὐδέπω Πυθαγόραν ὁρῶντες εἰς ὃ δοκιμασθεῖεν· τούντεῦθεν δ’ ἐγίνοντο τῆς οἰκίας αὐτοῦ καὶ τῆς ὀψεως μετείχον.

54 See 41,14–18 Deubner-Klein.

55 Zhmud 2012, 163 has a good discussion of this topic.

56 It seems to be a second-third century AD word (note Clem. Al. *Strom.* 5.9.58, 3; Luc. *Vit. Auct.* 26; Hippol. *Haer.* 1.2, 4.17), and nothing suggests that Timaeus used it (Horky 2013, 87–88 n. 6 speculates that the term probably derives from Timaeus, adding that he “cannot be absolutely certain”). Iamblichus repeatedly depicts the Pythagoreans as Christian monks: see, besides VP 96–100 (*supra*, n. 35), also 29, 17, 10 (Pythagoreans styled as *koinobious* [!]), and 253, 136, 1–3 Deubner-Klein (Pythagoreans *monazontes en tais eremiais*). On the link between Pythagoreans and Christian monks made in late antique times, see Burkert 1982, 13 and Bremmer 1992, 205–206.

57 Tim. FGrHist 566 F 17 (D. L. 8.11): Τίμαιός τέ φησιν ἐν δεκάτῳ Ἱστοριῶν λέγειν αὐτὸν (scil. Πυθαγόραν) τὰς συνοικούσας ἀνδράσι θεῶν ἔχειν ὀνόματα, Κόρας, Νύμφας, εἶτα μητέρας <καὶ μαίας> καλουμένας.

58 F 131 (Porphy. VP 4): Τίμαιος δ’ ἱστορεῖ τὴν Πυθαγόρου θυγατέρα καὶ παρθένον οὖσαν ἡγεῖσθαι τῶν παρθένων ἐν Κρότωνι, καὶ γυναῖκα τῶν γυναικῶν· τὴν δ’ οἰκίαν Δήμητρος ἱερὸν ποιῆσαι τοὺς Κροτωνιάτας, τὸν δὲ στενωπὸν καλεῖν μουσεῖον. For a perceptive treatment of the fragment, see, most recently, Baron 2012, 163–164.

59 See Philoch. FGrH 328 T 1 [*Suda*, s. v.], where a Συναγωγὴ ἡρώιδων ἦτοι Πυθαγορείων γυναικῶν is mentioned.

broader context must have been a more or less comprehensive treatment of the customs of the Pythagoreans. On the other hand, a detailed local knowledge is to be presupposed here, as well as elsewhere in the evidence which goes back to Timaeus.

The main problem with the information provided by Timaeus on Pythagoras and the Pythagoreans is the original form of his treatment of the subject. Quite recently Christopher Baron has argued that Timaeus' remarks are found in limited contexts and scattered references only, and that no self-contained narrative about Pythagoras and his school should be credited to him.⁶⁰ The historian, in other words, wrote no book-length Pythagorean excursus, as Jacoby notoriously maintained.⁶¹

Baron, however, tends to take into account only those textual scraps we conventionally call "fragments." Such an approach is undeniably sound, but, given the scarcity of the fragments at our disposal, it is bound to give us no more than a glimpse of the topics and themes that interested Timaeus in Pythagoras and Pythagoreanism. From this point of view neither a maximalist approach ("an excursus devoted to Pythagoreanism"), nor a minimalist one ("a bunch of scattered references") seems appropriate. Most probably Timaeus did not write in terms of "Pythagoreanism." And yet, he must have perceived the historical and cultural importance of the role played by Pythagoras and his followers within the South Italian cities, and noted the novelty and impact of those communities of "friends." From later sources, which surely relied on Timaeus, though without either quoting him literally, or, probably, limiting themselves to his account, we gather that he recounted the biography of Pythagoras, reported the public speeches delivered by him in Croton – and probably did so much more succinctly than (Apollonius-)Iamblichus –, and dwelt at length on the mid-fifth century political turmoil that led to the expulsion of the Pythagoreans. Moreover, as we have seen, Timaeus was interested in Pythagorean society and investigated the customs of its members and of the Pythagorean women. There are reasons to believe that such an interest in Pythagorean matters was an integral part of Timaeus' research on the history of Magna Graecia and Sicily. Although nineteenth-century *Quellenkunde* attributed too much to Timaeus, to the point that now a thorough re-assessment of the scope of the "Timaeian tradition" is much needed, we should be very careful not to let the pendulum swing too far in the opposite direction.

⁶⁰ Baron 2012, 168.

⁶¹ See *FGrH III b Kommentar zu nr. 297–607 [Text]*, 551, 5–6 ("hat T. in einem excursus, der bis ins 10. buch reicht, über Pythagoras' leben, lehre, und wirksamkeit gehandelt"), and 552, 21–24 ("Wir... wissen nicht ob T. den grossen excurs an die zerstörung von Sybaris ca. 510 anknüpft hat bezw. was er von dem 'reich' von Kroton erzählt hat").

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Pythagorean *Askesis* in Timycha of Sparta and Theano of Croton

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This paper will first consider *askesis* in the two Pythagoreans Timycha and Theano; will then examine it more broadly as a concept; and finally will draw conclusions about a distinctively Pythagorean *askesis*.

1 Exceptionality and daily life: Timycha and Theano

A) Timycha

Both Timycha¹ and Theano² are listed in the Aristoxenic catalogue of Pythagoreans.³ Although neither is mentioned in the works of Plato, in Proclus’ *Commentary on Plato’s Republic*, too, on the topic of the need for a common *paideia*, Timycha and Theano are both cited as a model of excellence and proof that the acquisition of virtue is unrelated to gender, and, further, they are mentioned alongside the model of Diotima.⁴

To whom are these arguments attributed? Did the Platonic tradition of travels in Sicily encounter and spread the “facts” relating to Timycha? Or is this merely a later hypothesis?

In *The Pythagorean Life* by Iamblichus, Timycha certainly has the role of model of *andreia*⁵ and *sophrosyne*.⁶ Together with Myllias the philosopher, she plays this

1 Iamb. *VP* 192–195; 214; 267.

2 See Theano A 1 (Iamb. *VP* 267); A 2 and 7 (Suida s. v. *Theano* 1 and 2); A 4 (D. L. 8.42–43); A 6 (Anon. Phot. 438b31); A 14 (Luc. *Im.* 18–19); A 17 (Clem. Al. *Strom.* 1.80.4); B 2 (Clem. Al. *Strom.* 4.7.44.2); C 1 (Iamb. *VP* 132) and 3 (Stob. 4.32). The citation of the fragments of Pythagorean philosophy quoted in the text follows the numbering of the edition of the female Pythagorean writings by Claudia Montepaone, with translation and notes by Ida Brancaccio. In particular see Montepaone 2011, 7–8.

3 Iamb. *VP* 267 (in the edition by Giangiulio 2000). On the catalogue see Thesleff 1965; Waithe 1987; Montepaone 2011; Mele 2013, 133–144; Pomeroy 2013, in particular 1, 5, 10.

4 See Procl. in *Remp.* 8.248 (the reference is to Plat. *Tim.* 42b5 ff.). In Lucian, too, the figure of Theano is mentioned alongside that of Diotima. See Theano A 14 (Luc. *Im.* 18–19). Cf. Stavru 2011, 174 ff.

5 On the value of *andreia* see Iamb. *VP* 214; Phintys B 1 (1) (Stob. 4.23.61); Perictione B 1 (1) (Stob. 4.28.19).

6 For *sophrosyne* / *sophrosyna* in the female Pythagorean texts, in its linguistic variation (*sophron*, *phronesis* / *phronasis*, *phronon*) and in different shades of meaning cp. Theano D 1 (1) “to Euboule” (Thesleff 195, 22–196, 34); D 3 “to Euridice” (Thesleff, 197, 12–24); D 5 (3) “to Nic-

role in their joint opposition to Dionysius of Syracuse. This explains the presence of “Timycha, wife of Myllias of Croton,” at the top of the list of the seventeen “most famous” Pythagoreans women,⁷ at the end of Aristoxenus’ catalogue. As for Myllias,⁸ also present in eighteenth place on the list of the known male Pythagorean philosophers, besides the testimony relative to Timycha, little else is known.⁹ This catalogue is largely attributed to Aristoxenus – himself the author of a *Life of Pythagoras*¹⁰ – and records by his statements the importance of the female presence, a novelty and specific characteristic of the Pythagorean *paideia*.

In a number of explanatory passages of Iamblichus’ *Pythagorean Life*, but not only there (also in Porphyry), the *thaumasta erga* of Timycha and Myllias stand out as a model par excellence of *andreia* and *sophrosyne*, a consequence of the efficacy of the Pythagorean *paideia*. It is *sophrosyne*, that is temperance, which is dominant in the “extraordinary deeds” attributed to her and Myllias, namely the memorable encounter with the tyrant (discussed below), and which, according to the Pythagorean doctrine, defines the philosophical valence of Timycha of Sparta and her husband Myllias of Croton.¹¹

Iamblichus writes:

With respect to fortitude (*andreia*), however, many of the particulars which have already been related appropriately pertain to it; such as the admirable deeds of Timycha, and of those Pythagoreans who chose to die rather than transgress the decisions of Pythagoras concerning beans (*kuamos*), and other things conformable to such pursuits.¹²

In precisely the same narrative context, as well as the terms *sophrosyne* and *egkrateia*, the term *askesis* is also used:

Similar to these also were the precepts concerning silence, and those which tended to the exercise of temperance (*eis sophrosynes askesin*). For the subjugation of the tongue, is of all other continence (*egkrateumatōn*) the most difficult.¹³

ostrate” (Thesleff 198, 29–200, 15); Melissa D 1 (1 and 2) “to Cleareta” (Thesleff 115, 24–116, 17); Phintys B 1 (1, 2 and 4) (Stob. 4.23.61) and B 2 (1, 3) (4.23.61a); Myia D 1 “to Phyllis” (Thesleff 123, 12–124, 8); Perictione B 1 (1, 3 and 4) (Stob. 4.28.19); B 2 (3) (Stob. 4.25.50); B 3 (Stob. 3.1.120); Aesara / Aresa B 1 (1 and 2) (Stob. 1.49.27).

7 It is about paradoxical and inevitable contradiction in terms for the Pythagorean parameter “excellence” (male, all the more so if female) between, excellence / imposition for invisibility. See Mele 2013, 142 and following; Catarzi 2010, 142–152, in particular 146–148.

8 Porph. VP 61; Iamb. VP 189 and following, 233, 267.

9 Iamb. VP 143, 233; 267; cf. Ael. VH 4.17.1.

10 Aristox. fr. 31 Wehrli. As Giangiulio indicates, the quotation from Aristoxenus was present in the text of Nicomachus. Cf. Giangiulio 2000, 541–542, n. 233; Mele 2007; Zhmud 2012; Mele 2013.

11 Iamb. VP 187–195; 214.

12 Iamb. VP 214. Cf. Delatte 1930 (1931); Detienne 1975, in particular the second chapter, “The Spice Ox,” 37 and following.

13 Other passages in the work where the term *askesis* appears, besides VP 195, are VP 42: “Pythagoras also exhorted young men to the cultivation of learning (*pros ten paideian*), calling on

This statement, again from Iamblichus, is a quotation from historians of the Hellenistic era, Hippobotus (late third century BC) and Neanthes (early second century BC). It is thus not chronologically too distant from the previous one – if we take into account that the catalogue is of Aristoxenic origin (fourth century BC) – and the facts it relates.

In fact, if the “exemplary deeds” of the Pythagorean philosophers Timycha of Sparta and Myllias of Croton are comprehensible especially in the significance, values, and problems relating to the tradition of the ancient Pythagorean system, the data relating to these spouses should in turn be considered a product of a certain, subsequent Pythagoreanism (at the earliest in the fourth century BC), which corresponds to a period when the city of Croton was no longer the only hub of Pythagoreanism – as was the case when Pythagoras arrived in Croton from Samos (about 530 BC) – but when it was found rather in “the whole of Italy” and *Megale Hellas*, as the provenance of both the male and female philosophers mentioned in Iamblichus’ catalogue. To these “extraordinary deeds” Iamblichus had referred earlier, in paragraph VP 189, quoting the source and relating the historical event – a model of virtue in the Pythagorean way of life – that is, the ambush ordered by Dionysius II and carried out by Eumenes from Syracuse, brother of Dion, at the head of a group of 30 horsemen against a group of Pythagoreans including Timycha and Myllias:

(189) The temperance also of those men, and how Pythagoras taught this virtue, may be learnt from what Hippobotus and Neanthes narrate of Myllias and Timycha¹⁴ who were Pythagoreans (...). (192) (...) They (*scil.* Eurymenes and his thirty soldiers) were returning, but they happened to meet with Myllias the Crotonian, and his wife Timycha the Lacedaemonian, whom the other Pythagoreans had left behind, because Timycha, being pregnant, was now in her sixth month, and on this account walked leisurely. These therefore the soldiers gladly made captive, and led them to the tyrant, paying every attention to them, in order that they might be brought to him safe. (193) But the tyrant having learnt what had happened, was greatly dejected, and said to the two Pythagoreans, “You shall obtain from me honours transcending all others in dignity, if you will consent to reign in conjunction with me.” All his offers however were rejected by Myllias and Timycha; “If then,” said he, “you will only teach me one thing, I will dismiss you with a sufficiently safe guard.” Myllias therefore asked him what it was he wished to learn; Dionysius replied, “It is this, why your

them to observe how absurd it would be that they should judge the reasoning power (*dianoia*) to be the most laudable of all things, and should consult about other things through this, and yet bestow no time nor labour (*ponos*) in the exercise of it (*ein ten askesin*);” and VP 186: “But war is the leader and legislator of slaughter. For by this it is increased, and becomes strong and powerful. Not to step also above the beam of the balance is an exhortation (*askein*) to justice, announcing that whatever is just (*ta dikaia*) should be cultivated...”

14 Neanthes *FGrHist* 84 F 31 (= 31a.: Porph. VP 61; 31b: Iamb. VP 189–194). See Brisson 1996, 202–203.

companions chose rather to die, than to tread on beans?" But Myllias immediately answered, "My companions indeed submitted to death, in order that they might not tread upon beans, but I would rather tread on them, than tell you the cause of this." (194) Dionysius therefore, being astonished at this answer, ordered him to be forcibly taken away, but commanded Timycha to be tortured: for he thought that as she was a woman, pregnant, and deprived of her husband, she would easily tell him what he wanted to know, through fear of the torments. The heroic woman, however, grinding her tongue with her teeth, bit it off, and spat it at the tyrant; evincing by this, that though her sex being vanquished by the torments might be compelled to disclose something which ought to be concealed in silence, yet the member subservient to the development of it should be entirely cut off. Pythagoreans refused so much friendship with strangers, even though they should happen to be royal.

These extraordinary and hardly repeatable reactions, in utterly exceptional situations, are representative of the model of the spouses Timycha and Myllias. In fact, this extreme behaviour of Timycha presupposes the Pythagorean *askesis*, directed both to males and females in order to prepare them for the test of refusing *philia* with the tyrant. This concerning both the forms of power and especially the sharing of knowledge, which is characterized by the primary order of keeping "the secret," a true dogma and proof of excellence in achieving the Pythagorean *paideia*.

The significance of Timycha as model is analogous to what is indicated by the *arete* of Theano, both being the fruit of a common *paideia*, the acquisition of which is not related to gender, but the difference between them is that, whereas Theano teaches, essentially delivering precepts, Timycha enacts them.

B) Theano

Although the term *askesis* does not appear in the texts of the female Pythagoreans, the function of this notion for achieving the values that predominate in the presentation of Timycha as model finds full correspondence in the female Pythagorean precepts, which belong to the "world" of Theano. *Sophrosyne* is central to the teaching of Pythagoras for both males and females, a theme already significant in Iamblichus.¹⁵ He states:

(187) It follows, in the next place, that we should speak of temperance, and show how it was cultivated by Pythagoras, and how he delivered it to his associate.¹⁶ We have already therefore narrated the common precepts concerning it, in which it is said that every thing incommensurate should be

15 Porph. VP 18; Iamb. VP 132. Cf. Jufresa 1995, 17–40; Jufresa 1996, 95–108.

16 Iamb. VP 187; Porph. VP 18; Theano A 3 (Porph. VP 19); A 15 (Schol. in Luc. 24 6.10–23); Phintys B 1 (Stob. 4.23.61).

cut off with fire and sword. The abstinence also from animal food is a precept of the same kind; and likewise from certain foods calculated to produce intemperance, and impeding the vigilance and genuine energies of the reasoning power. Farther still, to this species the precept belongs, that sumptuous food should indeed be introduced in banquets, but should [shortly after] be sent away, and given to the servants, being placed on the table merely for the sake of punishing the desires. Likewise, that no liberal and noble woman should wear gold, but only harlots.¹⁷ Of the same type are the exercises aiming at the preservation of her purity from anything that might hinder it.¹⁸ (188) And again, the exercise of taciturnity, and perfect silence, for the purpose of governing the tongue. Likewise a strenuous and assiduous resumption and investigation of the most difficult theorems. But on account of all these, we must refer to the same virtue [i. e. to temperance], abstinence from wine; paucity of food and sleep; an inartificial contempt of renown, wealth, and the like; a sincere reverence towards those to whom reverence is due, but an unfeigned similitude of behaviour and benevolence towards those of the same age; an animadversion and exhortation of those that are younger, without envy; and every thing else of the like kind.¹⁹

The notions of *sophrosyne*, *andreia*, *egkrateia* dominate the exceptional *askesis* of Timycha, while Theano's *paideia* falls into the category of the Pythagorean rules in daily life. We find evidence of this in the so-called apophthegms attributed to Theano:

- “when she [sc. Theano] was asked how many days it was after sex with a man that a woman becomes pure, she said: ‘with her own husband, at once, but with another man, never.’ And she advised a woman who was about to go to her husband to cast off her shame with her clothes, and to pick it up with her clothes when she got up again. Asked what that was, she replied: ‘That which defines me as a woman.’”²⁰
- “Theano, the wife of Pythagoras, when asked how she would be held in high honour, said, ‘by plying my loom and resisting my bed.’”²¹
- Stobaeus reports that, “Theano, when putting on her *halation*, exposed her arm. A man said: ‘your arm is beautiful.’ She said: ‘but it is not public.’ And not only the arm. She maintained, in fact, that it was fitting that a wise woman should not even air her words in public, and should be ashamed of her voice

17 Theano D 5 “To Nicistrate” (Thesleff 198, 29–200, 15); Perictione B 1 (Stob. 4.28.19); Phintys B 2 (Stob. 4.23.61a). Cfr. Detienne 1975, 164–173; Pomeroy 2013, 62–64; Mele 2013, in particular 281–283.

18 See also Theano C 2 (D. L. 8.43) and n. 33; Phintys B 1 (4) (Stob. 4.23.61).

19 Iamb. *VP* 187–188.

20 Theano C 2 (D. L. 8.43); cf. Plant 2004, 70.

21 Theano C 3 (Stob. 4.32); cf. Plant 2004, 70.

in the presence of strangers as if she were undressing: the voice can, in fact, reveal the feelings, nature, and state of mind of she who speaks.”²²

- “Theano, the Pythagorean philosopher, when asked what the duty of a woman was, said ‘to please her husband.’”²³
- Stobaeus also attributes these words to Theano: “It is better to ride a horse without reins than to be an unreflective woman.”²⁴
- And: “There are things which it is fine to discuss; about these things it is shameful to remain silent. There are also things which it is shameful to discuss; about these things it is preferable to remain silent.”²⁵ (This is analogous to what Pythagoras himself maintained: “One must be silent or say things that are better than silence.”²⁶)

Similar and further indications come down to us from the so-called “Letters of Theano,”²⁷ which form the Pythagorean female *askesis*, directed especially towards the younger female students. These are a corpus²⁸ of extant letters, belonging to the genre of the philosophical epistles of the Hellenistic era, little jewels of Pythagorean knowledge. They comprise two groups of texts both of debated authenticity:²⁹ the first related to epistolographic tradition manuscripts, comprises three epistles, to Euboule, to Callisto, and to Nicostrate; the other comprises four epistles in the manuscript Vaticanus Graecus 578, Theano to Eucleides, to Eurydice, to Rhodope, to Timaeonides; an eighth, fragmentary epistle, from Theano to Timareta, is preserved in Pollux.³⁰

Particularly interesting are those belonging to the first group, dealing with issues that can be resolved by the Pythagorean *askesis*, founded on *sophrosyne*, *andreia*, *egkrateia*, the fundamental values of the Pythagorean *paideia*. All the texts taken together contain a real system of female Pythagorean values relating to family life:³¹ to Euboule, a young mother busy with the care of her child;³² to Callisto, a young master of the house busy with the management of the servants

22 Theano C 4 (Stob. 4.49). On the apophthegms attributed to Theano, see Montepaone 2011, 32–36, in particular 32, n. 29 and 36 n. 40. Cf. Plant 2004, 70.

23 Theano C 5 (Stob. 4.55); cf. Plant 2004, 70.

24 Theano C 1.6 (Stobaeus, *Florilegium Monacense*, 268 Meineke); cf. Pomeroy 2013, 69.

25 Theano C 1.7 (Stobaeus, *Florilegium Monacense*, 269 Meineke); cf. Pomeroy 2013, 68.

26 Stobaeus 3.34.7.2.

27 Montepaone 2011, 37–57.

28 Compare note 44 on page 37 by Ida Brancaccio in Montepaone 2011, 37–57 and relative comment.

29 Montepaone 2011, 37 n. 44 and 41 n. 69.

30 Poll. *On.* 10.21.

31 Theano C 3 (Stob. 4.32), and n. 36. On this see Pomeroy 2013; also: Waithe 1987; Montepaone 1993, 73–105 (= Montepaone 2003, 77–131); Montepaone 1999, 237–249; Natali 1995; Jufresa 1995, 17–40; Jufresa 1996, 95–108; Nisticò 2003; Plant 2004, 68–86; Brancaccio 2011, 19–37.

32 Theano D 1 “to Euboule” (Thesleff 195, 22–196, 34). It is interesting to compare Myia D 1 “to Phyllis” (Thesleff 123, 12–124, 8. See Montepaone 2011, 37–41 and 59–63.

in the *oikos*;³³ to Nicostrate, the young wife facing her husband's intemperate infidelity.³⁴

One case is representative of all of them: Theano to Nicostrate.³⁵ This is a situation for which a perfect solution is offered by the parameters of the Pythagorean *askesis*, especially *egkrateia*, dominion over the *thymos*, which bars uncontrolled acts that go against the Pythagorean *arete*, and *siope*, silence regarding the husband's guilt.

In fact, the philosopher intervenes with her wisdom to resolve a risk that the young wife Nicostrate could lose the Pythagorean *arete*, forgetting the virtue of the legitimate Pythagorean wife, because she is beside herself with jealousy: her husband has lost his head for a prostitute. She, therefore, plans her revenge, which would determine a series of disastrous social consequences, jeopardizing her role in the all the relationships involving her (husband, children, slaves, city, etc.).

Instead, how should a Pythagorean wife behave in this situation, compared with any other wife? Here one must call into question the *gamete arete* and, without ever equating oneself to any other "inferior" category (slave, concubine), be above all accommodating³⁶ towards the husband, who has yielded to a transient carnal "distraction," urged on by pleasure, contrary to a marital relationship based on mutual advantage.

The disastrous consequences of jealousy, in fact, risk strongly destabilizing the whole family relationship. Therefore, apply self control (*egkrateia*), be silent. Making the guilt visible, in fact, will only make it stronger, bringing further damage. Silence in relation to the outside world³⁷ instead, will keep the misdeed within the family and therefore will increase the husband's shame for the uncontrolled physical attraction for the prostitute.

Facing this situation with *sophrosyne*, *egkrateia*, and *andreia* will constitute *askesis* for the wife and correspondingly *paideia* for the husband.

Lastly, again according to the values of the Pythagorean *askesis*, we must assess the significance of Medea as a negative model: "The tragedy involving the acts committed by Medea against the rules – says Theano – teaches one to dominate one's jealousy."³⁸ The protagonist of Euripides' tragedy, according to the teachings of Theano, is stereotyped as transgressing the rules due to uncontrolled passion. From this follows the necessity to exercise control. Obviously we are far removed from Euripides' understanding of the tragic Medea, which is far more complex and full of internal and contradictory rules.

33 Theano D 4 "to Callisto" (Thesleff 197, 25–198, 28).

34 Theano D 5 "to Nicostrate" (Thesleff 198, 29–200, 15). Compare Theano D 3 "to Eurydice" (Thesleff 197, 12–24).

35 Detienne 1994, in particular "The Lettuce of Pythagoras," 123 and following.

36 Cf. Theano C 5 (Stob. 4.55), and n. 39.

37 Cf. Theano C 4 (Stob. 4.49).

38 Cupido 2002, 33–64; Pomeroy 2013, 92–93.

The advice given to Nicostrate by the Pythagorean philosopher necessarily presupposes the social, historical and institutional relations of the ancient city (*polis*), of which the family is a necessary and premise for that given historical and social context.

2 The sphere of *askesis*

In the passage quoted above from his *Commentary on Plato's Republic*, Proclus mentions Timycha and Theano together with Diotima. The name of Diotima does not appear in Iamblichus' catalogue, but it is clear that Proclus is referring to the Diotima of Mantinea who initiated Socrates into love-matters, *ta erotika*, in Plato's *Symposium*. For that matter, Plato does not name Theano or Timycha. What might the link be between these two excellent Pythagorean women and Socrates' teacher? Is this only a minimal and marginal sign of osmosis between Platonism and Pythagorism in the Neoplatonic *koine* of the fifth century AD? It seems that an answer might be had from Iamblichus, at the beginning of his account of the events involving Timycha. Timycha constitutes a model of temperance, *sophrosyne*, taken to extreme consequences and displayed in an exceptional state. In giving the characteristics of *sophrosyne*,³⁹ Iamblichus, as we have seen, stresses above all "the exercise of taciturnity (*echemythia*), and perfect silence (*panteles siopē*), which together exercise (*synaskousa*) for the purpose of governing the tongue (*to glosses kratein*)."⁴⁰ Certainly the episode involving Timycha, which Iamblichus reports in the subsequent paragraph, is an extreme example of "keeping absolute silence" and "controlling one's tongue." The expression of controlling one's tongue is also the phrase attributed to Theano by Stobaeus, as previously mentioned, though she is also known for her prompt answer and advice. But Iamblichus introduces an important, albeit indirect, indication of a link between the three women mentioned by Proclus. He uses the verb *synaskeo* to mean cooperation in carrying out an exercise in the best way. "Know when to be silent" and "keep absolute silence" are two practices that combine to control one's tongue, or two actions that combine to make up the practice of controlling one's tongue. Are they training for a test, or are they themselves the test? In any case, in its verbal form a key term is introduced: *askesis*.

Askesis can also be applied to Diotima. In fact, in Plato's *Symposium* 212b6 Socrates concludes in this way his account of the teachings he received from the woman from Mantinea on the matters of love: "I tell you now that every man should honor Love, as I myself do honour all love-matters (*ta erotika*) and exercise (*asko*) them especially (*diapherotos*), and exhort all other men to do the same." Socrates is voicing what his teacher has taught him, and certainly for the Neoplatonic Proclus there is no sense in posing the problem of the historical authenticity of

39 Iamb. VP 187.

40 Ibid. 188.

Diotima,⁴¹ who is distinguished by the role she plays in the Platonic dialogue. Diotima is her teachings, discernible in the life of her pupil Socrates, who in the matters of love considers himself an expert.⁴² And as an expert Socrates continues to practise and encourage this exercise (*askesis*) in others. In his exercise he excels, he stands out in a particular way (*diapherontos*) from all the others. His distinction makes him a model, and he cannot disguise his knowledge of love through irony: if love is to be practised it cannot be hidden, it is involvement to the core, whereas irony is an exercise of distancing.⁴³ Diotima's teaching in the *Symposium* affords us a link between *eros* and *askesis*.⁴⁴ Both identify strategies of acquiring and preserving.⁴⁵ Both refer to a pre-eminence of that which is practical and that which cannot be replaced by speech or reasoning.⁴⁶

Askesis, which with Timycha is presented in a state of exception and with Theano in one of an orderly daily life, refers in the case of Diotima to a cohesive force, Eros, that increases the more it is practised, and finds the fundamental rules of its practice in teaching, in learning, and in preserving.

Askesis is, in fact, essentially exercise, practice, ways of learning, honing, perfecting, preserving, and transmitting through practice. But *askesis* is also a way to involve oneself and transform oneself. Terms linked to *askesis* are *askema*, "practice," *asketes*, "skilled person, expert," *asketikos*, "laborious." Above all the reference to the verb *askeo*, from which the noun derives, is fundamental.

The early meaning of *askeo* is "to mould," "build," "produce," and later "practise," "exercise," "cultivate," "submit through practice." In Homer, for instance, the verb is used to indicate to knit, to shape metal, to make a bow.⁴⁷ But, in particular, *askeo* in the *Iliad* 10.438 is used for the act of adorning and embellishing a chariot with gold and silver, and in 14.240 the building of a gold throne by Hephaestus. In the *Odyssey* 1.439 it indicates the wet-nurse Euryclea's act of carefully placing one of Penelope's dresses, and in 3.438 binding with gold the horns of a heifer to embellish them. It is from these last passages of Homer's poems that the verb *askeo* tends to take on the meaning of an act that increases value, initially

41 On the problem of the "historical" Diotima cf. Levin 1975.

42 Cf. Plat. *Symp.* 177d8 and 198d1.

43 On the relationship between truth and simulation in Socrates' exposition of matters of love see Stavru 2011, 171–184.

44 Cf. Macedo 2003.

45 Cf. Plat. *Symp.* 200c–d. Eros is a desire to have what one does not have, and preservation is a desire for the future to have that which is lacking in the present. In the same way *askesis* is aimed at perfecting, and is therefore linked to a lack, as well as to preservation, that is, for the future of what has been acquired through it. But *eros* and *askesis* also presuppose a certain "vital energy," that is an initial willingness to practise, recognizing potential qualities in one's nature.

46 Cf. Plat. *Symp.* 209e6–210a3.

47 In Hom., *Il.* 14.179 *askeo* indicates making a dress by Athena; in 18.592 shaping metal. In *Od.* 4.134 it expresses knitting, in 23.198 the making of a leg of Odysseus' bed in the reply he gives to Penelope.

aesthetic,⁴⁸ and then of some other kind. In the Attic dialect and in the comedies *askeo* takes on for the first time the meaning of “to exercise,” “to practise,” “test oneself,” regarding sports events both agonistic and antagonistic, and then to the practice of a moral and religious life.⁴⁹ The verb identifies a goal to be achieved and at the same time an opposition to be dominated. The one cannot be had without the other. To practise means to test oneself,⁵⁰ but there is also practice that is preliminary and preparatory to the test.

It is with the meaning of exercise and increase in value that the verb *askeo* is found in the first philosophical contexts.⁵¹ In particular, Democritus in B 65 DK states, “One should exercise (*askein*) much-sense, not much-learning (*polymathie*);”⁵² and in B 110 DK, “Let a woman not exercise (*me askei*) speech, for that is terrible (*deinon*);”⁵³ finally, in B 242 DK, “More people became good (*agathoi ginontai*) by exercise (*ek askeseos*) than by nature (*apo physios*).” Particularly, in this last fragment *askesis* is placed in opposition to *physis*.⁵⁴ One is by nature, but one becomes with *askesis*, going against one’s nature, or in any case finding in it that element of friction on which to practise.

Philostratus in *Vitae Sophistarum* 1.9.5 quotes the words of Dionysius the Elder, who in turn quotes the words of Gorgias (B 6 DK) regarding the Athenians who distinguished themselves in war for the following qualities: “In time of duty dutifully to speak (*legein*) and to leave unspoken (*sigan*), to act (*poiein*) <and to leave undone (*ean*)>, exercising (*askesantes*) two needed qualities especially, judgment (*gnomen*) <and strength (*romen*)>, one for deliberating, the other for accomplishing.”

Besides containing what will become two characteristics of Pythagorean *sophrosyne* in the testimony of Iamblichus, that is, “know when to be silent” and “be absolutely silent,” and also from the practical perspective of “doing” and “not doing,” this passage expresses two meanings of *askesis*: active knowledge and the application of what is learnt, overcoming the resistances and internal and external frictions.

Further elements that characterize *askesis* appear in Xenophon who, in *Memorabilia*, 1.2.19 attributes the following words to Socrates: “I notice that, just as those who do not exercise (*askountas*) the body cannot perform the functions proper

48 For example, in Eur. *El.* 1073 *askeo* indicates caring for one’s appearance. In Soph. *Tr.* 1023 preparing oneself to appear elegant. In Soph. *El.* 452, it indicates an embellishing.

49 For a diachronic analysis of the verb and its derivations from the meaning of work and production, to that of physical, moral, and religious exercise, cf. Dressler 1947.

50 For example in Aristoph. *Pl.* 47.

51 For example Xenoph. B 3, 6 DK and Democr. B 53 DK, but not in Emp. B 87 DK and in B 61, 4 DK.

52 In this fragment, echoing the criticism of *polymathie* of Heraclit. B 40 DK, *askeo* expresses a qualitative increase compared to a quantitative broadening of one’s learning.

53 In this case the increase rendered by the verb *askeo* would actually lead to a negative value. Therefore the increase expressed by the verb is completely independent of the assessment of the increased value.

54 Cf. also Protag. B 3 DK, for whom *physis* is not a means of contrast to practise upon, but indicates a preliminary inclination to practise and learn.

to the body (*ta somata*), so those who do not exercise (*askountas*) the soul cannot perform the functions of the soul (*ta tes psyches erga*): for they cannot do what they ought (*dei*) to do (*prattein*) nor avoid what they ought (*dei*) not to do (*apechesthai*).⁵⁵ *Askesis* is a preparatory exercise, thus an activity relating to another activity, involving both body and soul, and relates to the determination to do or not do what in any case, regardless of the exercise, one knows what one must do or not do. It seems that precisely in *askesis* lies the basis of so-called "ethical intellectualism." The fact that the will is consequent to the intellect, so no-one knowingly commits a misdeed but does so only through ignorance of what is right, is true only for one who has exercised and continues to exercise, and therefore is able, thanks to *askesis*, to do what is right after recognizing it as such, and not to do what is not right.

Plato stresses the function of acquisition rendered by *askesis*.⁵⁵ The verb *askeo* indicates the act of taking care of something, of cultivating it for oneself, and exercising it for others,⁵⁶ so that the latter may recognize a quality of the person exercising it, which is shown precisely through the exercise. Therefore, the moment of recognizing by others' *askesis* occurs regardless of the fact that the latter, in turn, are more or less trained to recognise it. This in a certain way may reveal a legacy of *askesis* as athletic training; in fact the well-trained athlete will win, and with his victory will make others recognize his gymnastic qualities and, above all, the long training he has had to endure to enable him to win.

But it is above all in the two principal political dialogues of Plato that the concept of *askesis* shows greater intensity. In the *Republic*, 7.518e1, Socrates states that there are virtues of the soul similar to those of the body, that is, that they are not pre-existent to incarnation but rather are created in the soul by habit (*ethos*) and training (*askesis*). Therefore *askesis* combines with *ethos* to allow the soul, like the body, to acquire something that in itself, because of its very "nature," the one or the other would not have; that is, something foreign to the "nature" of the soul or the body but not incompatible with it.⁵⁷

Besides, not everyone can undergo the same training and the same *askesis*, nor can they all learn the same things. A predisposition to face the love of effort (*philoponia*) is always necessary, in order to wish for the antagonistic contrast with effort. *Askesis* is a form of dominion over the effort, and therefore prepares the way for learning. *Askesis* and learning are two related terms. But first what must be identified is the disposition, the character, the nature of the individuals. One's nature predisposes one to a certain *askesis*, which in turn modifies one's nature.⁵⁸

55 For example in *Prot.* 323d7, *Gorg.* 486c5.

56 These two moments are preserved in *Leg.* 7.806a3.

57 The reference to "one's nature" proceeds, more explicitly regarding the teaching of temperance (*sophrosyne*), from value (*andreia*) and magnificence (*megaloprepeia*) in *Resp.* 7.536b1 and following.

58 Cf. *Resp.* 3.404a9 and following.

The reference to the nature of those who practise *askesis* brings Plato to stress the singularity and uniqueness of exercise for each individual.⁵⁹ *Askesis* increases in relation to the importance of the thing to be practised and is accompanied by study. One must train only in one thing in order to do it well. Someone who practises a virtue cannot at the same time watch over someone else practising it or a different virtue.⁶⁰ It seems that the exercise defines the individuality of those who practise it, or that this individuality is expressed through the exercise.

Aristotle too stresses that *askesis* must be suited to the nature of the one who practises it,⁶¹ and stresses its conservative and sustaining function.⁶²

One's nature predisposes one to the type of exercise, as stated in *Politics* 7.1336a21 in relation to the education of children: "The bodily habit of children is naturally well fitted (*euphyes*) by warmth to be exercised (*askesin*) to bear cold." But, besides nature, another factor that unifies and directs exercise is custom. In *Politics* 8.1337a27, Aristotle presents the need for common and public education for all citizens, in conformity with the custom (*ethos*) of the constitution: "Matters of public interest ought to be subject to public exercise (*askesis*)."⁶³

And finally, the type of virtue for which one is training determines the type of exercise, as Aristotle states in *Politics* 8.1337b3: "All men do not honor the same virtue, so they naturally hold different opinions in regard to exercising (*pros ten askesin*) in virtue."

Aristotle then sets exercise in relation to happiness.⁶⁴ Exercise is separated from teaching and habit. If something can be taught it is unrelated to the nature of the person who teaches it and from the person who learns it, whereas habit and exercise are not unrelated to nature. A further characteristic of habit and exercise compared to learning is the need for repetition that the first two entail: what is acquired by habit and exercise can be lost without repetition.

The term *askesis* appears with limited frequency in Plotinus, even though he presents a conception of philosophy as essentially a lifestyle. Besides the general meaning of "exercise,"⁶⁵ *askesis* emerges here as a condition of acquiring habits.⁶⁶ The non-intellectual virtues, the so-called "ethical virtues," are proper to the individual and are acquired by habit and exercise. Therefore *askesis* is an act of acquiring and preserving that has nothing to do with the soul but rather with the

59 For example in *Leg.* 8.846d4 and following.

60 In this criticism of the multiplicity of the occupations – dealt with again in *Resp.* 2.370b–d, 374a, 394e, and then by Arist. *Pol.* 2.1273b9–12 – there are resonances of the Heraclitean criticism of *polymathie*.

61 Cf. Arist. *Pol.* 4.1288b12.

62 Ibid. 2.1271b3 and following.

63 Cf. also Arist. *EN.* 9.1170a11: "Moreover the society (*suzen*) of the good may supply a sort of exercising (*askesis*) in goodness," where *askesis* also takes on the meaning of "incitement."

64 Cf. Arist. *EE.* 1.1214a19 and *EN.* 1.1099b9 and b16.

65 For example in Plot. 3.2.8, 16.

66 Ibid. 1.1.10, 13 and 3.6.6.

passions of the individual.⁶⁷ Exercise, therefore, does not set in motion a process of purification, but of controlling and managing one's passions. In *Enneads* 2.9.15, 17, *askesis* "saves the world" from the condemnation dealt out by the ethics of the gnostics, who suggest an escape by eliminating "the root of all orderly living (*to sophronein*) and of the righteousness (*dikaiousunen*) which, innate in the moral sense (*sumphuton en tois ethesi*), is made perfect (*teleioutemenen*) by thought (*ek logou*) and by self-discipline (*askeseos*)." And therefore *askesis* not only has to do with the acquisition but also of the perfecting of a virtue, justice (*dikaiousune*), which is innate.

Conclusion

In the events involving the Pythagoreans Timycha and Theano, two co-ordinates clearly emerge, namely excellence and normality, which define and enclose an area of possible intermediate shades of meaning relating to the field of application of the female Pythagorean *askesis*.

Askesis identifies putting oneself to the test but also training for the test, and therefore the test of the exercise is not the test one is training for. In the case of *askesis* as training, repetitiveness is a fundamental characteristic. In the case of *askesis* as a test for which one is training, the fundamental characteristic is its uniqueness, its non-repetitiveness. Timycha's test is certainly not repeatable, at least not by her, whereas the *askesis* that Theano is seen to possess, and to which in her letters she invites others to conform, is repeatable both by Theano and by the recipients of her letters.

"Pythagorean" *askesis*, in addition, expresses belonging to a group, a school. It refers, in fact, to one specific exercise as opposed to another, and what identifies the singularity of the exercise is the set of values and objectives that belong to the group. The individuality of the person who carries out the exercise comes into play mainly in relation to contingent factors, and in any case is not founded on *askesis*. In the exercise, what is individual is above all the set of contrasts to be overcome, not because they represent any singularity but, on the contrary, because they are contingent.

In addition, *askesis* essentially identifies "a relationship of three components:" the doer, what is to be done, and the resistance to be overcome. The Pythagorean *askesis* relates to *bioi*, that is, to the incarnate souls; it is not presented as a purifying act. What one acquires through *askesis* can be lost by idleness, by a lack of exercise. But above all *askesis*, which is often associated with habit, is presented as an artificial way to create new habits, new spontaneousness regarding one's nature. It promotes a "second nature," with the consequences of automaticity and thoughtlessness that this induced spontaneousness entails.

With regard to the automaticity of *ethos*, *askesis*, however, presents an "active automaticity," a thoughtless mechanicalness in continuous antagonism with a friction. Therefore the love of effort – the *philoponia* that Plato speaks of in the

⁶⁷ Ibid. 6.8.6, 25.

Republic 7.535 d1 and d7 – is a natural predisposition that does not reduce the intensity of the friction, but makes the perception of friction a factor that increases the desire to continue to train and measure oneself. And in this sense, unlike *ethos*, *askesis* is not a conditioning factor but rather one of openness, made possible through overcoming resistance.

Through Pythagorean *askesis*, those who practise it contribute to creating order in the universe, and they reap it through the same exercise by which they create it. Everything occurs within the area defined by their role and their functions, regardless of distinctions regarding points of view, such as “large” and “small,” “high” and “low.” In fact there is no high without low just as there is no state of exception (Timycha) without daily normality (Theano).

A system of thought potentially totalizing and “totalitarian” such as the Pythagorean system, which aspires to regulate every aspect of life (because the order of the cosmos influences every aspect of life), produces conditions of excellence through *askesis*, maintaining in these conditions the paradoxical situation that is peculiar to any model of excellence: a model is such because it presents differences compared with the average, but, at the same time, a model is such only if it proves imitable. An inimitable model would constitute a contradiction in terms. However, if the model were entirely imitable and everyone were able to conform to it, it would lose the characteristics of excellence, of difference compared to that average, that have made it a model. That is, for a model of excellence to be such, it must be at the same time imitable and inimitable. And this condition is valid for the two Pythagorean women Timycha and Theano, as they have been presented to us by Iamblichus and Proclus.

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The *Sentences of Sextus* and the Christian Transformation of Pythagorean Asceticism

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The so-called *Sentences of Sextus* (*Sextii Sententiae*) seem to be, in their present form, a Christian collection, probably dating to the late second century CE, of mostly moral sayings inspired by Pythagorean ethics.¹ This “pagan” Pythagorean substratum is here adapted to a Christian milieu through a careful, albeit not too invasive, reworking, and the shift from “pagan” philosophical asceticism to Christian asceticism is probably the most remarkable feature of this collection. Thus, it provides an extremely interesting instance of the transformation of Pythagorean ἀσκησις,² first in the Christian reworking of the collection itself, based on earlier, “pagan” material, and later in the impressively wide and consistent Christian reception of this instance of Christianized Pythagorean asceticism.

The Greek text of the *Sentences* is extant in two manuscripts: Patmiensis 263, from the tenth century CE, and Vaticanus graecus 742, from the fourteenth century. Some of the sayings are also included in P. Palau Ribes Inv. 225v, from the fourth-fifth century CE, and a small portion of them was found among the Coptic “Gnostic” codices of Nag Hammadi.³ The *Sentences of Sextus* were also translated into Latin by Rufinus of Aquileia, the translator of Origen of Alexandria and Eusebius of Caesarea, at the end of the fourth to the early fifth century. It is significant that the Origenian ascetic and monk, Rufinus, the friend of the Origenian ascetics Melania and Evagrius Ponticus, saw such a continuity between the ascetic ideas expressed in these *Sentences* and the Christian ideals of “philosophical” asceticism and monasticism dear to Origen and his followers that he ascribed this collection of Christianized Pythagorean moral wisdom to Pope Sixtus II (*Xystus*),

1 The 451 “sentences” considered to be authentic are translated into English and commented on by Wilson 2012, who has also offered a new critical edition based on the two Greek manuscripts and on the ancient Latin and Syriac versions.

2 On Pythagorean asceticism see Finn 2009, 27–30.

3 NHC XII,1, ed. Poirier / Painchaud 1983. For a reassessment of the Nag Hammadi collection and its meaning in relation to early Christian asceticism see Denzey Lewis / Ariel Blount 2014. They challenge the hypothesis of James M. Robinson and others that the collection was intentionally buried for posterity by ascetics such as Pachomian monks and suggest instead that the collection came from Graeco-Egyptian private citizens in late antiquity who commissioned the texts for personal use and deposited them as grave goods (following a widespread Egyptian practice).

martyred under Valerian and a contemporary of Origen. Since this attribution is also found in the independent Syriac translation of the *Sentences* (independent on Rufinus' version because of different translation choices and a different *Vorlage*, and found in two Syriac versions, in an Armenian version, and in the *Sacra Parallela* ascribed to John Damascene), it is highly probable that Rufinus took this attribution from an earlier tradition. Henry Chadwick deemed the attribution to Pope Sixtus not impossible,⁴ since, even if the *Sentences* are for the most part earlier, their final redaction is Christian, with Christian additions and revisions, often subtle. Rufinus was aware that Origen, who died around 255 CE, knew this collection and that he attributed it to a Christian philosopher. Indeed, in his Homily 1 on Ezekiel Origen quoted *Sext. Sent.* 352 and ascribed it to a "wise man, a believer" (*sapiens et fidelis vir*).

Jerome was another monk who, for so long as he too was a great admirer of Origen, had been a friend of Rufinus, but he then became his enemy because of the Origenistic controversy.⁵ In *Letter* 133, written after his U-turn against Origen and his followers,⁶ he denounced as illegitimate the cultural operation of attributing these Pythagorean sentences to a Christian author – this move was a cultural operation because it tended to highlight the continuity between "pagan" Pythagorean ethics and Christian asceticism. Jerome claimed instead that the author of the *Sentences of Sextus* was in fact a "pagan" Pythagorean, Sextus, *homo absque Christo atque ethnicus* ("a heathen, a person without Christ"). With this, Jerome intended both to denigrate Rufinus and, at the same time, to keep "pagan" moral philosophy distinct from asceticism. Jerome was wrong, however, because the *Sentences of Sextus* known to him, Rufinus, and Origen were already Christianized, and this very Christianisation shows that in the eyes of the Christian redactor – just as later in the eyes of the Christian admirers of the *Sentences of Sextus* – there was a profound affinity between (broadly) Pythagorean moral-ascetic wisdom and Christian "philosophical" asceticism. The Christian reworker seems to have added just a few sentences to his source material, often only changing or introducing some strategic words, such as πιστός, "faithful, believer," and adding brief echoes from Scripture.

The fact that these *Sentences* were known already to Origen between the end of the second and the beginning of the third century, and that Origen attributed them to a Christian Sextus, may have later enhanced the monk Rufinus' own interest in them. The *Sentences of Sextus* were also used by Basil of Caesarea – the founder of "Basilian" monasticism – in his work on baptism and by his disciple, the ascetic author Evagrius Ponticus, who spent most of his life in the Egyptian desert and soon became a major source of inspiration for Christian ascetics and monastics for many centuries. Evagrius also was an Origenian, like Rufinus and

4 See Chadwick 1959.

5 See Ramelli 2013, 627–658.

6 On which, see Ramelli 2014. For the larger intellectual context of this controversy see ead. 2013.

partially Basil.⁷ The *Sentences of Sextus* were also cited by Pelagius, St. Benedict, and St. Columban – the last two being real fountainheads of monastic tradition. The rich reception of the *Sentences of Sextus* in monastic circles cannot escape notice and was obviously due to their ascetic inspiration. It was an asceticism that had its roots in Pythagorean ἄσκησις, but a Pythagorean ἄσκησις that had already been transformed by a moderate Christianisation.

Precise correspondences can be drawn between the *Sentences of Sextus* and the “pagan” *Pythagorean Sentences* (*Sententiae Pythagoricae*), as well as the “pagan” Pythagorean collection *Clitarchus*, but also, for instance, Seneca’s treatise *On marriage* (*De matrimonio*), assuming that this work is at least fragmentarily preserved by Jerome in his *Adversus Jovinianum*.⁸ One example is offered by *Sext. Sent.* 231–232, according to which every unrestrained husband commits adultery with his own wife; this sentence is found, verbally identical, both in *Clitarchus* 71 and in Seneca’s treatise (84: *unde et Sextus in sententiis: adulter est, inquit, in suam uxorem amator ardentior*), unless this is simply a quotation of the *Sentences of Sextus* by Jerome and not a quotation from Seneca’s own citation of the *Sentences of Sextus*. The principle that procreation is the only goal of marriage – a Pythagorean tenet emphasized by Sextus⁹ – is also found in Roman Stoics such as Musonius Rufus (*Diatribe* 12), later abundantly quoted by Clement of Alexandria and well known to, and admired by, Origen as well.¹⁰

The author of the *Sentences of Sextus* may have known Philo of Alexandria, too, who was called a “Pythagorean” by Clement of Alexandria,¹¹ and who valued philosophical asceticism and described it especially in his *De vita contemplativa*, a treatise entirely devoted to the ascetic life of the Jewish Therapeutae. Richard Finn deems the Therapeutae close to Levites, bound by purity laws,¹² while Philo depicts them in a more philosophical light and inscribes their asceticism in a philosophical framework. Philosophical asceticism is a characteristic of Sextus, too, and of several Christian thinkers who valued the *Sentences*, from Origen to Eusebius, Gregory of Nyssa, Evagrius, and Rufinus.

⁷ See in this respect Ramelli 2015.

⁸ This is the opinion of Lentano 1995, who also identifies Sextus with Sextius of the Sextii school known to Seneca (43 n. 66), although this identification is highly controversial. See discussion in Ramelli 2008 and 2009.

⁹ On how sexual ethics and asceticism are treated in the *Sentences of Sextus*, with particular attention to the issues of self-mutilation, celibacy, and procreationism, see Pevarello 2013, Ch. 2.

¹⁰ See Ramelli 2001 and 2008a, 689–943. For Clement see *Paed.* 2.10 on this specific point, and several other passages for quotations from Musonius: see Parker 1901. Origen, too, admired Musonius and considered him a “paradigm of the most virtuous kind of life” (παράδειγμα τοῦ ἀγίστου βίου, *Cels.* 3.66). For Musonius on marriage and procreation see now also Laurand 2014.

¹¹ See Runia 1995 and Otto 2013, who disagree with each other about the reason for this designation.

¹² Finn 2009, ch. 2.

Echoes of the New Testament are arguably also found in the *Sentences of Sextus*: for example, *Sext. Sent.* 230a may reveal a reference to 1 Cor 7:35, and *Sext. Sent.* 233 may echo Matt 5:28. And these are far from being the only probable parallels between these *Sentences* and the Christian scriptures. However, these biblical echoes are very discreet, relatively rare, and never explicit – Sextus never introduces them by means of formulas such as “as Scripture says,” “as the Apostle says,” “as Jesus / the Lord says,” and the like. In this way, the *Sentences of Sextus* could convey a Christianized Pythagorean ascetic wisdom in an apparently “neutral” form, which carried no overtly Christian marks. Thus, for instance, Jerome could claim, mistakenly but plausibly, as I have pointed out, that this collection was in fact the product of a “pagan” author.

Another of the *Sentences of Sextus* is interesting for the conceptual and verbal parallels that it exhibits with passages in the New Testament which, again, are not quoted as such (1 Tim 5:6, Rev 3:1–2, some Pauline *loci*), as well as with imperial Stoics and Middle Platonists such as Juvenal, Musonius, Seneca, and Philo.¹³ *Sext. Sent.* 7 revolves around the notion that living a life deprived of virtue makes one morally and spiritually dead, even if one is bodily alive: “A faithful person whose faithfulness has been proved is a god in a [living] body of a human being; a faithless person, if proved such, is a dead human being [νεκρὸς ἄνθρωπος] in a living body.”¹⁴ The context of this Sentence helps us to understand its conceptual framework and makes it clear that the reference is indeed to spiritual death. For in *Sext. Sent.* 1–6 “Sextus” has explained that a “person of God” is faithful and really alive, because her conduct is worthy of God: “A faithful human being is an elect person. An elect person is a person of God. A person of God is one who is worthy of God. One who is worthy of God is a person who does nothing unworthy of God. Therefore, if you endeavour to be faithful, do nothing unworthy of God.” Thus, true human life is a life that is worthy of God and makes one closer to the divine. A person who lives in vice, on the contrary, is apparently alive, but spiritually dead. This is the same notion expressed by the author of 1 Timothy, who was steeped in Hellenistic philosophy and describes a widow who lives in vice as one who, “albeit alive, is in fact dead” (ζῶσα τέθνηκε, 1 Tim 5:6). This conception of the spiritual death of the immoral person is also found in Rev 3:1–2, where such a person is called “dead” (νεκρὸς), in the Neo-Academic Cicero (*Ad Atticum* 12.2: a person who pursues only pleasures “is dead” [βεβίωται]), and in authors of the first-second century CE influenced – to different extents – by Stoicism, such as Seneca (*De brevitate vitae* 12.19: a vicious person “is dead” *mortuus est*), Musonius, and Juvenal (*Sat.* 8.85–86: the dissolute “has already died,” *periit*, while leading a life of pleasure), and repeatedly in Philo of Alexandria, who was close to Middle Platonism: in his *Quis rerum divinarum heres sit* 293: the vicious person is already dead, τετελευτηκώς; also in his *Deterior potiori insidiari solet* 49:

13 On all these, see Ramelli 2010.

14 All translations are mine, unless otherwise stated.

the vicious person is dead, τέθνηκε; and in *De fuga* 55: vicious people are dead while living, τεθνηκότες ζῶσι. Origen, who was familiar with the *Sentences of Sextus* as well as with Philo, the New Testament, and Musonius, inherited this notion in his own, deep reflection on moral/spiritual death, which he also posited as the real death and the real evil (physical death being just an *adiaphoron* or indifferent thing in the Stoic sense).¹⁵

This second-century collection of originally “pagan” and prevalently Pythagorean sayings, compiled and reworked by a Christian, shows how Pythagorean, Stoic, Cynic, and Platonic asceticism was taken up by a Christian author, with respect not only to sexual restraint and other manifestations of self-control and renunciation, but also to voluntary poverty. The *Sentences of Sextus* and their immediate Christian reception actually cast some light on early Christian asceticism prior to the formal establishment of monasticism, before both St. Antony and the Cappadocians. That the intended audience of the *Sentences of Sextus* was mainly constituted by ascetics and monastics is suggested not only by their advocacy of radical poverty, as I shall point out, but also by several Christian adaptations of the “pagan” philosophical source material, such as *Sext. Sent.* 230a, which has no parallel in the “pagan” *Pythagorean Sentences* or *Clitarchus* and in which a person is allowed to renounce marriage to live as a companion of God. As has been observed by Daniele Pevarello, the *Sentences of Sextus* as well as the *Acts of Paul and Thecla* indicate that a strong ascetic strain existed in Christianity already in the second century.¹⁶ Indeed, I would add, toward the mid-second century, Justin also speaks of many women and men who, in his day, were seventy and had been consecrated virgins since their youth (*Apol.* 1.15.6). These ascetics, therefore, were born around 80 CE, which means that before 100 CE many Christians had chosen virginity voluntarily. We can take this as one expression of Christian asceticism. Justin, however, does not specify whether their asceticism also involved voluntary poverty, an ideal that the *Sentences of Sextus* underline.

The diffusion of the *Sentences of Sextus* in early Christian asceticism and monasticism, from Origen of Alexandria – who attests to their being read and valued by many Christians in his day (*Cels.* 8.30; *Comm. in Matt.* 15.3) – to Evagrius Ponticus, Rufinus, Jerome – who again testifies to the wide circulation of these *Sentences* “through many provinces” (*Comm. in Jer.* 4.41) – and the Egyptian, Syriac, and Armenian monks, as well as the western Benedictine tradition, both confirms the continuity of ascetic ideals between “pagan” and Christian ascetics, and at the same time reveals the transformation and adaptation of Pythagorean ἀσκησις to various Christian milieux. The closeness of the *Sentences of Sextus* to the Origenian ascetic tradition is emblematically shown by the attribution of *Sent. Sext.* 152 in the *Regula magistri* 11 to Origen himself: *Origenes sapiens dicit* (sic!). It is significant that here Origen is still depicted as a sage, and not as a heretic.

¹⁵ See Ramelli 2011.

¹⁶ Pevarello 2013, 209.

The very analysis of the *Sentences of Sextus*, together with their Christian reception, shows the deep continuity that existed between “pagan” ascetic-philosophical traditions and the origins of Christian asceticism and monasticism. Henry Chadwick had already noticed this continuity,¹⁷ but new insights and a different perspective are in order, since Chadwick wondered whether the Christian Sextus’ use of “pagan” sources had blurred “distinctions which might better have been kept more clearly in view.”¹⁸ It is unclear why distinctions, rather than continuity, between “pagan” and Christian asceticism should be highlighted, although of course distinctions did exist (for instance, an emphasis on faith, the abovementioned πίστις, which is certainly a Christian addition to the earlier Pythagorean material, or the recourse to the New Testament as an authoritative source – although I have already noted how covert and circumspect this recourse was in the *Sentences of Sextus*). But a strong continuity also existed. This is shown by the *Sentences of Sextus* themselves, in the very fact of their constitution out of Pythagorean lore, which was almost entirely preserved and only very slightly supplemented or changed, and their Christian reception. It is also supported by an ongoing, larger investigation into the possible role of asceticism in the rejection of slavery and social injustice, not only in early Christianity, but also in ancient Judaism and “pagan” philosophy.¹⁹ One major issue in this connection is the question whether the relation between asceticism and the rejection of both slave ownership and social injustice that leads to poverty was simply the result of embracing voluntary poverty, since possessing nothing implies possessing no slaves either, or whether there were other motivations at work. One such motivation could be the idea that one should avoid robbing other people of what they need by possessing too much oneself, on the basis of the principle that wealth is tantamount to theft (see below). Now, not only Gregory of Nyssa, but also, as I shall argue shortly, the *Sentences of Sextus* suggest that the latter motivation was relevant at least in some cases, and had to do with the connection not only between asceticism and renunciation or self-restraint, but also between asceticism and justice.

The ideal of voluntary poverty and dispossession (ἀκτημοσύνη) of the Christian sage in the *Sentences of Sextus* has remarkable implications with regard to the continuity between “pagan” and Christian ascetic-philosophical ideas. For the ἀκτημοσύνη of the sage passed, more or less directly, into the ἀκτημοσύνη of Christian monastics – in this case perhaps through a transfer rather than a full transformation –, also thanks to the convergence between this philosophical ideal and the New Testament ideal of voluntary poverty. The latter is clearly advocated both by Jesus in the episode of the rich young man (Luke 14:33: perfection consists in selling whatever one possesses and following Jesus) and

¹⁷ Chadwick 1959.

¹⁸ Ibid., 162.

¹⁹ Ramelli 2016.

elsewhere,²⁰ and by Paul, who described himself as poor and possessing nothing (2 Cor 6:10), and partially by the author of Acts in 2:44–46 and 4:32–36, where the members of the early Jesus movement in Jerusalem are portrayed as possessing nothing individually, but as holding everything in common. Pevarello is correct when he remarks that, “Sextus depicts voluntary poverty as a distinctive feature of moral excellence. This step marks an important stage in the development of the Christian understanding of voluntary poverty, anticipating and enabling the ascetic severity of monastic poverty as a sign of true wisdom and affirmation of one’s freedom from the world and dominion over it.”²¹ Voluntary poverty will be consistently exalted by theologians such as Gregory of Nyssa, an admirer and theoriser of Christian asceticism as the true philosophical life.²² Hence, for instance, his enthusiastic portraits of his siblings Macrina and Naucratus as perfect ascetics who embraced voluntary poverty.

In *Sext. Sent.* 81 the reader is invited to throw his or her best possessions (τὰ κάλλιστα τῶν κτημάτων) into the mud in order to be pure. And in *Sext. Sent.* 18 the ideal philosophical and Christian sage is depicted as without property: “a sage without property is similar to God” (σοφὸς ἀκτήμων ὁμοιος θεῷ), in Rufinus’ translation *sapiens vir et contemptor pecuniae*. That God has no possessions was emphasized by the Stoic and Pythagorean traditions rather than the Christian one; this aspect was related to God’s having no needs. Stoics such as Seneca and Musonius stressed that God needs nothing, and Musonius presented the Stoic-Cynic sage, an imitator of God, as neither needing nor possessing anything (*Diss.* 14.6: ἀκτήμων). And in the “pagan” *Pythagorean Sentences* the same idea is expressed, that the philosopher is similar to God precisely through needing nothing and possessing nothing: “the person who is self-sufficient, without property, and a philosopher [ὁ αὐτάρκης καὶ ἀκτήμων καὶ φιλόσοφος] lives in a way really similar to God [θεῷ ὁμοίως]” (*Pyth. Sent.* 30c). The ideal of dispossession for the philosopher surfaces again clearly in *Sext. Sent.* 227: “no possession [κτῆμα] should be regarded as the property [μηθὲν ἴδιον] of the philosopher.” Likewise, accepting money or possessions is declared incompatible with philosophy (*ibid.*, 300). It is clear that dispossession was an important ideal for Sextus, and his Christian readers found it adamantly expressed in his work.

Since the *Sentences of Sextus* draw a connection between lack of possessions and self-sufficiency, it is not surprising that they also link the lack of possessions to freedom, ἐλευθερία, apparently not juridical but moral freedom, in line with

20 Luke 6:20 and Matth 5:3: “Blessed are the poor; for the kingdom of heaven / of God belongs to them / you.” While in Matthew those who are declared to be blessed are “the poor in spirit” (οἱ πτωχοὶ τῷ πνεύματι), in Luke the qualifier “in spirit” is absent: Μακάριοι οἱ πτωχοί, ὅτι ὑμετέρα ἐστὶν ἡ βασιλεία τοῦ Θεοῦ, thus, the blessed are the poor *tout court*. See also Jesus’ declaration that, “It is easier for a camel to pass through the eye of a needle than for a rich person to enter the kingdom of God” (Matth 19:24; Mark 10:25; Luke 18:25).

21 Pevarello 2013, 132.

22 On this, see Ramelli 2012.

the Stoic tradition. In *Sext. Sent.* 263–264b, life according to self-sufficiency (κατὰ τὸν αὐτάρκη, sic) implies leaving one's possessions (ἀφείς ἃ κέκτησαι) to follow the right *logos* – which is both the philosophical *logos* and, for the Christian redactor and his readers, Christ-Logos. In this way, one will be free (ἐλεύθερος) from everything and will rather be a slave of God (δουλεύων θεῷ). This last detail probably comes from the biblical and Christian tradition, where being enslaved to God is the only really good kind of slavery. Elsewhere, in *Sext. Sent.* 17 and 275, Sextus opposes the possession of wealth, which is better to lose, to true freedom, the freedom of the philosopher, which is never to be lost. And in *Sext. Sent.* 76 Sextus, like the *Pythagorean Sentences* 110c, denounces love of money (φιλοχρηματία) as a symptom of love of the body (φιλοσωματία), seen as negative in an ascetic perspective, the two notions of φιλοσώματος and φιλοχρήματος being associated already in Plato, *Phaedo* 68b–c. The insistence on complete dispossession as an ideal for the sage makes Sextus' asceticism – which was based both on Greek philosophical asceticism and Jesus's aforementioned exhortation to voluntary poverty – a rather radical ideal, as that of several Christian monastic ascetics would be.²³ Daniele Pevarello correctly remarks, "Sextus depicts voluntary poverty as a distinctive feature of moral excellence. This step marks an important stage in the development of the Christian understanding of voluntary poverty, anticipating and enabling the ascetic severity of monastic poverty as a sign of true wisdom and affirmation of one's freedom from the world and dominion over it."²⁴ What is especially noteworthy, I find, is that ascetic practices such as dispossession and fasting are said to be in the service of the poor (*Sext. Sent.* 267). The underlying assumption is that owning too much, that is, owning possessions beyond one's needs, immediately means withdrawing resources from the poor in a real theft, and being therefore guilty of injustice. This will be maintained by Origenian ascetics such as Origen himself, Gregory of Nyssa, Evagrius, and John Chrysostom.²⁵ Sextus' position with respect to voluntary poverty as a mark of the Christian sage seems indeed close to Origen's line and more rigorous than that of Clement of Alexandria.

What is most interesting for the investigation into the relation between asceticism and the rejection of slavery and social injustice that leads to poverty, in the *Sentences of Sextus* and presumably in the circles influenced by them, is that asceticism is related not only to piety and friendship with God (*Sext. Sent.* 86a–b), but

23 Pevarello 2013, 205, questions the opinions of scholars such as Edwards / Wild 1981 and others, who regard the *Sentences* as an expression of a mild form of asceticism, open to compromise with everyday life. Likewise Osborn 1976, 81, correctly noted that, "Sextus has a much stronger ascetic strain than Clement" of Alexandria, especially with reference to his *Quis dives salvetur*. Indeed, Sextus appears to be closer to the line later taken by Origen and Evagrius.

24 Pevarello 2013, 132.

25 Ramelli 2016.

also to love for human beings,²⁶ respect and solidarity with them, and renouncing their oppression. In this perspective, it would seem that something more was at work than the mere principle of ἀκτημοσύνη, however radical. In *Sext. Sent.* 370–372 it is stated that whoever commits injustice (ἀδικῶν) against a human being cannot worship God. The verb is the same as in the principle maintained by Origen, Gregory of Nyssa, John Chrysostom, and Evagrius that it is impossible to become or be rich – that is, to possess more than the necessary – without committing injustice (ἀδικοῦντα) against other humans who are thereby left without the necessary.²⁷ Sextus goes on to explain that piety toward God is grounded in love of humanity (φιλανθρωπία), care for human beings (προνοῶν ἀνθρώπων), and prayer for all (ὑπὲρ πάντων). In this perspective, renouncing riches that imply poverty for other fellow humans, as well as giving up slave ownership, would seem to be not simply a matter of dispossession, but also of love and respect for fellow human beings. Gregory of Nyssa's attitude was along these lines, though probably more radical: he advocated not simply voluntary poverty, but also respect and love for fellow humans as images of God and all endowed with the very same dignity, just as the three persons of the Trinity are ὁμότιμοι with one another.²⁸ However, the *Sentences of Sextus*, like the Stoics, never explicitly criticise slave ownership, and the same sentences, *Sext. Sent.* 370–372, could also be used in a much less radical fashion by a Neoplatonist ascetic, Porphyry, who grounded in them not the necessity of renouncing outright the keeping of slaves, but the necessity of behaving justly and generously with one's slaves (*Letter to Marcella* 35).²⁹

For Sextus, love of humanity also implies that one should not amass wealth (*Sext. Sent.* 300), presumably on account of the above-mentioned principle that whatever exceeds one's needs is in fact stolen from other people's needs. According to him, asceticism and piety must result in being beneficial to fellow humans (ἢ ἀνθρώποις εὐεργεσία, 47). Gregory of Nyssa, again, took the same line. He was adamant that ascetic practices, such as fasting, are completely useless if the subject is not benefiting, but rather oppressing, fellow human beings, for instance through usury, or the refusal to share one's wealth, or by keeping slaves. Asceticism aims for purification, but Sextus is clear that the best form of purifica-

26 Clement of Alexandria, *Strom.* 7.13.4–14.1, likewise associates θεοσέβεια with φιλανθρωπία, but not asceticism.

27 Full documentation for this Patristic principle (οὐκ ἔστιν, οὐκ ἔστιν, μὴ ἀδικοῦντα πλουτεῖν, "it is utterly impossible to be rich without committing injustice," John Chrysostom, Homily on 1 Tim 12:3–4 PG 62.561–564) in Ramelli 2016.

28 See Ramelli 2012.

29 I deem probable Irini Fotini Viltanioti's thesis that Porphyry had direct knowledge of the *Sentences of Sextus* (besides the *Pythagorean Sentences*). See her paper in this volume, where she also suggests – following Sodano's and, in part, Whittaker's hypotheses – that Porphyry was deliberately responding to Sextus' Christian appropriation of Pythagorean moral wisdom. This is quite possible; for, although we have seen how discreet Sextus's own Christianisation of Pythagorean asceticism was, Porphyry was surely aware of the success that the *Sentences of Sextus* were enjoying among prominent and influential Christian intellectuals such as Origen.

tion is – again – not to commit injustice against anyone (τὸ μηδένα ἀδικεῖν, 23). Indeed, *apatheia*, the goal of asceticism, goes hand in hand with benefiting all humans (κοινὸς ἀνθρώπων εὐεργέτης) and avoiding mistreating them (κακῶς χρῶμενος, κακῶς ποιήσει, *Sext. Sent.* 209–212).

This is the main way in which the significant Christian transformation and assimilation of Pythagorean philosophical asceticism presented in the widely circulated *Sentences of Sextus* inspired the Origenian line of philosophical asceticism, which was already present in Philo “the Pythagorean” (according to Clement), was then central in Origen and in Origen’s admirer Eusebius of Caesarea in his portraits of Philo, St. Pamphilus, and Origen, and became especially evident in Origen’s faithful follower, Gregory of Nyssa, and in Gregory’s disciple Evagrius Ponticus.³⁰

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30 On Evagrius as disciple of Gregory of Nyssa, see Ramelli 2013a. For a comparison of Gregory’s and Evagrius’s principles of asceticism, see Corrigan 2009, esp. 53–102.

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Porphyry's *Letter to Marcella**

A Literary Attack on Christian Appropriation of (Neo)Pythagorean Moral Wisdom?

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1 Introduction

The *Letter to Marcella* is generally considered to be one of Porphyry's latest works, composed around AD 300, a few years before the philosopher's death around AD 305 (the *Suda* attests he lived up to the time of Diocletian).¹ However, this date is not certain, since the only internal evidence – Porphyry's own claim that he declined into old age (εἰς τὸ γήραος ἀποκλίναντι)² – is not clear. Hence, Aaron Johnson³ has recently expressed some doubts, suggesting that Porphyry may have been younger than is generally assumed when he wrote the letter. Furthermore, Porphyry mentions that he composed the letter while he was away, called by "the need of the Hellenes" (καλούσης δὲ τῆς τῶν Ἑλλήνων χρείας).⁴ The allusive nature of this phrase does not allow us to go further than mere speculation. As Johnson⁵ points out, there is no evidence for the hypothesis that "the need of the Hellenes" refers to Porphyry's journey to Diocletian's court in Nicomedia to attend the secret deliberations preparing the so-called Great Persecution launched on February AD 303.⁶ Without entering into this debate, I would add that this hypothesis is in tension with the philosopher's spiritual path and ascetic ideal. From this point view, Johnson's⁷ proposal to read the "need of the Hellenes" in an educational, academic context seems preferable.

Porphyry addresses his letter to his wife Marcella, the widow of a friend and mother of seven children. Except for the information provided by the letter and some references in later biographies that depend on it, we do not know who Marcella was, whether she was Roman or not,⁸ or when Porphyry married her. It

* I am grateful to Jan Bremmer for written comments. I also thank David Yates and Tamer Nawar for revising the English.

1 Smith 2011, XIV 721.

2 Marc. 1, 6, 9–10 Pötscher.

3 Johnson 2013, 20–21.

4 Marc. 9, 8, 22–23 Pötscher.

5 Johnson 2013, 21.

6 Chadwick 1959, 142; Wilken 1979; Beatrice 1993; DePalma Digeser 2012.

7 Johnson 2013, 21, 250–251.

8 Chadwick 1959, 142; Whittaker 2001, 150–151; Sodano 2006², 39–40; Johnson 2013, 280.

must however be said that there is no hint of her being a literary fiction. The ostensible purpose of the letter is to console Marcella for Porphyry's absence, and to encourage her to make progress in the spiritual path of ascent towards virtue and wisdom. The central topic is, in fact, virtue, wisdom, and assimilation to God through philosophy and contemplation. Within this context, Porphyry's words often echo Pythagorean maxims.

The question I will endeavour to answer in this paper is how these Pythagorean echoes relate to the purpose of the *Letter to Marcella*. I will argue that Porphyry's use of Pythagorean maxims in this letter, composed in the form of a "spiritual guide"⁹ ostensibly addressed to Marcella but in reality destined for a wider audience, is a response to the Christian appropriation of pagan, especially Pythagorean, moral wisdom. Porphyry forges his response by re-appropriating this wisdom and by re-situating it within the context of its original pagan source. In what follows, I will first give a brief survey of the extant interpretations of the letter's purpose and then argue that the letter has a double purpose, both pedagogical and anti-Christian.

2 The purpose of the *Letter to Marcella*

Several views have so far been advanced with regard to the letter's purpose. Bidez¹⁰ considers it to be Porphyry's response to Marcella's sense of depression over her husband's departure. However, there is no hint in the text that Porphyry is replying to a letter from his wife. Further, Bidez considers that the letter was to be circulated to a wider audience and reads it partly as Porphyry's apology for his marriage and partly as a spiritual guide inspired by traditional wisdom. Similarly, Chadwick¹¹ calls the letter an *apologia pro nuptiis suis*, arguing that Porphyry's primary purpose would have been to defend himself against the accusations mentioned in the first chapter of the letter. In addition, Porphyry would have intended to give his wife "advice in the form of a succession of religious and moral aphorisms."¹² Pötscher¹³ takes it for granted that the letter was to be circulated to a wide readership. Des Places¹⁴ believes that Porphyry's purpose was to console Marcella as well as to offer a treatise on the spiritual life and a guide to philosophical religion. However, he does not directly engage with the problem of the letter's intended readership. Rousselle¹⁵ and Wilken¹⁶ are inclined to see it as a private letter, and Saffrey¹⁷ also considers that the letter was primarily addressed

9 Johnson 2013, 182.

10 Bidez 1913, 112–116.

11 Chadwick 1959, 142–143.

12 Ibid., 143.

13 Pötscher 1969, 50.

14 Des Places 1982, 89.

15 Rousselle 1983, 228.

16 Wilken 2003, 134.

17 Saffrey 1992, 56.

to Marcella. O'Brien Wicker¹⁸ thinks it could be considered a private letter, since she finds no hint of its being addressed to a wider readership. Nevertheless, she acknowledges that this hypothesis does not accord with the great care Porphyry obviously took in its composition. More consistent with the letter's carefully crafted structure is Alt's¹⁹ view. Alt proposes that it was directed to those who, like Marcella, were concerned with pursuing a philosophical way of life. Similarly, according to Edwards,²⁰ besides self-justification, Porphyry's aim is to offer "an epitome of practical philosophy for any disciple who had been suddenly left to his own devices."²¹ Likewise, Johnson, in his recent monograph, stresses the letter's pedagogical role, characterizing it as a "didactic and hortatory letter embodying a pedagogy of privilege and marking out the limits of learning to the few," that is to a "philosophical novitiate readership."²² What the above interpretations have in common is, I submit, the fact that they disregard the letter's anti-Christian perspective, as expressed through various allusions as well as through a striking number of passages echoing Christian literature. Even Edwards, who draws a series of analogies between Porphyry's letter and those of Paul, concludes that these analogies illustrate only "the incommensurability between the two forms of piety."²³

The letter's anti-Christian perspective has been pointed out by Sodano and Whittaker. Sodano made a breakthrough in our understanding of the letter by drawing attention to the great number of parallels between, on one hand, the *Letter to Marcella* and, on the other, the letters of Jacob, Paul, and Peter, the *Acts*, and the gospels of Matthew and John.²⁴ Thus, according to Sodano, the letter's purpose is to defend paganism by showing that, "Christianity is not innovative," but, on the contrary, draws its ideas from the austerity, dignity, and ascetic spirit of Greek culture.²⁵ Working independently of Sodano, Whittaker²⁶ likewise concluded that the letter should be considered in light of Porphyry's anti-Christian polemic. She proposes that it was intended for readers attracted to Christianity or in danger of being so. On her account, Porphyry has chosen the epistolary form because it is more suitable for promulgating ideas to a wide audience. He ostensibly addresses it to Marcella because the particular appeal of Christianity to women was a commonplace²⁷ and because a personalized message is always more compelling.

18 O'Brien Wicker 1987, 12.

19 Alt 1997, 25–16, 30–31.

20 Edwards 2006, 156–161.

21 Ibid., 157.

22 Johnson 2013, 183.

23 Edwards 2006, 159.

24 Sodano 2006², 26–30.

25 Ibid., 25.

26 Whittaker 2001.

27 As Bremmer 1989 has shown, Christianity made inroads not just in the world of women, but especially among intellectual women.

In the wake of Whittaker's reading, one could perhaps take a step further and suggest a more subtle implication: by making his dedicatee a woman, Porphyry could have been playing upon the old Pythagorean association of female with darkness and matter, alluded to in chapter 33,²⁸ to imply (and to warn against) the darkness and excessive attachment to the material body threatening souls attracted to Christianity. Whatever the case, it is difficult to judge whether the letter was addressed to those attracted to Christianity in general or specifically to women. It seems reasonable to me that, even if his principal intended audience had been female, Porphyry would naturally have sought to reach the widest possible readership, in order to promulgate his anti-Christian ideas and defend paganism more efficiently. I submit that the letter's pedagogical purpose should be considered within this anti-Christian framework. Porphyry's pedagogical aim would have been to instruct those who were in quest of spiritual perfection, by orientating them towards true philosophy and towards the high ideals of Greek culture, while preventing them from being attracted to Christianity. After all, ever since Paul's discourse in the Areopagus, Christianity had been systematically appropriating Greek ideas, adapting them within its own ideological framework, and subsequently using them for its own anti-pagan propaganda.²⁹ Now, in the *Letter to Marcella*, Christians would have been confronted with a reversal of their strategy, namely pagan re-appropriation of Greek ideas previously used by Christian authors. The re-appropriation of Greek Pythagorean wisdom is further combined with anti-Christian attacks, the whole being presented as intimate correspondence containing instructions in virtue and assimilation to God.

The question I will attempt to answer in what follows is how Pythagorean echoes figure in this purpose. To that end, I will first refer to Pythagoreanism in Porphyry's letter.

3 Pythagoreanism in the *Letter to Marcella*

As has already been observed, the most significant feature of the *Letter to Marcella* is the use of maxims whose parallels are to be found in various sources. The majority of parallels occur in the following two sources: first, an alphabetical collection of Pythagorean maxims dating from the first to the third centuries AD, reconstructed and edited by Chadwick on the basis of three Greek manuscripts, one from Patmos (10th century), another from Vienna (15th century) and a third from the Vatican (16th century); and, second, in the Christian collection of the *Sentences of Sextus*, which is first mentioned by Origen (ca. AD 184–254) in the mid-third century, and which is probably to be dated around AD 180–210. The latter has also been edited by Chadwick, who characterizes it as "one of the most remarkable monuments of second century Christian piety,"³⁰ and, more recently, by

28 Marc. 33, 36, 18–19 Pötscher: φεῦγε τῆς ψυχῆς πᾶν τὸ θηλυνόμενον, ὡς εἰ καὶ ἄρρενος εἶχες τὸ σῶμα περικείμενον.

29 On the case of Christian appropriation of Orphism, cf. Herrero de Jáuregui 2010, 243–246.

30 Chadwick 1959, 116.

Wilson.³¹ Rufinus of Aquileia, who translated Sextus' *Sententiae* into Latin at the end of the fourth century, identifies their author as Pope Xystus II; however, some years later, Jerome notes that the author was Sextus the Pythagorean.³² In reality, the collection is the work of a Christian compiler who has carefully revised and modified a previous pagan collection or, most probably, collections, adapting them within the Christian ideological framework.³³ It is noteworthy that there is nothing spectacularly Christian or pagan in Sextus' collection.³⁴ As Chadwick proposes, the motive underlying this absence could be related to the compiler's purpose, who would have intended to envelop Christian doctrine in the garment of pagan, distinctively Pythagorean, wisdom, in order to make the former more appealing to those who were prejudiced against Christianity. He notes:

The Christian touches are so carefully and subtly made that the plan must have been deliberate ... There is a single mind behind the compilation and the work of revision ... and his purpose is evident; it is to bring the moral wisdom of Greek sages under the wing of the church to whom all truth belongs. With adjustments here and there the language of Stoic or Pythagorean wisdom could pass in Christian circles. *Pythagoras saepe noster* might be his motto.³⁵

In addition to the *Pythagorean Collection* and to that of Sextus, a more limited number of maxims in the *Letter to Marcella* are found in three other sources: the *Collection of Cleitarchus*, dating back to the second or third century AD and again edited by Chadwick,³⁶ an Epicurean collection (*Marc.* 27–31), which Chadwick associates with Neopythagorean circles;³⁷ and, finally, the anthology compiled in the fifth century by Stobaeus, who, among other things, preserves fifteen maxims of the Vienna collection, attributing them to Pythagoras and arranging them in alphabetical order.

However, the majority of parallels with the *Letter to Marcella* are found in Sextus and the *Pythagorean Collection*. In fact, the number of parallels occurring in Porphyry's letter, in Sextus, and in the alphabetical *Pythagorean Collection*, is so large that it poses "a synoptic problem of the greatest complexity," as already pointed out by Chadwick.³⁸ Thus, Chadwick³⁹ and Sodano⁴⁰ conclude that Porphyry and Sextus drew independently on a prior pagan collection, from which the alphabetical *Pythagorean Collection* is a secondary development. It would be

31 Wilson 2012.

32 Ibid., 137.

33 Ibid., 138. See also Ilaria Ramelli's learnt article in this volume.

34 Ibid.

35 Ibid., 159–160.

36 Ibid., 73–83.

37 Ibid., 149.

38 Ibid., 144.

39 Ibid., 148.

40 Sodano 2006, 35.

impossible to take into account all the aspects of this complex problem in the present paper. Nevertheless, it may be observed that, as shown by the synoptic table (see below), in the remaining parts of the *Letter to Marcella*, interrupted in Chapter 35, Porphyry quotes 43 of the 123 maxims of the *Pythagorean Collection*. 22 of them are common to Porphyry and to Sextus, in whose collection are contained, according to Chadwick's catalogue, 45 *sententiae* of the alphabetical *Pythagorean Collection*. 21 maxims of the latter occur only in Porphyry, while 23 occur only in Sextus.

Why would there be such emphasis on Pythagoreanism in both Sextus and Porphyry? Regarding the former, it is likely that the ascetic and austere Pythagorean spirit would have been considered to be well suited to Christian ideology. Hence, Pythagorean maxims would provide the compiler with the ideal material to attract pagan worshippers to Christianity. The question is more complex with Porphyry. Some explanations for the use of Pythagorean maxims in the *Letter to Marcella* have already been offered. Chadwick thinks that this use is motivated by Porphyry's "profound respect for ancient lore and the wisdom of philosophers" of the remote past.⁴¹ Smith notes that "the many Pythagorean echoes . . . in the 'Letter to Marcella' show clearly the important role which Porphyry attached to Pythagoreanism in moral and spiritual formation."⁴² Johnson notes that, "in a letter whose second half consists of a pastiche of Pythagorean sayings, the esoteric tendencies central to the Pythagorean way of life are fitting."⁴³

However, the above explanations face two basic difficulties. First, they downplay the anti-Christian function of the *Letter to Marcella*, thoroughly demonstrated by Sodano and Whittaker. In other words, they do not address the question of how Pythagoreanism fits with the anti-Christian scope. Second, they do not take into account Porphyry's preference for the alphabetical *Pythagorean Collection* and the parallels with Sextus. Porphyry's interest in the Pythagorean tradition and his respect towards this ancient form of wisdom is not sufficient to explain his predilection for this specific collection. If his interest in Pythagoreanism is his only motivation, why are Pythagorean maxims quoted in his *Life of Pythagoras* or known from other sources absent from the *Letter to Marcella*?

With respect to the anti-Christian scope, Sodano's explanation seems more convincing. Sodano thinks that Porphyry intended to compose a kind of anti-gospel by drawing from the source of Pythagorean wisdom and opposing Pythagoras to Jesus Christ. In other words, on his account, Pythagoras was chosen as "the best alternative to Christ."⁴⁴ Three reasons are given for this choice: first, the acknowledgement of the debt of Platonism to Pythagoreanism; second, Pythagorean ethics and piety as well as the austerity, severity, and dignity of the Pythagorean spirit; third, the hypothesis that the letter reflects the ideas of a Neopythag-

41 Chadwick 1959, 143.

42 Smith 2011, XIV 761.

43 Johnson 2013, 183.

44 Sodano 2006, 36.

orean circle whose Porphyry and Marcella were members and which could be compared to the group which, in the first century BC, used to meet in the Basilica of the Porta Maggiore⁴⁵ in Rome. Sodano's interpretation has the merit of taking into account the letter's anti-Christian purpose. In addition, the hypothesis of a Pythagorean Porphyry is attractive. Further, the idea that Pythagorean ethics, piety, ascetic austerity, and dignity are not inferior to Christian principles, is not in doubt. However, Sodano's explanation neglects the fact that, as underlined below, more than half of the Pythagorean sayings in what remains of Porphyry's *Letter to Marcella* occur also in the collection of Sextus, with whom Porphyry shares a significant number of further parallels.

I submit that this can hardly be a coincidence. I propose that Porphyry's choice of Pythagorean sayings in his letter was largely determined by Sextus' use of Pythagorean sayings. It is likely that Porphyry, so well informed about Christian literature and so committed to refuting it, would have known Sextus' collection and would have been troubled by its great success among those who, in quest of spiritual perfection, were attracted to Christianity through the *sententiae* of Sextus. The Pythagorean material in Sextus' collection would not have escaped Porphyry's attention. The philosopher might hence have chosen most of the Pythagorean maxims cited in his letter on account of Sextus' use of those maxims. In other words, it is not impossible that Porphyry had before his eyes not only the earlier Pythagorean collection (the source of the extant alphabetical collection) that served as a common source for him and for Sextus, but also Sextus' Christian compilation itself, and that he deliberately incorporated in the *Letter to Marcella* a large number of Pythagorean maxims quoted by Sextus. I suggest that, by this means, Porphyry would have intended to re-appropriate the Pythagorean moral wisdom previously appropriated by the Christians, by resituating it within its original pagan context. A great part of his project in the *Letter to Marcella* would thus have been a carefully crafted literary attack on Christian appropriation of Pythagoreanism, an attack cunningly dissimulated under the garment of intimate correspondence. The letter's purpose would have been to defend Hellenism against Christianity, and, within this distinctively anti-Christian framework, would thus have been pedagogical. Among other things, and, perhaps, above all (given the extent of the Pythagorean echoes), Porphyry would have aimed to profess the Hellenism of Pythagoreanism against its Christian appropriation, as well as to prevent readers from being attracted to Christianity through Christian plagiarism of Pythagorean wisdom. The intended readership would have been broad enough to encompass all those who were attracted to Christianity – mostly women but men as well – through Christian reading material in general, and, more precisely, through the widely studied compilation of Sextus, with which the *Letter to Marcella* has so many parallels.

45 Carcopino 1943.

4 Conclusion

Did Porphyry succeed in his effort to prevent Christianity from appropriating Pythagorean moral wisdom? No. Pythagoreanism had already taken root in Christian soil, and growth would follow within the idiosyncratic ideological framework of Christianity. I will not deal with the transformations of Pythagorean wisdom in the Christian era here. However, taking a huge step in time, it would be tempting to compare some maxims of the alphabetical *Pythagorean Collection* with contemporary Orthodox aphorisms attributed to modern holy men of Mount Athos and contained in widespread and widely appreciated popular collections, which could be compared to that of Sextus. Here are some of these aphorisms: "The more you labour, the more pleasure and grace you will enjoy;" "Salvation is not a matter of convenience or coincidence but a matter of labour;" "Evil begins with evil thoughts;" "All problems derive from dependence on passions;" "Set limits to your material needs;" "The pleasures of the soul are different from the pleasures of the body;" "Man's nature is to be with God;" "Those who find rest in the material world and are not concerned with the salvation of their soul resemble reckless little birds which do not make an effort to break their egg's shell in order to get out and enjoy the sunshine, but stand still and die within the egg;" and many more. Of course, similarities are probably due to indirect continuity rather than conscious appropriation. However, on this last point, I could recall the advice a Greek Orthodox monk gave me some years ago referring to my study of Pythagoreanism. "Study it thoroughly," he said, "because, if you do, you will become a good Christian." *Pythagoras saepe noster*, as Chadwick observed. Hence, in conclusion, Porphyry lost. Yet, nonetheless, this is a story of victory: by conquering new, fertile ground, Pythagoreanism won.

Synoptic table of the sentences occurring in Porphyry's *Letter to Marcella*, in the Pythagorean Collection and in Sextus⁴⁶

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
5		
<i>Marc.</i> 5, p. 10, 16–17: οὐ διὰ ῥαστώνης ἢ τῶν ὄντως ὄντων ἀγαθῶν κτῆσις τοῖς ἀνθρώποις περιγίνεται.	P 31: ἢ τῶν ὄντως ὄντων κτῆσις διὰ ῥαστώνης οὐ παραγίνεται.	Omitted
7		
<i>Marc.</i> 7, p. 12, 23–24: ἔδοξε τοῖς σώφροσι τὰ ἐπίπονα τῶν ἡδέων μᾶλλον συντελεῖν εἰς ἀρετήν.	P 101: τὰ ἐπίπονα τῶν ἡδέων ἡγοῦ μᾶλλον συντελεῖν εἰς ἀρετήν.	Omitted
<i>Marc.</i> 7, p. 12, 26–27: παντὸς γὰρ καλοῦ κτῆματος πόρους δεῖ προηγέσθαι.	P 78: παντὸς καλοῦ κτήματος πόνος προηγεῖται ὁ κατ' ἐγκράτειαν ⁴⁷ .	Omitted ⁴⁸
<i>Marc.</i> 7, p. 14, 3–5: οὐ γὰρ ἐκ τῶν δι' ἡδονῆς βεβιωκότων ἀνθρώπων αἱ εἰς θεὸν ἀναδρομαί, ἀλλ' ἐκ τῶν τὰ μέγιστα τῶν συμβαινόντων γενναίως διενεγκεῖν μεμαθηκότων.	P 72: οὐκ ἐκ τῶν δι' ἡδονῆς βεβιωκότων αἱ εἰς θεοὺς ἀναδρομαί, ἀλλ' ἐκ τῶν τὰ μέγιστα πεπονηκότων ἐγκρατῶς καὶ τὰ συμβαίνοντα ἐνεγκεῖν μεμαθηκότων.	Omitted

⁴⁶ I have used Chadwick's catalogue (1959, 144–146) and Sodano's synoptic tables (2006², 127–133), but the above synoptic table differs from both.

⁴⁷ Cf. Iamb. *VP* 85: ἀγαθὸν οἱ πόνοι, αἱ δὲ ἡδοναὶ ἐκ παντὸς τρόπου κακόν· ἐπὶ κολάσει γὰρ ἐλθόντας δεῖ κολασθῆναι. Ibid. 84: φορτίον μὴ συγκαθαίρειν (οὐ γὰρ δεῖ αἷτιον γενέσθαι τοῦ μὴ πονεῖν) συνανατιθέναι δὲ. Porph. *VP* 42: φορτίον δὲ συνανατιθέναι μὲν τοῖς βαστάζουσιν, συγκαθαίρειν δὲ μή, δι' οὗ παρήνει μηδενὶ πρὸς ῥαστώνην, ἀλλὰ πρὸς ἀρετὴν συμπράττειν.

⁴⁸ On the value of labour, cf. S 125: ὧν ἡγεμόνες οἱ πόνοι, ταῦτά σοι εὖχου γενέσθαι μετὰ τοὺς πόρους. Porph. *Marc.* 12, p. 18, 14–15: καὶ ὧν ἡγεμόνες οἱ μετ' ἀρετῆς πόνοι, ταῦτα εὐχόμεθα γενέσθαι μετὰ τοὺς πόρους.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
8		
Marc. 8, 15–19: τίνα οὖν ἦν ἄρα, ἃ παρὰ τῶν σαφέστατ' εἰδότην τὰ κατ' ἀνθρώπους μεμαθήκαμεν; ἄρ' οὐχ, ὅτι μὲν σοὶ ἐγὼ οὐχ ὁ ἀπτός οὗτος καὶ τῇ αἰσθήσει ὑποπτωτός, ὁ δὲ ἐπὶ πλεῖστον ἀφεστηκώς τοῦ σώματος, ὁ ἀχρώματος καὶ	P 74: ὁ ὡς ἀληθῶς [-ῆς MS] ἄνθρωπος ἐστὶν οὐχ ὁ ἀπτός καὶ τῇ αἰσθήσει ὑποπτωτός, ὁ δὲ ἐπὶ πλεῖστον ἀφεστηκώς τοῦ σώματος, ὁ ἀχρώματος καὶ ἀσχημάτιστος καὶ χερσὶ μὲν οὐδαμῶς ἀπτός, διανοίᾳ δὲ κρατητός.	Omitted
9		
Marc. 9, p. 14, 22–25: ^a πᾶν πάθος ψυχῆς εἰς σωτηρίαν αὐτῆς πολεμιώτατον. ^b καὶ ἀπαιδευσία μὲν τῶν παθῶν πάντων μήτηρ ^c τὸ δὲ πεπαιδεῦσθαι οὐκ ἐν πολυμαθείας ἀναλήψει, ἐν ἀπαλλάξει δὲ τῶν ψυχικῶν παθῶν ἐθεωρεῖτο.	P 2: ^b πᾶν δὲ πάθος ψυχῆς εἰς σωτηρίαν πολεμιώτατον. Cf. P 116: ψυχῆς πᾶν πάθος εἰς σωτηρίαν αὐτῆς πολεμιώτατον. ^a ἀπαιδευσία πάντων τῶν παθῶν μήτηρ. ^c τὸ δὲ πεπαιδεῦσθαι οὐκ ἐν πολυμαθείας ἀναλήψει, ἐν ἀπαλλάξει δὲ τῶν ψυχικῶν παθῶν θεωρεῖται.	S 205: πᾶν πάθος ψυχῆς λόγῳ πολέμιον.
11		
Marc. 11, p. 18, 3–4: θεὸς μὲν γὰρ δεῖται οὐδενός, σοφὸς δὲ μόνου θεοῦ.	P 39: ^a θεὸς δεῖται οὐδενός· σοφὸς δὲ μόνου δεῖται θεοῦ.	S 49: ὁ μὲν θεὸς οὐδενός δεῖται, ὁ δὲ πιστός μόνου θεοῦ⁴⁹.

49 Cf. Clitarch. 4, p. 76 Chadwick.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
12		
<i>Marc.</i> 12, p. 18, 16 - 17: ἀ δὲ κτησαμένη οὐ καθέξεις, μὴ αἰτοῦ παρὰ θεοῦ· δῶρον γὰρ θεοῦ πᾶν ἀναφαίρετον· ὥστε οὐ δώσει, ὃ μὴ κατέξεις.	P 3: ἀ κτησάμενος οὐ κατέξεις, μὴ αἰτοῦ παρὰ θεοῦ· δῶρον γὰρ θεοῦ πᾶν ἀναφαίρετον· ὥστε οὐ δώσει ὃ μὴ κατέξεις.	S 92: ἀ δίδωσιν ὁ θεός, οὐδεὶς ἀφαιρεῖται = S 404: ὅσα δίδωσιν ὁ θεὸς οὐδεὶς ἀφαιρεῖται⁵⁰. Cf. S 118: κτῶ ἀ μηδεὶς σου ἀφαιρεῖται. S 128: ὁ κτησάμενος οὐ κατέξεις, μὴ αἰτοῦ παρὰ θεοῦ.
<i>Marc.</i> 12, p. 18, 18–19: ^a ὧν δὴ τοῦ σώματος ἀπαλλαγεῖσα οὐ δεηθήσῃ, ἐκείνων καταφρόνει· ^b καὶ ὧν ἂν ἀπαλλαγεῖσα δεηθῇς, ταῦτά σοι ἀσκουμένη τὸν θεὸν παρακάλει γενέσθαι συλλήπτορα.	P 121: ^a ὧν τοῦ σώματος ἀπαλλαγεῖς οὐ δεήσῃ, ἐκείνων καταφρόνει πάντων· ^b καὶ ὧν ἀπαλλαγεῖς δεήσῃ, πρὸς ταῦτά σοι ἀσκουμένῳ τοὺς θεοὺς παρακάλει γενέσθαι συλλήπτορας	S 127: ὧν τοῦ σώματος ἀπαλλαγεῖς οὐ δεήσῃ, κα- ταφρόνει.
<i>Marc.</i> 12, p. 18, 20: οὐκ οὐν δεήσῃ οὐδενός, ὧν καὶ ἡ τύχη δοῦσα πολλάκις πάλιν ἀφαιρεῖται.	P 120: ὧν ἡ τύχη κυρία καὶ δοῦναί καὶ ἀφελέσθαι οὐ δεήσῃ οὐδενός.	Omitted

50 Cf. Clitarch. 22, p. 77 Chadwick.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
13		
Marc. 13, p. 20, 3–5: ^a σοφὸς δὲ ἄνθρωπος ὀλίγοις γινωσκόμενος, εἰ δὲ βούλει, ^b καὶ ὑπὸ πάντων ἀγνοούμενος, γινώσκεται ὑπὸ θεοῦ.	P 92: ^a σοφὸς ἄνθρωπος καὶ θεὸν σεβόμενος γινώσκεται ὑπὸ τοῦ θεοῦ· ^b διὸ οὐδὲ ἐπιστρέφεται κἄν ὑπὸ πάντων ἀνθρώπων ἀγνοῖται⁵¹.	S 145: σοφὸς ὀλίγοις γινώσκεται.
14		
Marc. 14, p. 20, 10: αἰρετωτέρου σοι ὄντος λίθον εἰκὴ βαλεῖν ἢ λόγον.	P 7: αἰρετώτερόν σοι ἔστω λίθον εἰκὴ βάλλειν ἢ λόγον ἀργόν⁵².	S 152: αἰρετώ- τερον λίθον εἰκὴ βάλλειν ἢ λόγον⁵³.
Marc. 14, p. 20, 12–19: ^a ἀδύνατον τὸν αὐτὸν φιλόθεόν τε εἶναι καὶ φιλήδονον καὶ φιλοσώματον. ^b ὁ γὰρ φιλήδονος καὶ φιλοσώματος, ^c ὁ δὲ φιλοσώματος πάντως καὶ φιλοχρήματος, ^d ὁ δὲ φιλοχρήματος ἐξ ἀνάγκης ἄδικος, ^e ὁ δὲ ἄδικος καὶ εἰς θεὸν καὶ εἰς πατέρας ἀνόσιος καὶ εἰς τοὺς ἄλλους παράνομος.	P 110: ^a φιλήδονον καὶ φιλοσώματον καὶ φιλόθεον τὸν αὐτὸν ἀδύνατον εἶναι· ^b ὁ γὰρ φιλήδονος καὶ φιλοσώματος· ^c ὁ δὲ φιλοσώματος καὶ φιλοχρήματος· ^d ὁ δὲ φιλοχρήματος ἐξ ἀνάγκης καὶ ἄδικος· ^e ὁ δὲ ἄδικος εἰς μὲν θεὸν ἀνόσιος, εἰς δὲ ἀνθρώπους παράνομος·	S 76: φιλοχρη- ματία φιλο- σωματίας ἐλεγχος.

51 For a similar claim concerning not wisdom but justice, cf. Pl. *Resp.* 612e f. Another Pythagorean idea is to be found in *Marc.* 13, p. 18, 26–27: ταῦτ' οὖν θέλε καὶ αἰτοῦ τὸν θεὸν ἃ θέλει τε καὶ ἔστιν αὐτός. Cf. *Iamb. VP* 145: βουλοίμην μᾶλλον, ὅσ' ἂν μοι παρὰ θεῶν γένηται. *Ibid.* 137: δεῖν δὲ ὁμολόγηται παρὰ τοῦ κυρίου τάγαθὸν αἰτεῖν. The same idea occurs in *Sextus*; cf. 134: ταῦτα θέλε ἃ θέλοι ἂν καὶ ὁ θεός.

52 Cf. *Iamb. VP* 256: μηδὲν εἰκὴ λέγειν.

53 Cf. *Clitarch.* 28, p. 77 Chadwick.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
^f ὥστε καὶ ἑκατόμβας θύῃ καὶ μυρίοις ἀναθήμασι τοὺς νεῶς ἀγάλλῃ, ἀσεβῆς ἐστὶ καὶ ἄθεος καὶ τῇ προαιρέσει ἱερόσυλος. διὸ καὶ πάντα φιλοσώματον ὡς ἄθεον καὶ μιᾶρὸν ἐκτρέπεσθαι χρή.	^f ὥστε καὶ ἑκατόμβας θύῃ ὁ τοιοῦτος, πολὺ μᾶλλον ἀνοσιώτερος τέ ἐστὶ καὶ ἀσεβῆς καὶ ἄθεος καὶ τῇ προαιρέσει ἱερόσυλος· διὸ καὶ πάντα φιλήδονον ὡς ἄθεον καὶ μιᾶρὸν ἐκτρέπεσθαι χρή ⁵⁴ .	

15

<i>Marc.</i> 15, p. 20, 20 -22: ^a λόγον γὰρ περὶ θεοῦ τοῖς ὑπὸ δόξης διεφθαρμένοις λέγειν οὐκ ἀσφαλές· ^b καὶ γὰρ καὶ τάληθῇ λέγειν ἐπὶ τούτων περὶ θεοῦ καὶ τὰ ψευδῇ κίνδυνον ἴσον φέρει.	P 55: ^a λόγον περὶ θεοῦ τοῖς ὑπὸ δόξης διεφθαρμένοις λέγειν οὐκ ἀσφαλές· ^b καὶ γὰρ καὶ τάληθῇ λέγειν ἐπὶ τούτων περὶ θεοῦ καὶ τὰ ψευδῇ κίνδυνον φέρει.	S 351: Οὐκ ἀσφαλές ἀκούειν περὶ θεοῦ τοῖς ὑπὸ δόξης διεφθαρμένοις. S 352: περὶ θεοῦ καὶ τάληθῇ λέγειν κίνδυνος οὐ μικρός.
<i>Marc.</i> 15, p. 20, 25: ἀλλ' ἀκροᾶσθαι καὶ λέγειν τὸν περὶ θεοῦ λόγον ὡς ἐπὶ θεοῦ.	P 112: χρῆ καὶ λέγειν καὶ ἀκροᾶσθαι τὸν περὶ θεῶν λόγον ὡς ἐπὶ θεοῦ.	Omitted
<i>Marc.</i> 15, p. 20, 27-28: ἀνοικοιοτάτη γὰρ θεολογία κενοδοξία ψυχῆς. νόμιζε αἰρετώτερον εἶναι σιγᾶν ἢ λόγον εἰκῇ προέσθαι περὶ θεοῦ.	P 115: ψυχὴν νόμιζε αἰρετώτερον εἶναι προέσθαι ἢ λόγον βλάσφημον περὶ θεοῦ.	S 362: ψυχὴν αἰρετώτερον ἢ λόγον εἰκῇ προέσθαι περὶ θεοῦ.

54 Cf. *Iamb. VP* 122: οἱ μὲν Ὀλύμπιοι ταῖς τῶν θυνόντων διαθέσεις, οὐ τῷ τῶν θυομένων πλήθει προσέχουσιν.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
<i>Marc.</i> 15, pp. 20, 29–22, 1: ἀξίαν σε ποιήσει θεοῦ τὸ μηδὲν ἀνάξιον θεοῦ μήτε λέγειν μήτε πράττειν μήτε πάντως εἰδέναι ἀξιούν.	P 40: θεοῦ ἄξιος ἄνθρωπος ὁ θεοῦ ἄξια πράττων.	S 4: θεοῦ ἄξιος ὁ μηδὲν ἀνάξιον θεοῦ πράττων. Cf. S 5: ἐπι- τηδεύων οὖν πιστὸς εἶναι μηδὲν ἀνάξι- ον θεοῦ πρά- ξης.
<i>Marc.</i> 15, p. 22, 1: ὁ δὲ ἄξιος ἄνθρωπος θεοῦ θεῖος ἂν εἴη.	P 4: ἄξιος ἄνθρωπος θεοῦ θεὸς ἂν εἴη ἐν ἀνθρώποις.	S 376: ἄξιος ἄνθρωπος θεοῦ θεὸς ἐν ἀνθρώποις Cf. S 3: θεοῦ ἄνθρωπος ὁ ἄξιος θεοῦ.

16

<i>Marc.</i> 16, p. 22, 2–4: ^a καὶ τιμήσεις μὲν ἄριστα τὸν θεόν, ὅταν τῷ θεῷ τὴν σαυτῆς διάνοιαν ὁμοιώσης·	P 102: ^a τιμήσεις τὸν θεόν ἄριστα, ὅταν τῷ θεῷ τὴν διάνοιαν ὁμοιώσης·	S 381: τιμᾷ θεὸν ἄριστα ὁ τὴν ἑαυτοῦ διάνοιαν ἐξομοιώσας θεῷ εἰς δύναμιν.
^b ἡ δὲ ὁμοίωσις ἔσται διὰ μόνης ἀρετῆς. ^c μόνη γὰρ ἀρετὴ τὴν ψυχὴν ἄνω ἔλκει καὶ πρὸς τὸ συγγενές.	^b ἡ δὲ ὁμοίωσις ἔστι διὰ μόνης ἀρετῆς· ^c μόνη γὰρ ἀρετὴ τὴν ψυχὴν ἄνω ἔλκει πρὸς τὸ συγγενές.	

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
<i>Marc.</i> 16, p. 22, 6: κακῶν δὲ πράξεων κακὸς δαίμων ἡγεμών.	P 49: κακῶν πράξεων κακὸς δαίμων ἡγεμών.	S 305: κακῶν πράξεων κακὸς δαίμων ἡγεμών ἐστι.
<i>Marc.</i> 16, p. 22, 11–13: ^a οὐχ ἡ γλῶττα τοῦ σοφοῦ τίμιον παρὰ θεῶ, ἀλλὰ τὰ ἔργα. ^b σοφὸς γὰρ ἀνὴρ καὶ σιγῶν τὸν θεὸν τιμᾷ.	P 14: ^a γλῶττα σοφοῦ οὐ προηγουμένως τίμιον παρὰ θεῶ, ἀλλὰ τὰ ἔργα· ^b σοφὸς γὰρ καὶ σιγῶν τὸν θεὸν τιμᾷ.	S 426: Οὐχ ἡ γλῶττα τοῦ σοφοῦ τιμία παρὰ θεῶ, ἀλλ' ἡ φρόνησις. S 427: σοφὸς ἀνὴρ καὶ σι- γῶν τὸν θεὸν τιμᾷ [εἰδῶς διὰ τινα σιγᾶ].
<i>Marc.</i> 16, p. 22, 13–14: ^a ἄνθρωπος δὲ ἀμαθὴς καὶ εὐχόμενος καὶ θύων μιαίνει τὸ θεῖον. ^b μόνος οὖν ἱερεὺς ὁ σοφός, μόνος θεοφιλὴς, μόνος εἰδῶς εὐξασθαι.	P 15: ^a γλῶτταλγος ἄνθρωπος καὶ ἀμαθὴς εὐχόμενος καὶ θύων τὸν θεὸν μιαίνει. ^b μόνος οὖν ἱερεὺς ὁ σοφός, μόνος θεοφιλὴς, μόνος εἰδῶς εὐξασθαι.	S 429: ἄνθρωπος ἀκρατὴς μιαίνει τὸν θεόν.
17		
<i>Marc.</i> 17, p. 22, 14–15: καὶ ὁ σοφίαν ἀσκῶν ἐπιστήμην ἀσκεῖ τὴν περὶ θεοῦ.	P 94: σοφίαν ἀσκῶν ἐπιστήμην τὴν περὶ θεοῦ ἀσκεῖ.	Omitted
18		
<i>Marc.</i> 18, p. 24, 1–2: ὅστις δὲ τιμᾷ τὸν θεὸν ὥς προσδεόμενον, οὗτος λέληθεν ἑαυτὸν δοξάζων τοῦ θεοῦ κρείττον' εἶναι.	P 25: εἴ τις τὸν θεὸν τιμᾷ ὥς προσδεόμενον, λέληθεν ἑαυτὸν δοξάζων τοῦ θεοῦ εἶναι κρείττονα.	Omitted

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
Marc. 18, p. 24, 2–4: οὐ χολωθέντες οὖν οἱ θεοὶ βλάπτουσιν, ἀλλ' ἀγνοηθέντες· ὀργή γὰρ θεῶν ἀλλοτρία, ὅτι ἐπ' ἀβουλήτοις μὲν ἢ ὀργή, θεῶ δὲ οὐδὲν ἀβούλητον.	P 8: βλάπτει θεὸς οὐ χολωθείς, ἀλλ' ἀγνοηθείς· ὀργή γὰρ θεοῦ ἀλλότριον· ἐπ' ἀβουλήτῳ γὰρ ἢ ὀργή, θεῶ δὲ οὐδὲν ἀβούλητον.	Omitted
19		
Marc. 19, p. 24, 11–13: ^a οὐτε θυηπολῖαι θεὸν τιμῶσιν οὐτε ἀναθημάτων πληθος κοσμοῦσι θεόν, ^b ἀλλὰ τὸ ἔνθεον φρόνημα καλῶς ἡδρασμένον συνάπτει θεῶ. ^c χωρεῖν γὰρ ἀνάγκη τὸ ὅμοιον πρὸς τὸ ὅμοιον.	P 20: ^a δῶρα καὶ θυηπολῖαι θεὸν οὐ τιμῶσιν, ἀναθήματα θεὸν οὐ κοσμεῖ· ^b ἀλλὰ τὸ ἔνθεον φρόνημα διαρκῶς ἡδρασμένον συνάπτει θεῶ· ^c χωρεῖν γὰρ ἀνάγκη τὸ ὅμοιον πρὸς τὸ ὅμοιον.	Omitted
Marc. 19, p. 24, 14–15: θυηπολῖαι δὲ ἀφρόνων πυρὸς τροφή καὶ τὰ παρὰ τούτων ἀναθήματα ἱεροσύλοις χορηγία τῶν ἀκολασιῶν.	P 41: θυηπολῖαι ἀφρόνων πυρὸς τροφῇ· τὰ δὲ ἀναθήματα ἱεροσύλοις χορηγία.	Omitted
Marc. 19, p. 24, 15–19 : σοὶ δέ, ὥσπερ εἴρηται, νεῶς μὲν ἔστω τοῦ θεοῦ ὁ ἐν σοὶ νοῦς. παρασκευαστέον δὲ αὐτὸν καὶ κοσμητέον εἰς καταδοχὴν τοῦ θεοῦ ἐπιτή- δειον.	P 66: νεῶς θεοῦ σοφὸς νοῦς, ὃν οὐκ ἐφειμένως ἀλλ' ἀεὶ χρὴ παρασκευάζειν καὶ κατακοσμεῖν εἰς παραδοχὴν θεοῦ.	S 46a: ἱερὸν ἄγιον θεοῦ διάνοια εὐσεβοῦς.
Cf. <i>ibid.</i> 11, p. 16, 26–28: λέγει δὲ ὁ λόγος πάντῃ μὲν καὶ πάντως παρεῖναι τὸ θεῖον, νεῶν δὲ τούτῳ παρ' ἀνθρώποις καθιερωσθαι τὴν διάνοιαν μάλιστα τοῦ σοφοῦ μόνην.		

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
20		
<i>Marc.</i> 20, p. 24, 20–23: Ἐὰν οὖν ἀεὶ μνημονεύης, ὅτι ὅπου ἂν ἡ ψυχὴ σου περιπατῇ καὶ τὸ σῶμα ἐνεργὸν ἀποτελῇ, θεὸς παρέστηκεν ἔφορος ἐν πάσαις σου ταῖς βουλαῖς καὶ ταῖς πράξεσιν, αἰδεσθήσῃ μὲν τοῦ θεωροῦ τὸ ἄλεστον, ἕξεις δὲ τὸν θεὸν σύννοικον.	P 26: ἐὰν ἀεὶ μνημονεύης ὅτι, ὅπου δ' ἂν ἡ ψυχὴ σου καὶ τὸ σῶμά σου ἔργον ἐπιτελῇ, θεὸς παρέστηκεν ἔφορος, ἐν πάσαις σου ταῖς βουλαῖς καὶ ταῖς πράξεσιν αἰδεσθήσῃ μὲν τοῦ θεωροῦ τὸ ἀδιάληστον, ἕξεις τὸν θεὸν σύννοικον.	Omitted
21		
<i>Marc.</i> 21, p. 24, 26–27: θεοῦ γὰρ γνώσις ποιεῖ βραχὺν λόγον.	P 10: ^a βραχύλογον μάλιστα ἢ θεοῦ γνώσις ποιεῖ. Cf. P 16: γνώσις θεοῦ ποιεῖ βραχύ- λογον. ^b πολλῶν δὲ λόγων περὶ θεοῦ ἢ πρὸς θεὸν ἀμαθία αἰτία.	S 430: ἄνθρωπον θεοῦ γνώσις βραχύλογον ποιεῖ. S 431: πολλοὺς λόγους περὶ θεοῦ ἀπειρία ποιεῖ.
26		
<i>Marc.</i> 26, p. 30, 10–17: νοῦ γὰρ σῶμα ψυχὴν λογικὴν θετέον, ἣν τρέφει ὁ νοῦς τὰς ἐν αὐτῇ ἐννοίας, ἃς ἐνετύπωσε καὶ ἐνεχάραξεν ἐκ τῆς τοῦ θείου νόμου ἀληθείας, εἰς ἀναγνώρισιν ἁγῶν διὰ τοῦ παρ' αὐτῷ φωτός· καὶ διδάσκαλος αὐτὸς γινόμενος καὶ σωτὴρ καὶ τροφεὺς καὶ φύλαξ καὶ ἀναγωγός, μετὰ σιγῆς μὲν φθεγγόμενος τὴν ἀλήθειαν.	P 67: νοῦ σῶμα ψυχὴν λογικὴν θετέον ἣν τρέφει ὁ νοῦς τῇ ἀρετῇ, διδάσκαλος αὐτὸς καὶ τροφεὺς καὶ σωτὴρ καὶ φύλαξ γινόμενος, μετὰ σιγῆς φθεγγόμενος καὶ τὴν ἀλήθειαν ἐμφανίζων αὐτῇ.	Omitted

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
29		
Marc. 31, p. 32, 21–22: κρεῖσσον δέ σοι θαρρεῖν ἐπὶ στιβάδος κατακειμένη ἢ ταράττεσθαι χρυσῇν ἐχούση κλίνην καὶ πολυτελῇ τράπεζαν.	P 29: ζῆν κρεῖττον ἐπὶ στιβάδος κατακείμενον καὶ θαρρεῖν ἢ ταράττεσθαι χρυσῇν ἔχοντα λίμνην [κλίνην] ⁵⁵ .	Omitted
30		
Marc. 30, p. 32, 25: σαρκὸς δὲ φωνὴ μὴ πεινῆν, μὴ διψῆν, μὴ ῥιγοῦν.	P 98: σαρκὸς φωνὴ μὴ πεινῆν, μὴ διψῆν, μὴ ῥιγοῦν ⁵⁶ .	Omitted
Marc. 30, p. 34, 5–8: καὶ δέχεσθαι μὲν ἀθορύβως τὰ παρὰ τῆς τύχης ἀγαθὰ, παρατετάχθαι δὲ πρὸς τὰ παρ’ αὐτῆς δοκοῦντα εἶναι κακά· ὥς ἐφήμερον μὲν πᾶν τὸ τῶν πολλῶν ἀγαθόν ἐστι, σοφία δὲ καὶ ἐπιστήμη οὐδαμῶς τύχης κοινωνεῖ.	P 60: μάθε δέχεσθαι τὰ παρὰ τῆς τύχης ἀγαθὰ ἀθορύβως, καὶ πεφράχθαι πρὸς τὰ παρ’ αὐτῆς κακά· ἐφήμερον γὰρ πᾶν τὸ τοιούτον, ἀγαθόν τε καὶ κακόν, σοφία δὲ οὐδαμῶς κοινωνεῖ ⁵⁷ .	Omitted
31		
Marc. 31, p. 34, 10–13: κενὸς ἐκείνου φιλοσόφου λόγος, ὅφ’ οὐ μὴδὲν πάθος ἀνθρώπου θεραπεύεται· ὥσπερ γὰρ ἰατρικῆς οὐδὲν ὄφελος, εἰ μὴ τὰς νόσους τῶν σωμάτων θεραπεύει, οὕτως οὐδὲ φιλοσοφίας, εἰ μὴ τὸ τῆς ψυχῆς ἐκβάλλει πάθος.	P 50: κενὸς ἐκείνου φιλοσόφου λόγος, ὅφ’ οὐ μὴδὲν ἀνθρώπου πάθος θεραπεύεται· ὥσπερ γὰρ ἰατρικῆς μὴδὲν ὄφελος μὴ τὰς νόσους ἐκβαλλούσης ἀπὸ τῶν σωμάτων, οὕτως οὐδὲ φιλοσοφίας, εἰ μὴ τὸ τῆς ψυχῆς κακὸν ἐκβάλῃ.	Omitted

55 Cf. *Epicur. Fr.* 207, p. 163, 4–5 Usen. According to Chadwick 1959, 149, it is possible that the Epicurean collection used by Porphyry (*Marc.* 27–31) derives from Neopythagorean circles.

56 Cf. *Gnom. Vat. Epicur.* 33, p. 63, 13 Mühlh.

57 Cf. *Epicur. Fr.* 221, p. 169, 14–17 Usen.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
32		
<i>Marc.</i> 32, pp. 35, 15–36, 5: εἰ μὴ τὸ σῶμα οὕτω σοι συνηρητῆσθαι φυλάξεις ὥς τοῖς ἐμβρύοις κυοφορουμένοις τὸ χόριον καὶ τῷ σίτῳ βλαστάνοντι τὴν καλάμην, οὐ γνώση σεαυτήν· οὐδὲ γὰρ ἄλλος ὅστις μὴ οὕτω δοξάζει ἔγνω ἑαυτόν. ὥσπερ οὖν τὸ χόριον συγγενόμενον καὶ ἡ καλάμη τοῦ σίτου, τελεωθέντα δὲ ῥίπτεται ἐκάτερα, οὕτω καὶ τὸ συναρτώμενον τῇ ψυχῇ σπαρείσῃ σῶμα οὐ μέρος ἀνθρώπου. ἀλλ' ἵνα μὲν ἐν γαστρὶ γένηται, προσυφάνθῃ τὸ χόριον, ἵνα δὲ ἐπὶ γῆς γένηται, συνεζύγῃ τὸ σῶμα. ὅσω τις τέτραπται πρὸς τὸ θνητόν, τοσοῦτω τὴν ἑαυτοῦ γνώμην ἀσύμμετρον παρασκευάζει πρὸς τὸ τῆς ἀφθαρσίας μέγεθος· καὶ ὅσω τῆς τοῦ σώματος προσπαθείας ἀφίσταται, τοσοῦτω μέτρῳ τῷ θείῳ πελάζει.	P 106: ὑπολάμβανε τὸ σῶμα οὕτως σοι συνηρητῆσθαι, ὥς τοῖς ἐμβρύοις κυοφορουμένοις τὸ χόριον καὶ τῷ σίτῳ βλαστάνοντι τὴν καλάμην. ὥσπερ οὖν τὸ χόριον συγγινόμενον οὐκέτι ζῶου μέρος οὐδὲ τὸ ἄχυρον καὶ ἡ καλάμη τοῦ σίτου (τελειωθέντων γὰρ ρίπτεται ἐκάτερον), οὕτω καὶ τὸ συναρτώμενον ψυχῇ σπαρείσῃ σῶμα οὐ μέρος ἀνθρώπου· ἀλλ' ἵνα μὲν ἐν γαστρὶ ὑπομένη τὸ βρέφος, προσυφάνθῃ τὸ χόριον καὶ τὸ αἷμα καὶ τὰ λοιπὰ τῆς ἐν τῷ χορίῳ σηπεδόνας, τὸ δὲ ἐκ τούτων ἐξιὼν κεκα- θαρμένον· οὐδ' αὐτὸς οὖν ἕκαστος τὸ μετὰ σώματος ἐν κόσμῳ καὶ ἐπὶ γῆς κυ- οφορούμενον, τὸ δὲ ἐξιὼν καὶ ἀναχωροῦν ἀπ' αὐτοῦ πρὸς τὸν σπεῖραντα καὶ καταπέμψαντα πατέρα.	Omitted
<i>Marc.</i> 32, p. 36, 5–7: ὁ συνετὸς ἀνὴρ καὶ θεοφιλὴς ὅσα οἱ ἄλλοι μοχθοῦσι τοῦ σώματος ἔνεκα, τοσαῦτα ὑπὲρ τῆς ψυχῆς σπουδάζεται πονήσαι.	P 95: συνετὸς ἄνθρωπος καὶ θεοφιλὴς, ὅσα οἱ ἄλλοι μοχθοῦσι τοῦ σώματος ἔνεκα, τοσαῦτα σπουδάζει αὐτὸς ὑπὲρ τῆς ψυχῆς πονήσαι.	S 301: ὅσα πονεῖς διὰ τὸ σῶμα, καὶ διὰ τὴν ψυχὴν πονέσας σοφὸς ἂν εἴης.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
<i>Marc.</i> 32, p. 36, 7–8: οὐ τὸ μεμνησθαι ὧν ἤκουσεν αὐταρκες εἶναι νομίζων, τὸ δὲ ἀνατρέχειν εἰς ἃ δεῖ δι' ὧν ἤκουσεν μελετῶν.	P 75: οὐ τὸ μεμνησθαι μόνον ὧν ἤκουσας αὐταρκες εἶναι νομίζειν δεῖ πρὸς εὐδαιμονίαν, ἀλλὰ καὶ τὸ ἀνατρέχειν εἰς ἃ δεῖ δι' ὧν ἤκουσας μελετῶν.	Omitted
33		
<i>Marc.</i> 33, p. 36, 9–10: γυμνὸς δὲ ἀποσταλεῖς γυμνητεύων καλέσει τὸν πέμψαντα· μόνου γὰρ τοῦ μὴ τοῖς ἀλλοτρίοις πεφορτισμένου ἐπήκοος ὁ θεός.	P 17: γυμνὸς ἀποσταλεῖς σοφὸς γυμνητεύων καλέσει τὸν πέμψαντα ⁵⁸ · μόνου γὰρ τοῦ μὴ τοῖς ἀλλοτρίοις πεφορτισμένου ἐπήκοος ὁ θεός.	Omitted
34		
<i>Marc.</i> 34, p. 38, 2–4 : ὅτι καὶ χαλεπώτερον δουλεύειν πάθεισιν ἢ τυράννοις· ἀδύνατον δ' εἶναι ἐλεύθερον τὸν ὑπὸ παθῶν κρατούμενον.	P 21: δουλεύειν πάθεισιν χαλεπώτερον ἢ τυράννοις.	S 75a: δεινότατόν ἐστὶν πάθεισιν δουλεύειν.
<i>Marc.</i> 34, p. 38, 4: ὅσα γὰρ πάθη ψυχῆς, τοσοῦτοι καὶ ὥμοι δεσπότες.	P 71: ὅσα πάθη ψυχῆς, τοσοῦτοι καὶ ὥμοι δεσπότες.	S 75b: ὅσα πάθη ψυχῆς, τοσοῦτοι δεσπότες ⁵⁹ .
35		
<i>Marc.</i> 35, p. 38, 13–14: πολλῷ γὰρ κρεῖττον τεθνάναι ἢ δι' ἀκρασίαν τὴν ψυχὴν ἀμαυρῶσαι.	P 103: τεθνάναι πολλῷ κρεῖττον ἢ δι' ἀκρασίας τὴν ψυχὴν ἀμαυρῶσαι.	S 345: κρεῖττων ἀποθανεῖν λιμῷ ἢ διὰ γαστρὸς ἀκρασίαν ψυχὴν ἀμαυρῶσαι ⁶⁰ .

58 Cf. Plat. *Gorg.* 523c sq.

59 Cf. Clitarch. 85, p. 80 Chadwick.

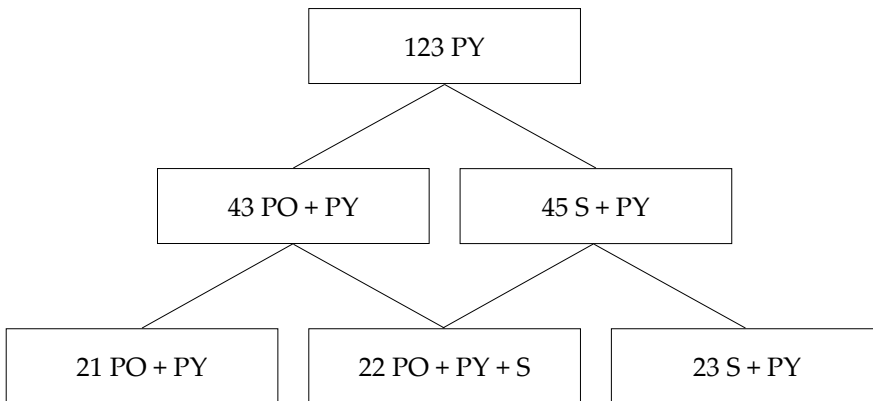
60 Cf. Clitarch. 114, p. 82 Chadwick.

Porph. Marc. ed. Pötscher	Pyth. Sent. ed. Chadwick	Sext. Sent. ed. Chadwick
<i>Marc.</i> 35, p. 38, 17: κρηπις εὐσεβείας σοι νομιζέσθω ἢ φιλανθρωπία.	P 51: κρηπις εὐσεβείας ἢ φιλανθρωπία σοι νομιζέσθω.	S 371: κρηπις θεοσεβείας ἢ φιλανθ- ρωπία.

To sum up, the alphabetical collection contains:

123 Pythagorean Sentences [PY]⁶¹ (cf. pp. 84–94 Chadwick), of which:

- 43 occur in Porphyry [PO] (cf. the above table).
- 45 occur in Sextus [S]⁶²
(cf. Chadwick 1959, 144–146).
- 22 are common to Porphyry and Sextus (cf. the above table)⁶³.
- 21 occur only in Porphyry (cf. the above table).
- 23 occur only in Sextus.



⁶¹ The Greek text is contained in three manuscripts: *Patmiensis* 263, saec. X.; Vienna Hofbibliothek, *cod. Philos. et philol.* 225, saec. XV; *Vaticanus gr.* 743, saec. XVI. A Syriac version is contained in a manuscript in Brit. Mus. Add. 14658, saec. VI–VII.

⁶² The Greek text is contained in two manuscripts: *Patmiensis* 263, saec. X, foll. 213–216 and *Vaticanus Graecus* 742, saec. XIV, foll. 2–23. Cf. Chadwick 1959, 3f.

⁶³ According to Sodano 2006, 131–132, Porphyry and Sextus share 31 maxims. According to Chadwick 1959, 144–146, they share 57 maxims.

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Reinventing the Pythagorean Tradition in Pseudo-Justin's *Cohortatio ad Graecos*

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1 Pythagoras in Pseudo-Justin's *Cohortatio ad Graecos*

In conformity with the Christian exhortatory genre, the anonymous author of the *Cohortatio ad Graecos* (henceforth *Coh. Gr.*),¹ a text later included in the corpus ascribed to Justin Martyr, presents the great Greek thinkers and poets as in conflict with each other, arguing that when they did produce true statements, as sometimes happened, they did so in dependence on Biblical texts.

The first mention of Pythagoras in *Coh. Gr.* is part of a set of references to other thinkers belonging to the Greek tradition.² In one such notice, the anonymous author maintains that Pythagoras, identified as the son of Mnesarchos, defines numbers, along with their proportions and harmonies (τὰς συμμετρίας καὶ τὰς ἐν αὐτοῖς ἁρμονίας) and the elements composed of both (τὰ τῶν ἀμφοτέρων σύνθετα στοιχεῖα), as the first principles (ἀρχάς), which also include unity and the indefinite dyad (ἔτι μέντοι μονάδα καὶ τὴν ἀόριστον δυάδα).³ The anonymous author seems to be referring to the same traditions as are transmitted by

1 In this article I follow the new critical edition of Pouderon *et al.* 2009 (henceforth SC 528).

2 Cf. *Coh. Gr.* 4.1 = SC 528, 136–139.

3 On the unity, see Eudorus of Alexandria, according to which One is the first principle and the Supreme One is the creator of matter and all things (cf. Dillon 1977, 126–127). Athenagoras quotes the Pythagorean philosopher Philolaus as saying that “everything is kept fast bound by God who is one and is above matter” (*Leg. pro Christ.* 6). Philo of Alexandria has earlier echoed this Pythagorean belief when he states that God is “one and alone” (*Legum allegoriae* 2.1). On such a question, see Bostock 2003, 468: “The Pythagorean understanding of creation as a generative process emanating from the divine ‘One’ is directly linked to their understanding of number itself in which the ‘One’ represents the numerical aspect of the godhead. The ‘One’ therefore is to be understood as far as more than a mere unit. It is the fount of reality and of number. As Philo put it, ‘the Monad is not a number, but is the source of number’ (*Quis rerum divinarum heres sit* 39). The Pythagorean principle that the one, meaning the sacred Monad, is essentially the source of number as the source of all things did not simply reflect a sophisticated theory of number, but also recognized that an understanding of unity lays beyond the concept of a mere unity. Consequently the Pythagoreans distinguished between the μονάς as the unitary source of number and the ἕν which denoted a single unit in the numerical sense.” See also Burkert 1972, 231.

Aetius,⁴ Diogenes Laertius-Alexander,⁵ Philo,⁶ and Hermias.⁷ Diogenes gives more detail, recording that, according to some Pythagorean memoirs,⁸ Alexander said that the principle of all things is the monad or unit (ἀρχὴν μὲν τῶν ἀπάντων μονάδα). In Diogenes' account, Alexander insisted also on the fact that the indefinite dyad arising from this monad serves as material substrate to the monad, which is understood as cause (ἐκ δὲ τῆς μονάδος ἀόριστον δυνάδα ὡς ἂν ὕλην τῇ μονάδι αἰτίῳ ὄντι ὑποστήναι). From the monad and the indefinite dyad spring numbers; from numbers, points; from points, lines; from lines, plane figures; from plane figures, solid figures; from solid figures, sensible bodies. The elements of the things listed above are four: fire, water, earth, and air. These elements are interchangeable and mix together in order to produce a universe which is animate, intelligent, spherical, with the earth at its centre. The earth itself is spherical and inhabited.

The second mention of Pythagoras in *Coh. Gr.* occurs in a context which gives the impression that, like other Greek authorities, Pythagoras was dependent on Hebrew wisdom because of his past presence in Egypt, the land of Moses.⁹ Having already proved the antiquity and excellence of Moses, the first prophet (*Coh. Gr.* 9–12), and presented the story of the Septuagint translation (13), Ps.-Justin makes some further remarks about the Greeks, who were by now well acquainted with the writings of Moses in Egypt and therefore expressed monotheistic views (14). The anonymous author quotes as authorities Orpheus (15), the Sibyl (16), Homer (17), Sophocles (18), Pythagoras (19), and Plato (20–27). The work then proceeds by attempting to show the dependence of Homer and Plato on the Hebrew Scriptures (28–33).¹⁰

Unlike Justin Martyr himself, in *Coh. Gr.* there is no explicit reference to the idea that philosophers were able to reach the truth through the exercise of reason and by living according to λόγος. M. Marcovich brings out the importance within *Coh. Gr.* of the concept of divine πρόνοια, which this scholar considers to be a substitute for Justin's idea of the λόγος σπερματικός.¹¹ The author of *Coh. Gr.* stresses that Pythagoras seems to have encountered ideas about the unity of God as a consequence of his sojourn in Egypt. This could explain why the philosopher

4 *Pythagoristae anonymae* B 1a DK.

5 Cf. D. L. 8.25. Diogenes quotes Alexander's *Successions of Philosophers*.

6 Cf. *De providentia* 1.22.

7 Cf. *Irrisio gentilium philosophorum* 16.

8 According to Wellmann 1919, Diogenes'-Alexander's extract preserves in the main a source contemporary with Plato. On the contrary, according to Festugière 1945, this source is definitely post-platonic.

9 Cf. *Coh. Gr.* 19.1–2 = SC 528, 190–193. On this issue see also Arcari 2011. There is a very similar tradition concerning Pythagoras' journey to Egypt in Isoc., *Bus.* 29 and Porph., *Plot.* 6. In doctrinal developments of such a reference, there are echoes of Alexandrian fluxes of transmission: see Bostock 2003, 467.

10 The sequence appears to be taken from Diod. Sic. 1.96.2, who also lists Greek personalities who visited Egypt. On Diodorus in Christian apologetic literature, cf. Beatrice 1998.

11 Cf. Marcovich 1990, 10.

said that unity is the first principle of all things, the cause of all good, and why he taught by means of allegory, or mystically and symbolically, that God is one.

Ὁ δὲ τοῦ Μνησάρχου Πυθαγόρας, ὁ τὰ δόγματα τῆς ἑαυτοῦ φιλοσοφίας διὰ συμβόλων μυστικῶς ἐκθέμενος, ὡς δηλοῦσιν οἱ τὸν βίον αὐτοῦ γεγραφότες, ἄξια καὶ αὐτὸς τῆς εἰς Αἴγυπτον ἀποδημίας περὶ ἑνὸς θεοῦ φρονῶν φαίνεται.¹²

And Pythagoras, son of Mnesarchus, who expounded the doctrines of his own philosophy, mystically by means of symbols, as those who have written his life show, himself seems to have entertained thoughts about the unity of God not unworthy of his foreign residence in Egypt.¹³

This assessment is made more clearly in the Pythagorean saying paraphrased in *Coh. Gr.*, according to which unity and one differ widely from one another.

Τὴν γὰρ μονάδα ἀρχὴν ἀπάντων λέγων καὶ ταύτην τῶν ἀγαθῶν ἀπάντων αἰτίαν εἶναι, δι' ἀλληγορίας ἕνα τε καὶ μόνον διδάσκει θεὸν εἶναι. Ὅτι δὲ τοῦθ' οὕτως ἔχει, δηλὸν ἀφ' ὧν μονάδα καὶ ἓν πολλῶ διαφέρειν ἀλλήλων ἔφη τὴν μὲν γὰρ μονάδα ἐν τοῖς νοητοῖς εἶναι λέγει, τὸ δὲ ἓν ἐν τοῖς ἀριθμοῖς.¹⁴

For when he says that unity is the first principle of all things, and that it is the cause of all good, he teaches by an allegory that God is one, and alone. And that this is so is evident from his saying that unity and one differ widely from one another. For he says that unity belongs to the class of things perceived by the mind, but that one belongs to numbers.¹⁵

The anonymous author thus maintains that for Pythagoras unity belongs to the class of things perceived by the mind, while one belongs to category of numbers. A real quotation, traditionally ascribed to the authority of Pythagoras, further confirms Ps.-Justin's re-invention of the Pythagorean conceptions:

Εἰ δὲ καὶ σαφεστέραν ἀπόδειξιν περὶ ἑνὸς θεοῦ τῆς Πυθαγόρου δόξης ποθεῖτε γινῶναι, ἀκούσατε καὶ τῆς αὐτοῦ δόξης. Οὕτω γὰρ ἔφη. “Ὁ μὲν θεὸς εἷς, αὐτὸς δὲ οὐχ, ὡς τινες ὑπονοοῦσιν, ἐκτὸς τᾶς διακοσμῆσις, ἀλλ' ἐν ἑαυτῷ ὅλος ἐν ὅλῳ τῷ κύκλῳ ἐπισκοπῶν πάσας γενέσιός ἐστιν, κρᾶσις ἐὼν τῶν ὅλων αἰώνων καὶ ἐργάτας τῶν αὐτοῦ δυνάμιων καὶ ἔργων, ἀρχὰ πάντων, εἷς ἐν οὐρανῷ φωστὴρ καὶ πάντων πατὴρ, νοῦς

12 *Coh. Gr.* 19.1 = SC 528, 190.

13 Trans. from Robertson / Donaldson / Cleveland Cox 2007a, 280.

14 Cf. *Coh. Gr.* 19.1 = SC 528, 190.

15 Trans. from Robertson / Donaldson / Cleveland Cox 2007a, 280–281.

καὶ ψύχωσις τῶν ὅλων, κύκλων ἀπάντων κίνασις.” Οὕτω μὲν οὖν ὁ Πυθαγόρας.¹⁶

If you desire to see a clearer proof of the opinion of Pythagoras concerning one God, hear his own opinion, for he spoke as follows: “God is one; and He Himself does not, as some suppose, exist outside the world, but in it, He being wholly present in the whole circle, and beholding all generations; being the regulating ingredient of all the ages, and the administrator of His own powers and works, the first principle of all things, the one luminary in heaven, and Father of all, the intelligence and animating soul of the universe, the movement of all orbits.” Thus, then, Pythagoras.¹⁷

2 Pseudo-Pythagorean Fragments and self-defining re-readings: a comparison with Clement of Alexandria (*Protr.* 6.72.4)

A more or less similar fragment directly ascribed to Pythagorean authority can be found also in the Pythagorean texts from the Hellenistic period,¹⁸ as well as in other Christian texts.¹⁹ In Clement of Alexandria’s *Protrepticus* the same Pythagorean passage quoted by Ps.-Justin is attested. There the Alexandrian teacher proclaims the existence of an immanent divinity which sustains the whole cosmos.

Οὐκ ἀποκρυπτεόν οὐδὲ τοὺς ἀμφὶ τὸν Πυθαγόραν, οἳ φασιν “ὁ μὲν θεὸς εἷς, οὗτος δὲ οὐχ, ὥς τινες ὑπονοοῦσιν, ἐκτὸς τὰς διακοσμήσιος, ἀλλ’ ἐν αὐτῷ, ὅλος ἐν ὅλῳ τῷ κύκλῳ ἐπίσκοπος πάσας γενέσιος, κρᾶσις τῶν ὅλων αἰώνων καὶ ἐργάτας τῶν αὐτοῦ δυνάμειων καὶ ἔργων, ἀπάντων ἐν οὐρανῷ φωστήρ καὶ πάντων πατήρ, νοὺς καὶ ψύχωσις τῷ ὅλῳ κύκλῳ, πάντων κίνασις.” Απόχρη καὶ τάδε εἰς ἐπίγνωσιν θεοῦ ἐπιπνοία θεοῦ πρὸς αὐτῶν μὲν ἀναγεγραμμένα, πρὸς δὲ ἡμῶν ἐξειλεγμένα τῷ γε καὶ σμικρὸν διαθρεῖν ἀλήθειαν δυναμένῳ.²⁰

We must not either keep the Pythagoreans in the back-ground, who say: “God is one; and He is not, as some suppose, outside of this frame of things, but within it; but, in all the entirety of His being, is in the whole circle of existence, surveying all nature, and blending in harmonious union the whole – the author of all His own forces and works, the giver of light in heaven, and Father of all – the mind and vital power of the whole world – the mover of all things.” For the knowledge of God, these utterances, written by those we have mentioned through the inspiration of God, and selected by us, may suffice even for the man that has but small power to examine truth.²¹

16 *Coh. Gr.* 19.2 = SC 528, 192.

17 Trans. from Robertson / Donaldson / Cleveland Cox 2007a, 281, slightly modified.

18 Cf. Thesleff 1965, 186.

19 See Cyril., *Adv. Iul.* 1.42 and Clem. Al., *Protr.* 6.72.4.

20 Cf. *Protr.* 6.72.4 = Stählin 1905, 55.

21 Trans. from Robertson / Donaldson / Cleveland Cox 2007b, 192.

The bibliography on such pseudo-Pythagorean literature is rich, and the debate on whether it is of Jewish origin or otherwise is ongoing.²² C. Riedweg, for example, thinks that the excerpt quoted by both Clement and Ps.-Justin is not a Jewish composition,²³ *pace* N. Walter.²⁴ Whatever the case, the Alexandrian provenance of the Pythagorean excerpt is clear, as its transmission by Clement well shows. Of particular interest is the expression within our fragment, ὅλος ἐν ὅλῳ τῷ κύκλῳ ἐπίσκοπος πάσας γενέσιος.²⁵ R. E. Witt compares it with Cic., *Nat. D.* 1.27 and Ammonius Saccas *apud* Nemesius, *Nat. H.* 58, Plotinus, *Enn.* 5.1.2 and 6.4.5 in order to show Clement's proximity to Neo-Platonism, and points out that the sentence κρᾶσις τῶν ὅλων αἰώνων, in spite of its Stoic ring, is not to be understood as hylotheism.²⁶ Another parallelism seems to be apparent in Clement's explanation concerning Pythagoreans' ἐπίπνοια θεοῦ.²⁷ Clement takes his material from a source specifically dedicated to demonstrating the plagiarism of the Greeks, a source that we find also in *Strom.* 5.²⁸ However, Clement does not seem willing to stress that point in the *Protrepticus*, perhaps because he was aware that it would not work as an argument for the "Greeks" to whom the text is addressed. This is why in this case, in spite of his adherence to the theory of dependence of the Greeks on Hebrew Scriptures,²⁹ Clement prefers to emphasize (or to force) the parallels without offering a consistent explanation.³⁰

Ps.-Justin's rereading of the Pythagorean fragment is quite different. The author underlines the fact that the Greek "inspired" thinkers were forced to say

22 Further details in Burkert 1961 and 1972, 109–121; Macris 2002. More generally on ancient pseudepigraphy, see von Fritz 1972, Cerri 2000 and Dobroruka 2014.

23 Cf. Riedweg 1994, 365.

24 Cf. Walter 1983, 257.

25 According to *Protr.* 6.72.4. In *Coh. Gr.* 19.1 we find ὅλος ἐν ὅλῳ τῷ κύκλῳ ἐπισκοπῶν πάσας γενέσιός ἐστιν.

26 Cf. Witt 1931.

27 In the quoted passage Clement repeats some words used earlier in *Protr.* 6.71.1 (Stählin 1905, 53): Καί μοι μὴ μόνον, ὦ φιλοσοφία, ἓνα τοῦτον Πλάτωνα, πολλοὺς δὲ καὶ ἄλλους παραστήσαι σπούδασον, τὸν ἓνα ὄντως μόνον θεὸν ἀναφθεγγόμενους θεὸν κατ' ἐπίπνοϊαν αὐτοῦ, εἴ που τῆς ἀληθείας ἐπιδράξαιντο // "And let it not be this one man alone – Plato; but, O philosophy, hasten to produce many others also, who declare the only true God to be God, through His inspiration, if in any measure they have grasped the truth" (trans. from Roberts / Donaldson / Cleveland Coxe 2007b, 192).

28 Stempler 1912, 57–80 examines this text by Clement. On how plagiarism is understood in Christian literature, see Aragione 2007.

29 For example, see *Protr.* 6.70.1. On such a question, see Dawson 1992, 204: "Following Philo and his Hellenistic Jewish predecessors, as well as the chronological calculations of Justin's pupil Tatian (in his *Address to the Greeks*), Clement asserts the absolute priority of Hebrew scripture to classical literature, of Moses to Homer and Plato. Moses turns out to be not only older than Greek poets and wise men, but even older than the Greek deities (*Strom.* 1.21.107,6). Having established the priority of Hebraic wisdom, Clement next shows that Greek wisdom is derived from it. The Greeks copied the miracles recorded in Hebrew scripture, and all their chief philosophical ideas are plagiarized from the same source (*Strom.* 2.1.1,1–2)." For a new approach to this problem, see Itter 2009, 79–112.

30 For this argument, see also Herrero de Jáuregui 2008, 207–208.

many things by the divine regard (ὑπὸ τῆς θείας προνοίας) for mankind, especially those among them who were in Egypt. Ps.-Justin is probably combining two disparate explanations of the origins of truth in the Greek world: πρόνοια and literary dependency on Hebrew Scriptures. Nevertheless, those who discerned some truth through the exercise of reason (perhaps Sophocles)³¹ and those who experienced a more direct form of inspiration (like the Sibyl, as Ps.-Justin later explains)³² can be distinguished from those who owed their knowledge of the truth to their acquaintance with Hebrew sources (the case of Pythagoras).

In keeping with his general intention of promoting Greek expressions of monotheism, the introductory formula to the Pythagorean excerpt in *Coh. Gr.* 19.2, Εἰ δὲ καὶ σαφεστέραν ἀπόδειξιν περὶ ἑνὸς θεοῦ τῆς Πυθαγόρου δόξης ποθεῖτε γινῶναι – the focus of the phrase is clearly on περὶ ἑνὸς θεοῦ – is well suited to the content of the Christian re-reading of the quotation that is presented in the text, in which an assumption of monotheism is implied (in the words of the excerpt, Ὁ μὲν θεὸς εἷς, αὐτὸς δὲ οὐχ). In *Coh. Gr.* 16.1, we find a similar pronouncement introducing the Sibylline quotations.³³ But in this case the anonymous author clearly frames the Sibyl herself firmly within the pagan religious context, since she supposedly confesses that “we” have strayed from the proper path.³⁴ Such an identification of the Sibyl with her fellow pagans gives the impression of a confession after con-

31 Cf. *Coh. Gr.* 18 = SC 528, 188–190: Εἰ δὲ καὶ τῶν ἀπὸ τῆς σκηνῆς περὶ ἑνὸς θεοῦ μαρτυρίας ἡμᾶς προσθεῖναι δέοι, ἀκούσατε καὶ Σοφοκλέους οὕτω λέγοντος: “Εἰς ταῖς ἀληθείαισιν, εἰς ἔστιν θεός, / Ὅς οὐρανὸν τέτευχε καὶ γαίαν μακρὰν, / Πόντου τε χαροπὸν οἶμα κἀνέμων βίας. / Ὦνητοὶ δὲ πολλοὶ καρδία πλανώμενοι / Ἰδρυσάμεσθα πημάτων παραψυχὴν, / Θεῶν ἀγάλματ’ ἐκ λίθων τε καὶ ξύλων, / Ἥ χρυστεύκτων ἢ ἐλεφαντίνων τύπους / Θυσίας τε τούτοις καὶ καλὰς πανηγύρεις / Τεύχοντες, οὕτως εὐσεβεῖν νομίζομεν.” Ταῦτα μὲν οὖν ὁ Σοφοκλῆς. // “And if it is needful that we add testimonies concerning one God, even from the dramatists, hear even Sophocles speaking thus: ‘There is one God, in truth there is but one, / Who made the heavens and the broad earth beneath, / The glancing waves of ocean and the winds / But many of us mortals err in heart, / And set up for a solace in our woes / Images of the gods in stone and wood, / Or figures carved in brass or ivory, / And, furnishing for these our handiworks, / Both sacrifice and rite magnificent, / We think that thus we do a pious work’. Thus, then, Sophocles” (trans. from Robertson / Donaldson / Cleveland Coxe 2007a, 280).

32 Cf. *Coh. Gr.* 36.4–37.3. In particular, cf. 37.1 = SC 528, 262: Ἔσται δὲ ὑμῖν ῥαδίως τὴν ὀρθὴν θεοσέβειαν ἐκ μέρους παρὰ τῆς παλαιᾶς Σιβύλλης, ἐκ τινος δυνατῆς ἐπιπνοίας διὰ χρησμῶν ὑμᾶς διδασκούσης, μανθάνειν ταῦθ’ ἅπερ ἐγγύς εἶναι δοκεῖ τῆς τῶν προφητῶν διδασκαλίας. // “And you may in part easily learn the right religion from the ancient Sibyl, who by some kind of potent inspiration teaches you, through her oracular predictions, truths which seem to be much akin to the teaching of the prophets” (trans. from Robertson / Donaldson / Cleveland Coxe 2007a, 288).

33 See the introductory phrase to the excerpt from *Oracula Sibyllina*, frag. 1.7–9 Geffcken: διὰ χρησμῶν ὑμᾶς διδάσκειν περὶ ἑνὸς καὶ μόνου θεοῦ συμβαίνει. The Sibylline oracle quoted in *Coh. Gr.* starts with Εἷς θεὸς <ὁς> μόνος ἔστιν (SC 528, 184). On both Sibyls and Sibylline Oracles in early Christian literature, see Hooker 2007.

34 See the second Sibylline oracle quoted by Ps.-Justin (SC 528, 184): Ἡμεῖς δ’ ἀθανάτοιο τρίβου πεπλανημένοι ἡμέιν, / Ἔργα δὲ χειροποίητα γεραίρομεν ἄφρονι μύθῳ, / Εἰδῶλα ξοάνά <τε> καταφθιμένων ἀνθρώπων // “But we have strayed from the Immortals ways, And worship with a dull and senseless mind Idols, the workmanship of our own hands,

version, a sort of palinode parallel to that of Orpheus recalled in *Coh. Gr.* 36.4.³⁵ It is not by chance that Orpheus, like the others, is explicitly said to have visited Egypt in *Coh. Gr.* 14.2.³⁶

3 Competitive (and / or apologetic) views of Pythagoras in Late Antiquity

A preliminary conclusion that can be drawn, concerning the ideological structure of *Coh. Gr.* is that some Greek thinkers did not always espouse monotheism, and that therefore their access to the truth was not constant throughout their lives. Their confessions show that monotheistic declarations were a departure from what they had observed and proclaimed in different ways. Concerning Pythagoras, Ps.-Justin's text coincides with other Jewish and / or Alexandrian traditions.³⁷ The anonymous author of *Coh. Gr.* stresses that Pythagoras, like Orpheus, Homer, Solon, Plato, and some others, had been to Egypt and taken advantage of Moses' enquiry, and they then divulged doctrines concerning the gods which were the opposite to those promulgated before. More specifically, the anonymous author stresses that Pythagoras expounded the doctrines of his own philosophy mystically, by means of symbols, entertaining thoughts about the unity of God.

The expression used in *Coh. Gr.* 19.1, διὰ συμβόλων μυστικῶς, is relevant because it recalls the exegetical method of inquiry in which instruction is given to the interpreters of the sacred texts by means of symbols, i. e. allegorically.³⁸ Philo informs us that the Egyptian Therapeutae prayed for keenness of spiritual vision.³⁹ The study of the Law and the Prophets was carried out both privately

And images and figures of dead men" (trans. from Robertson / Donaldson / Cleveland Cox 2007a, 280). This quotation coincides with *Orac. Sib.* 3.721–723, Geffcken.

35 SC 528, 260: τῷ γοῦν πρότερον ὑμᾶς τὴν πολυθεότητα διδάξαντι, ὕστερον δὲ λυσιτελεῖ καὶ ἀναγκαίαν παλινῳδιαν ἄσαι προελομένῳ πείσθητε, Ὀρφεῖ... // "yet believe him who, though at first he taught you polytheism, yet afterwards preferred to sing a useful and necessary recantation – I mean Orpheus..." (trans. from Robertson / Donaldson / Cleveland Cox 2007a, 280). On this issue see also Hooker 2007, 228–229.

36 SC 528, 178: Οὐ γὰρ λανθάνειν ἐνίους ὑμῶν οἶμαι ἐντυχόντας πάντως πού τῃ τε Διοδώρου ἱστορίᾳ καὶ ταῖς τῶν λοιπῶν τῶν περὶ τούτων ἱστορησάντων ὅτι καὶ Ὀρφεὺς καὶ Ὅμηρος καὶ Σόλων, ὁ τοὺς νόμους Ἀθηναίοις γεγραφώς, καὶ Πυθαγόρας καὶ Πλάτων καὶ ἄλλοι τινές, ἐν τῇ Αἰγύπτῳ γενόμενοι καὶ ἐκ τῆς Μωϋσέως ἱστορίας ὠφεληθέντες, ὕστερον ἐναντία τῶν πρότερον μὴ καλῶς περὶ θεῶν δοξάντων αὐτοῖς ἀπεφάνησαντο // "For I think that some of you, when you read even carelessly the history of Diodorus, and of those others who wrote of these things, cannot fail to see that both Orpheus, and Homer, and Solon, who wrote the laws of the Athenians, and Pythagoras, and Plato, and some others, when they had been in Egypt, and had taken advantage of the history of Moses, afterwards published doctrines concerning the gods quite contrary to those which formerly they had erroneously promulgated" (trans. from Robertson / Donaldson / Cleveland Cox 2007a, 279).

37 For example, see the fragment attributed to Aristobulus by Euseb., *Praep. evang.* 13.12.1, where Plato, Pythagoras, and Socrates are mentioned as Moses' pupils. There is also a notice quoted by Clement of Alexandria concerning the Phoenician origin of Pythagoras: cf. Clem. Al., *Strom.* 1.62.2–4.

38 Cf. Philo, *Quod omnis probus liber sit* 82.

39 See *De vita contemplativa* 89. On the Philonian description of the Therapeutic exegetical method, see Leonhardt 2001, 91–94.

and publicly, and the Therapeutic interpretation was substantially an allegorical one. Laws of fasting were part of the knowledge derived from this, and those who followed them were performing the mysteries of the holy life. In a similar cultural milieu, Clement of Alexandria maintained that the knowledge of the real or mystic name of the deities was the typical knowledge of their initiates in the mysteries.⁴⁰ As M. Herrero emphasizes, this represents a new image of the mysteries that has been adapted to Christianity, in which the believer gets to know the name of his father, God-Christ.⁴¹ The same epistemological process seems to be attributed to Pythagoras by the anonymous author of *Coh. Gr.*

Concerning the figure of Pythagoras in *Coh. Gr.* a further conclusion needs to be drawn. According to the recent edition of the work, published in 2009 by B. Pouderon and others, the text should be ascribed to the Monarchian bishop Marcellus of Ancyra.⁴² This attribution was first defended by C. Riedweg in his edition with commentary published in 1994.⁴³ Obviously, many issues remain unsolved by this thesis, as Simonetti has recently stressed.⁴⁴ However, I am persuaded by one aspect of this new approach, which is that it positively stresses the cultural operation carried out by Ps.-Justin in a specific phase of the history of ancient Christianity, i. e. the third–fourth century CE.⁴⁵ In keeping with his general intention of adducing Greek expressions of monotheism, the element Ps.-Justin applies to Pythagoras is *μονάς*.⁴⁶ By doing so, Ps.-Justin seems to be drawing a parallel with the *theosebeia* of Orpheus and the Sibyl.⁴⁷

One can deduce that the monotheism attributed to Pythagoras is a cultural construct, closely connected with other Greek authorities, among whom Orpheus is the first from a chronological point of view.⁴⁸ The anonymous author of *Coh. Gr.* aims to defend, perhaps in the period of the Arian crisis, the so-called Monar-

40 See *Protr.* 115.4. See also Athenagoras, *Leg. pro Christ.* 20.

41 Cf. Herrero de Jáuregui 2008, 257.

42 Cf. SC 528, 42–46.

43 Cf. Riedweg 1994, 167–182.

44 Cf. Simonetti 2011. Following the edition of the works of Ps.-Justin by B. Pouderon and others, in this article Simonetti presents some critical notes concerning both the anonymous works that were later included in Pseudo-Justin's corpus, namely *De monarchia* and *Coh. Gr.* Notwithstanding its significant relationship with Clement of Alexandria, *De monarchia* seems to derive from the Judaeo-Hellenistic context of Alexandria. Concerning *Coh. Gr.*, Simonetti suggests that due to its linguistic characteristics the probable author of the work is Marcellus of Ancyra, but neither the doctrine nor the exegesis really support this assumption.

45 Further details in Arcari 2011, 308–313.

46 Cf. *Coh. Gr.* 19.1 = SC 528, 190.

47 Cf. *Coh. Gr.* 16.1–2.

48 Cf. *Coh. Gr.* 15.1 = SC 528, 178: Ὁρφεὺς γοῦν, ὁ τῆς πολυθεότητος ὑμῶν, ὡς ἂν εἴποι τις, πῶτος διδάσκαλος γεγονώς, οἷα πρὸς τὸν υἱὸν αὐτοῦ Μουσαῖον καὶ τοὺς λοιποὺς γνησίους ἀκροατὰς ὕστερον περὶ ἑνὸς καὶ μόνου θεοῦ κηρύττει λέγων, ἀναγκαῖον ὑπομνήσαι ὑμᾶς // “At all events, we must remind you what Orpheus, who was, as one might say, your first teacher of polytheism, latterly addressed to his son Musaeus, and to the other legitimate auditors, concerning the one and only God” (trans. from Robertson / Donaldson / Cleveland Coxe 2007a, 279). See also the succession in *Coh. Gr.* 14.2 (cf. supra, n. 36).

chianic variant of Christian Monotheism. My idea is that the (re-) invention of a Pythagorean monotheism and / or religion represents a Christian apologetic discourse that is closely connected with the invention of both Sibylline and Orphic monotheisms, all of them being cultural constructs re-proposed in the period of the Council of Nicaea (325 CE), a seminal phase for the formation of Christian monotheism, and at which a type of opposition between “Monarchianic” (Christ is not God) and “anti-Arian” (Jesus is God) views of monotheism is well-attested.⁴⁹ There is no real evidence of the divinity of Jesus in the *Coh. Gr.*, but we do find some of the same authorities quoted in the text that are also quoted in Eusebius’ works, which are an important support for the Nicene position on the divinity of Jesus.⁵⁰

This leads to yet another consideration. Ps.-Justin uses a known apologetic argumentative technique, as well as a broad range of materials that can be functionalized in such a discourse. We find a similar case in Lactantius, *Div. inst.*⁵¹ In the first book of this work, entitled *De falsa religione*, Lactantius unfolds his arguments against the traditional polytheism of Greco-Roman paganism. Lactantius begins with rational arguments about the existence of *divina providentia* and the appropriateness of connecting it with a single deity rather than many, then continues with *testimonia*,⁵² especially the biblical prophets.⁵³ He defines such *testimonia* as unanimous, sane, and credible, but he does admit that they are not believed by everyone.⁵⁴ He then mentions the *auctores*,⁵⁵ that is the authors of texts recognized as authorities by the so-called pagan audience. In this category, he first enlists poets (Orpheus, Homer, Hesiod, Virgil, Ovid), then philosophers, beginning with the Greeks – the last of them being Plato, *qui omnium sapientissimus iudicatur*⁵⁶ – followed by the Romans with Cicero and Seneca. Lactantius’ general comment on the philosophers is that they came close to the truth, but were hindered by the tradition of paganism. Lactantius’ appeal to authority is very similar to the one employed in *Coh. Gr.*, where a distinction seems to be made between rational and divine inquiries concerning the authentic θεοσέβεια. The employment of a well-known apologetic and / or argumentative technique on the part of the anonymous author of *Coh. Gr.* can be considered a sign that the work belongs to this historical and cultural milieu.

The likelihood that Ps.-Justin drew many of his authorities from an extant anthology could explain the function of his apologetic discourse. N. Zeegers-Vander

49 On this issue, see Edwards 2009, 106–107. On so-called Monarchianism, see Simonetti 1993, espec. 217–238. On the “Arian crisis,” see Simonetti 1975.

50 On this topic, see the recent study by Inowlocki 2011.

51 Further details in Hooker 2007, 287–291.

52 Cf. 1.3.

53 Cf. 1.4.

54 Cf. 1.4 and 1.5.

55 Cf. 1.5.2.

56 Cf. 1.5.23.

Vorst considered the source of such quotations an *anthologie du plagiat*.⁵⁷ J. Daniélou saw this collection of quotations as a catena of Jewish origin, which *Coh. Gr.* had supposedly reproduced *in toto*.⁵⁸ Aside from the issue related to the origins of this anthology and / or these anthologies, a comparison with the *De monarchia*, another composite work included in the Pseudo-Justinian corpus, helps us understand *Coh. Gr.*'s general intention of revealing Greek expressions of monotheism. In the *De monarchia*, the anonymous compiler sets out to prove the truth of monotheism to an implied polytheistic reader, using only quotations from polytheistic Greek literature. The excerpts, however, are forgeries ascribed to known authors or characters such as Pythagoras, Aeschylus, Sophocles, Philemon, and Orpheus. The work never quotes from either the Old or the New Testament and never refers to any specifically Christian doctrine, but it rejects idolatry and views God as the one creator and judge. The pseudepigraphic passages may have come from a single gnomologion, used both by Clement of Alexandria and the author of *Coh. Gr.* It is known that Eusebius was familiar with the *De monarchia*, which he defines as *περὶ θεοῦ μοναρχίας*.⁵⁹ Eusebius lists such a compilation among Justin Martyr's writings, without doubting its authorship. This means that an important Christian historian from late antiquity did not find it impossible that a Christian might have written a literary work with no reference to specific Christian doctrines or allusion to the New Testament.

4 Final Remarks

The inclusion of pagan (or purportedly pagan) sources is *prima facie* an apologetic concession: the anonymous author of *Coh. Gr.* is perfectly willing, in the case of Pythagoras, to define the manner of exposition of his philosophical doctrines as both mystical and symbolic. Συμβολικῶς and μυστικῶς are not terms solely used by Christians. Proclus, for example, applies these two nouns to qualify Pythagorean knowledge.⁶⁰ This parallel should encourage us to explore further contacts between ancient Christian (and, more specifically, Alexandrian)⁶¹ theologies and Neoplatonic schools,⁶² while keeping in mind the different ideological aims that lie behind the use of an almost identical terminology.⁶³ Nevertheless, for the pres-

⁵⁷ See Zeegers-Vander Vorst 1972.

⁵⁸ Cf. Daniélou 1961, 103–122.

⁵⁹ Cf. *Hist. eccl.* 4.18.4. We find a parallel statement in (Ps.-)Sophronius, *De viris illustribus* 23 (Gebhardt 1896, 22–23). On the Eusebian account of Justin's works, see SC 528, 29–31.

⁶⁰ Cf. *In Ti.* 1.7.30 (see Tarrant 2007, 100). Such terminology seems to be characteristic of the Neoplatonists' allegorical reading of ancient Greek philosophers: cf. Dillon 1976. On allegorical exegesis in Neoplatonism, see also Brisson 2004.

⁶¹ For the definition of a specific Alexandrian Pythagoreanism, see Bostock 2003.

⁶² See also Iamblichus' manipulation of Nicomachus' account at *Iamb. VP* 96–100, with the addition of details that are found also among Essenes and Christian monks. On this topic, see M. Giangiulio's essay in this volume.

⁶³ In *Coh. Gr.*, the expression διὰ συμβόλων μυστικῶς seems to locate Pythagoras, at least in part, in the general sphere of exegesis that had been promoted in Alexandrian schools at

ent, I would consider it premature to make any definite claim in this regard.⁶⁴ I wish merely to point out that it was possible, on the basis of a very similar methodological approach to ancient philosophy, to convert ancient philosophy into a “phase” in scholars’ theological progression (in the case of Iamblichus by seeking the agreement of Platonic theology with that of Orpheus, by way of Pythagoras). In Neoplatonism the use of terminology found also in Christian works aims to prepare scholars for true philosophy, that of Plato (or Plato as seen in the eyes of Neoplatonists), via Pythagoras.⁶⁵ Both Christian and Neoplatonic schools needed to link ancient philosophy with a higher level of interpretation, in order to find in it a support for their ideological *propria*.

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least since the Jewish schools of the Hellenistic period. On the relationships between *Coh. Gr.* and Alexandrian exegetical methodology, see Pouderon 2003.

64 More details in Edwards 2006, Watts 2006, 204–231, Remes 2008, 199–208, Digeser DePalma 2012. See also I. Fotini Viltanioti’s article in this volume.

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Transformations of Pythagorean Wisdom and Psychic ἄσκησις in Proclus' *Timaeus* Commentary

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The Platonists of late antiquity took Plato's dialogues to communicate the wisdom of Pythagoras. However, they believed that Plato combined this wisdom with what they took to be a distinctively Socratic φιλανθρωπία (cf. Numenius, fr. 24.71–5, Proclus, in *Tim.* I 7.25). In short, according to a Platonist like Proclus, Plato's dialogues do not merely contain the truth: they also present that truth in a way likely to transform souls through its reception. The act of reading a dialogue such as the *Timaeus* with a qualified teacher is thus a distinctly Pythagorean-Socratic ἄσκησις.

I begin by considering how Proclus supposed a Pythagorean would transmit knowledge. I then consider these general characteristics in relation to a specific instance of Pythagorean and Platonist teaching in the *Timaeus*: the order of the planets (Moon, Sun, Venus, Mercury, etc). Proclus ultimately accepts the Chaldaean ordering of the planets, which places the Sun in the middle of two triads on either side (Moon-Mercury-Venus, Sun, Jupiter-Saturn-fixed stars). He therefore must ask what Plato the Pythagorean intended by apparently giving us the wrong order? I argue that Proclus' answer is that good Pythagoreans do not trouble to indicate the spatial locations of actual material bodies. Pythagorean texts apparently about things as concrete as the planetary order should instead be thought of as symbolically revealing relations among higher causes. I illustrate how this strategy for understanding Pythagorean teachings about the stars and planets creates problems for those who are trying to get to the truth about what fifth-century Pythagoreans may have thought about astronomy. The Neoplatonic approach to communicating (allegedly) Pythagorean wisdom introduces distortions that we, as historians, resent. I conclude by speculating about the possible psychagogic purposes of their reading strategies.

My focus on the Neoplatonists and their understanding of Pythagoreanism means that this paper is not about Pythagoras or the early Pythagoreans per se. It is rather about what the pagan Neoplatonists of the fifth and sixth centuries CE regarded as the Pythagorean character of Plato's dialogues and of the *Timaeus* in particular. I will argue that in the act of reading the *Timaeus* with a master (like Proclus or Syrianus), the aspiring student of Neoplatonism was introduced to a particular kind of ἄσκησις – a spiritual exercise in which the student comes to

inhabit metaphors for seeing physical things, like visible stars and planets, as images of higher incorporeal causes. In particular, he (or she) learned to read Plato's physical theory in the *Timaeus* – which seems superficially to be about matters like the spatial location of planets – in terms of such higher causes. This act of reading the *Timaeus*, they supposed, was part of the process by means of which our souls are purified of the accretions that they acquire in the descent into Becoming and are thus made ready to revert upon the divine souls that mediate our relation to the intelligible.

In pursuit of this psychic transformation in their audience, the Neoplatonists' commentary practices also transformed the Pythagorean knowledge that they transmitted. These transformations were not pointless and stubborn re-writings of history or disingenuous fabrications of ancient Pythagorean teachings. Rather, they were part and parcel of a reading culture built around practices of self-transformation.

1 Plato's *Timaeus* as Pythagorean text

Modern scholarship on Plato's dialogue affords it varying degrees of Pythagorean authenticity. At one end of the spectrum there is Taylor's view that the speech of Timaeus did not represent Plato's views at all but was rather a mixture of Pythagorean mathematics and Empedoclean natural philosophy.¹ This idea has been largely rejected. But at the other end there is Kahn's common-sense observation that, though the details are Plato's own, he was working with themes that are Pythagorean in origin (p. 4).² There seems little doubt that Plato is tipping his hat to Pythagorean ideas in this dialogue: the speaker, Timaeus, is from Locri in southern Italy. His city is under the rule of excellent laws (20a2), as would befit a Pythagorean community, and he is an expert in astronomy (27a3–4).

Ancient Platonists had even stronger reasons to regard the *Timaeus* as a Pythagorean work. First there is the fact they were inheritors of the view of Numenius about the continuity of Plato and Pythagoras generally.³ Second, they believed that they were in possession of the Pythagorean original which Plato was thought to have amplified in his own *Timaeus* (cf. Proclus in *Tim.* I 1.8–16; 7.19–22). The work ascribed to Timaeus of Locri, *On Nature*, is thought by us to be a later work influenced by Plato's *Timaeus* – and not the other way round⁴ – but Proclus took the work to be exactly what it advertised itself as: a Pythagorean precursor to Plato's dialogue. Proclus did not believe that Plato follows Timaeus of Locri's original slavishly but he nonetheless regarded Plato's physical theory as containing distinctively Pythagorean elements.

Proclus takes the tone of the *Timaeus* to be a beneficial mixture of the Socratic and Pythagorean style. What defines the Pythagorean style?

1 Taylor 1928, 11.

2 Kahn 2002, 4.

3 Numenius, fr. 1, 55 (Des Places).

4 Baltes 1972.

In the Pythagorean tradition, it [sc. the *Timaeus*] contains loftiness of mind, intuition, inspiration, a tendency to link everything with intelligibles, to depict the Whole in terms of numbers, to give an indication of things in a symbolic and mystical fashion, to remove one's focus on particulars, to make assertions. (*in Tim* I 7.26–31)⁵

To get a clearer idea of what this list of abstractions really amounts to, let us consider something that Proclus regards as an example of the dialogue's Pythagorean style. This emerges in relation to Proclus' understanding of the role of the recapitulation of the previous day's conversation at the start of the *Timaeus* (17a1–19b2). In general terms the Pythagorean style is one in which the text's real meaning is cloaked in metaphor. It is rebarbative to those who are not prepared to understand it and this coincides with the tradition of secrecy in Pythagoreanism. This Pythagorean style in Plato is counterbalanced by the Socratic character of the dialogue.

From the considerate Socratic [manner] it possesses approachability, gentleness, a tendency toward demonstration, to studying reality through images, to moral content, and so on. (*in Tim.* I, 7.31–8.1, trans. Tarrant, 2007)

So while the Pythagorean inheritance is off-putting and exclusive, the Socratic aspects of the dialogue make it approachable. Now, you might well conclude that such a mixture would have all the appeal of a dish containing both liver pâté and chocolate ice cream – each a good thing on its own, but not in combination. Proclus, however, is quite confident of the benefits of such a mixture, which combines Socratic demonstrations with Pythagorean assertions.

The most pervasive aspect of the dialogue's Pythagorean character consists in the fact that it (allegedly) presents higher realities through images. It is axiomatic for the Neoplatonists that “all things are in all, but in each in a manner that is appropriate to the subject.”⁶ One and the same god is present in the intelligible mode of being at this point in the ontological hierarchy, intellectually at another point, psychically at another point, and so on.⁷ In Proclus' *Commentary on the Timaeus* this methodological principle is ascribed Pythagorean authority. Having divided things into intelligibles, physical things, and the intermediate mathematical, the Pythagoreans insisted that the intermediates and the physical things are fore-

5 *in Tim* I 7.26–31 ἔστι γὰρ ἐν αὐτῷ παρὰ μὲν τῆς Πυθαγορικῆς συνηθείας τὸ ὑψηλόνουν, τὸ νοερὸν, τὸ ἐνθεον, τὸ ἀπὸ τῶν νοητῶν πάντα ἐξάπτον, τὸ ἐν ἀριθμοῖς τὰ ὅλα ἀφοριζόμενον, τὸ συμβολικῶς τὰ πράγματα καὶ μυστικῶς ἐνδεκνύμενον, τὸ ἀναγωγόν, τὸ ὑπεραίρον τὰς μεριστὰς ἐπιβολάς, τὸ ἀποφαντικόν· trans. after Tarrant 2007.

6 Iamblichus took Numenius to be committed to this principle (Numenius, fr. 41, Des Places). After him, see Porphyry, *Sent.* 10; Syrianus, *in Metaphys.* 81.38; and of course Proclus himself in *ET* proposition 103.

7 On the adverbial denomination of different modes of being in Proclus, see Baltzly 2008.

shadowed in a primal manner among the intelligibles, while both the intelligibles and the physical things are present in the intermediates. The intelligibles are present in the mathematical as icons or images, while the physical things find their paradigms in the mathematical. Both intelligibles and intermediates are present in physical things as glimmers or ἰνδάλματα.

This relation among objects permits a corresponding relation among aspects of Plato's text. What appears to be about one thing (for instance, a recapitulation of the previous day's account of the city, in the *Republic*) may in fact be an image in the human realm of a higher cosmic cause.

The discussion of the constitution and the short condensed summary of the classes in it makes a contribution to the entire account of the cosmic creation. For they act like images from which it is possible to refocus on the universe. Indeed, the Pythagoreans were the outstanding exponents of this very method, tracking down the similarities in realities by way of analogies, and passing from images to paradigms. That is what Plato is doing now too, showing us at the outset things in the universe as seen in human lives, and enabling us to study them (*in Tim.* I 33.4–10, trans. Tarrant 2007).

Proclus generously supplies to Plato's text an implicit division into seven classes present in the city (though Plato mentions only two) and correlates these classes with the seven heavenly bodies.

Moon	farmers
Venus	those who preside over marriages
Mercury	those who arrange the lotteries associated with the marriages
Sun	educators and judges
Mars	warriors
Jupiter	kings
Saturn	philosophers

This *analogia* illustrates what Proclus takes to be most characteristic of Plato's Pythagorean style of communication: the correlation of things at various levels of the ontological hierarchy and the idea that one thing in Plato's text may symbolically stand for its ontological correlate at a higher level.

In a similar fashion, Proclus gives a Pythagorean reading to the entire episode about Atlantis. Though this appears on the surface to be a story about the war between the Athenians and the Atlanteans, for Proclus it is in fact a symbolic presentation of the opposing forces that order the visible cosmos. This is not to say that Proclus, Iamblichus, and Syrianus treated the Atlantis story merely as fictional allegory – they do not preclude the possibility that it had some basis in fact – but they insist that its role in a dialogue about nature is to provide an image of causes that are not confined to the human realm:

... we prefer, too, to take this rivalry also from the human realm and to distribute it, in this same way and according to a similar pattern, across the whole cosmos and particularly among generated things, so giving widespread meaning to all things, and studying how they partake of this rivalry in accordance with the variety of their powers. (*in Tim.* I 78.1–6, trans. after Tarrant, 2007).

Proclus immediately goes on to illustrate this rivalry by adverting to the One and the Indefinite Dyad, as well as the opposition (e. g. between Rest and Motion) among the *Sophist's megista gene*.

The entire approach to the opening pages of the *Timaeus* exhibits just those features that Proclus associates with Plato's Pythagorean style: "to link everything with intelligibles, ... to give an indication of things in a symbolic and mystical fashion, to remove one's focus on particulars." With this prelude about Plato's Pythagorean means of communicating his meaning in mind, let us turn to the order of the planets.

2 The Pythagorean Order of the Planets

There are several longstanding historical problems about the astronomical views associated with the ancient Pythagoreans. On the one hand, we have the testimony of Aristotle in *De Caelo* II.13 that the Pythagoreans posited a central fire at the middle of the cosmos and made the Earth orbit it.⁸ On the other hand, in his commentary on this passage in Aristotle, Simplicius attributes to some of the Pythagoreans a geocentric theory.

Aristotle also informs us that the Pythagoreans posited an additional planet – the Counter-Earth. Aëtius incorporates this Counter-Earth into his account of Philolaus on the order of the planets (44 A 16 DK):

<i>Philolaus' Pythagorean order</i>	<i>Platonic order</i>	<i>Chaldaean order</i>
Hestia – the central fire		
Counter-Earth		
Earth	Earth	Earth
Moon	Moon	Moon
Sun	Sun	Mercury
Venus	Venus	Venus
Mercury	Mercury	Sun
Mars	Mars	Mars
Jupiter	Jupiter	Jupiter
Saturn	Saturn	Saturn
Fixed stars	Fixed stars	Fixed stars

⁸ *Cael.* 293a.20–23 οἱ περὶ τὴν Ἰταλίαν, καλούμενοι δὲ Πυθαγόρειοι λέγουσιν· ἐπὶ μὲν γὰρ τοῦ μέσου πῦρ εἶναί φασι, τὴν δὲ γῆν, ἐν τῶν ἀστρον οὖσαν, κύκλῳ φερομένην περὶ τὸ μέσον νύκτα τε καὶ ἡμέραν ποιεῖν.

Aëtius (44 A 16 and 17 DK) says only that the five planets come “after the Sun.” However, Alexander (*in Metaphys.* 40.24) adds that according to the Pythagoreans Mercury is further from the Earth than Venus. We may plausibly assume, I think, that the planets above Mercury conform to the order accepted by Plato, Aristotle, and others who came later.⁹

If we leave out Hestia and the Counter-Earth, then Plato and the Pythagoreans are in agreement about planetary order. Such a confluence of ancient wisdom would be (celestial!) music to a Neoplatonist’s ears. Much of the work of the ancient Neoplatonic commentary tradition consists in efforts to show the agreement of Plato, Pythagoras, Orpheus, and other ancient authorities with one another. However, both the Platonic and Pythagorean order differ from the view about the order of the planets that had won wide acceptance by the time of Proclus: the Chaldaean order. The latter positions the Sun in the middle of the planetary order, with a triad of stars on either side of it. The Chaldaean order is also the one that was accepted by Ptolemy and commonly used in astrology. Proclus is committed to defending the Chaldaean order as the correct one because he thinks that it is stated unambiguously in the *Chaldaean Oracles* and that these are divine utterances. He first nudges the Pythagorean order into line with the Chaldaean one and then interprets Plato as addressing higher causes in a Pythagorean manner.

By the time of Proclus there was in circulation an alternative account of the Pythagorean order of the planets to that provided by Aëtius and Alexander. Among the sources that Proclus was undoubtedly familiar with, we find in Theon of Smyrna (138.9, ff.) an attribution of the Chaldaean order to “some” of the Pythagoreans.¹⁰ Proclus himself assigns the Chaldaean order of the planets to the Pythagoreans, together with a correlation between the elements. These correlations show that all the elements are found everywhere in the universe – albeit in different gradations – and the intermediate elements of air and water function to bind the extreme terms of fire and earth together. Such a notion, that all elements are everywhere and that fire and earth are bound by the intermediate elements of air and water, makes Pythagorean doctrine agree with Plato, and this is one of Proclus’ main objectives. The order of planets and elements given at *in Tim.* II 48.22 ff is as follows:

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- 9 This would agree with Eudemus’ report (= Anaximander A 19) that the Pythagoreans were the first to give the planets’ order – i. e. the order that Plato, Aristotle, etc. took to be the order.
- 10 *De utilitate mathematicae* 138.9–18: τὴν δὲ κατὰ τόπον τῶν σφαιρῶν <ἢ> κύκλων θεοῖν τε καὶ τάξιν, ἐν οἷς κείμενα φέρεται τὰ πλανώμενα, τινὲς μὲν τῶν Πυθαγορείων τοιάνδε νομίζουσι· προσγειότατον μὲν εἶναι τὸν τῆς σελήνης κύκλον, δεύτερον δ’ ὑπὲρ τοῦτον <τὸν τοῦ> Ἑρμοῦ, ἔπειτα τὸν τοῦ φωσφόρου, καὶ τέταρτον <τὸν> τοῦ ἡλίου, εἴτα τὸν τοῦ Ἀρεως, ἔπειτα τὸν τοῦ Διός, τελευταῖον δὲ καὶ σύνεγγυς τοῖς ἀπλανέσι τὸν τοῦ Κρόνου· μέσον εἶναι βουλόμενοι τὸν τοῦ ἡλίου τῶν πλανωμένων ὡς ἡγεμονικώτατον καὶ οἷον καρδίαν τοῦ παντός. For other examples, see Burkert 1972, 318.

Earth	earth, terrestrial
Moon	earth, aetherial
Mercury	water, aetherial
Venus	air, aetherial
Sun	fire, aetherial
Mars	fire, celestial
Jupiter	air, celestial
Saturn	water, celestial
Fixed stars	earth, celestial

Note that, in the “Pythagorean” reading of the seven classes in Callipolis given above, the planets correspond to the increasingly excellent classes of inhabitants in a manner that encodes the Chaldaean order. It seems clear that Proclus supposes that the Pythagoreans agree with the divine revelation of Julian the Theurgist that the Sun sits in the middle, between Mars and Venus.

One might well wonder what the evidential basis is for attributing this view of elemental bonds to the Pythagoreans. Proclus begins his report of the “Pythagorean” elemental bonds from an identification of the Moon as “an aetherial Earth” and then quotes one of his favourite passages from Orpheus the Theologian, identifying the Moon as another, limitless Earth with mountains, cities, etc.¹¹ Its composition from aether is not part of this passage, which states only that it is in some way a counterpart to Earth and similar to it. But presumably if the Earth is composed of terrestrial earth and the Moon is another Earth, then the Moon must be composed of aetherial earth. Porphyry assigns this notion to the Egyptians.¹² We may dispute whether Herodotus 2.81 indicates the confluence of Orphic, Egyptian, and Pythagorean wisdom, but the Neoplatonists clearly felt no such scholarly compunctions: Egyptian, Orphic, and Pythagorean wisdom were all regarded as strands in the same great tradition. Hence Proclus felt no compunction about putting these pieces together to give us the alternative Pythagorean order, which aligns with the Chaldaean placement of the Sun.

The Counter-Earth and the central fire that figure in Aristotle’s report and in Aëtius are conspicuously absent from both the account of the order of planets given in Theon and in Proclus’ *Commentary on the Timaeus*. Where have they gone? It is in this context – a context in which the reports of Pythagorean astronomical views in Aëtius or Aristotle are massaged into conformity with the Neoplatonist commitment to the synthesis of all ancient wisdom – that I think we should place Simplicius’ famous report about *some* of the Pythagoreans. Let us review the details of this report.

11 Kern 1922, fr. 91.

12 Sodano 1964, fr. 16.

The more genuine Pythagoreans describe the central fire as participating in the demiurgic power that enlivens the entire Earth and re-heats that which has cooled off ... They called the Earth a “star” in as much as it too is an instrument of time, for it is the cause of days and nights, since it creates day when the part toward the Sun is illuminated and makes night corresponding to the cone that comes about from its shadow. The Pythagoreans called the Moon the Counter-Earth, just as they called the Moon an aetherial Earth, in as much as it intercepts the Sun’s light – a feature distinctive of the Earth – and in as much as it forms the boundary of the heavens, just as Earth does for the sublunary region.¹³

Each of these features has a clear counterpart in Proclus’ exegesis of Plato’s *Timaeus*. We have already seen that the Moon is an aetherial Earth in Proclus’ account of Pythagoreanism. The demiurgic power that enlivens the Earth and warms it correlates well with his exegesis of *Timaeus* 40b8–c3. According to Proclus, there are many different levels at which the Earth, Ge, is manifested: there is an intelligible Earth, an intellectual Earth, and finally there is the divine soul and aetherial body that is most truly Earth. It is distinctive of this divine composite that it “enlivens” things (*in Tim.* III 136.4 and 16). Proclus invokes the authority of the Pythagorean Timaeus to fend off readings of Plato’s text that would have the Earth move (III 138.4; cf. *On the cosmos* 97e). The Earth might revolve in a circle for Heraclides of Pontus, but not for a Pythagorean like the author of the book from which Plato has constructed his own *Timaeus*! The phrase “instrument of time” is also Platonic (*Tim.* 41e5, 42d5). Proclus likewise explains the sense in which the Earth is the “guardian and creator of day and night” (*Tim.* 40c1–2) in terms of the conical shadow of the Earth. Finally, the idea that the Moon – this aetherial Earth – marks the boundary of the heavens is one of Proclus’ favourite themes. The Moon is an isthmus between Being and Becoming, the celestial and the sublunary realm (*in Tim.* II 87.13, 104.19).

Burkert rightly suspected that the report of a geocentric model of the universe from Simplicius did not represent any “mysterious, secret, pre-Philolaus astronomy, belonging to Pythagoras or the Pythagoreans.”¹⁴ We have just seen in detail how the passage in Simplicius probably arose. The Neoplatonists were committed to the Chaldaean order of planets and to a geocentric theory on the basis of two authorities. For the order of the planets, they deferred to the gods speaking

13 *in Cael.* 7.512.9–20 οἱ δὲ γῆν σιώτερον αὐτῶν μετασχόντες πῦρ μὲν ἐν τῷ μέσῳ λέγουσι τὴν δημιουργικὴν δύναμιν τὴν ἐκ μέσου πᾶσαν τὴν γῆν ζωογονοῦσαν καὶ τὸ ἀπεψυγμένον αὐτῆς ἀναθάλπουσαν· ... ἄστρον δὲ τὴν γῆν ἔλεγον ὡς ὄργανον ὡς αὐτὴν χρόνου· ἡμερῶν γὰρ ἔστιν αὕτη καὶ νυκτῶν αἰτία· ἡμέραν μὲν γὰρ ποιεῖ τὸ πρὸς τῷ ἡλίῳ μέρος καταλαμπομένη, νύκτα δὲ κατὰ τὸν κῶνον τῆς γινομένης ἀπ’ αὐτῆς σκιάς. ἀντίχθονα δὲ τὴν σελήνην ἐκάλουν οἱ Πυθαγόρειοι, ὥσπερ καὶ “αἰθερίαν γῆν,” καὶ ὡς ἀντιφράττουσαν τῷ ἡλιακῷ φωτί, ὅπερ ἴδιον γῆς, καὶ ὡς ἀποπερατοῦσαν τὰ οὐράνια, καθάπερ ἡ γῆ τὸ ὑπὸ σελήνην.

14 Burkert 1972, 317.

through Julian the Chaldaean. For the Earth's place at the centre of the universe, they deferred to the divine Plato. Their notions of Pythagoreanism, and the apparent precedent of Timaeus of Locri's own dialogue, afforded them the interpretive latitude to present Pythagorean astronomy as in agreement with their other sources of wisdom.

3 Making Plato agree with the Chaldaean order of planets

The text of Plato's *Timaeus* and his *Republic* are far less malleable than the vaguely defined tradition of Pythagoreanism. There is no room for doubt that Plato's order of the planets differs from that of the Chaldaeans. In his *Commentary on the Republic*, Proclus confronts this fact directly:

Thus, Plato too followed the astronomers of his time, by which it is also clear that the father of the myth [of Er] did not announce all things as he himself saw them, but rather he added such things as were most widely accepted at the time – as is doubtless the case with the claim that the Sun is seventh from the sphere of the fixed stars and immediately above the Moon. For it is not only here [in the myth of Er] that one finds this idea, but he also *appears* to say this in the *Timaeus*. I also know that some astronomers say that the Sun is in the middle of the seven planets, although this has not been demonstrated through assumptions that are altogether necessary. How, in general, they have tried to do this, we have discussed sufficiently in the *Commentary on the Timaeus*. Nonetheless, when one hears from the Chaldaeans among the theurgists that “the god then integrated the Sun among the seven and made the six other Zones dependent upon it,” or one hears from the gods themselves that “god established the solar fire in the place of the heart” (*Or. Chald.* 58), then might you not fear that – as Ibycus said – “I have traded honour among men for sinning against the gods.” (A line that Socrates also quotes in the *Phaedrus* [242d1]). While I adhere to what has been revealed by the gods, I also say that on these matters Plato conformed with the astronomy of his time, for Aristotle too thought this, adhering to the astronomical views of those around Callippus. (*in Remp.* II 220.1–21)¹⁵

So in his *Commentary on the Republic*, Proclus takes Plato to be addressing the people of his day who all accept this order of the planets. There is the implication, however, that this concession to considerations of audience is not all there is to the matter.

¹⁵ All translations from Proclus' *Commentary on the Republic* are part of the manuscript I'm working on with John Finamore and Graeme Miles. This will come out as three volumes with Cambridge University Press in a series modelled on the translation of Proclus' *Commentary on the Timaeus*. Volume 1 should be published in 2017 with subsequent volumes following at two year intervals.

In the *Commentary on the Timaeus*, Proclus' approach to this issue is more nuanced. The *Commentary on the Republic* alludes to the fact that he does not think that Ptolemy's arguments prove that the Sun lies in the middle of the planetary order, between Mars and Venus. Thus, if Plato were to assert that it lies just above the Moon and before Mercury, he would not be asserting anything that is demonstrably false, at least on the basis of considerations adduced by the astronomers. The *Commentary on the Timaeus* contains a lengthy discussion of why Ptolemy's arguments for the Chaldaean order are not probative. Rather, what shows that Plato is wrong are the divine pronouncements of the *Chaldaean Oracles*.¹⁶

In any event, the true value of Plato's distinctively Pythagorean natural philosophy lies not in its attention to the specific spatial relations among heavenly bodies, but to the non-spatial relations among their intelligible causes. Having acknowledged that Plato's planetary order does not agree with that of the *Oracles*, Proclus goes on to explain the Platonic order given in the *Timaeus* as resulting from the fact that Plato was attending to the way in which the Sun and Moon are linked together at a higher level of causes. Both visible planets are the result of the same hypercosmic cause, as indicated by the fact that the Moon's light is borrowed from the Sun.

Proclus' attitude in these matters follows that of Iamblichus.¹⁷ According to Iamblichus, the Platonic order of the planets is due to the causal role that the planetary gods play in relation to Becoming. The Sun and Moon (whose light is borrowed) are the Father and Mother of Becoming respectively, while Mercury and Venus work in close association with the Sun. The specific causal roles that they play in relation to the sublunary realm of Becoming appear to be adapted from astrological notions of planetary influence. Neither Proclus nor Iamblichus say so explicitly, but it seems to me that their general strategy is to read Plato's claims about spatial order as claims about associations among causes. This affords Plato a "higher truth" to reveal through his claims about the order of the planets.

According to Proclus, then, Plato communicates the point that the Sun and Moon stem from the same hypercosmic cause by *appearing* to give them spatial positions proximate to one another. This re-reading of the order of the planets in Plato's dialogues, that is, in terms of the symbolic substitution of the relations among the higher causes of the planets for the apparent spatial position of the planets, exactly conforms to the Pythagorean treatment of the story of the war between Athens and Atlantis. In each case, what seems to be about one thing – relations among corporeal things like planets or nations in the realm of Becoming – is actually about the paradigmatic causes of the entire cosmos.

16 Cf. Proclus, in *Tim.* III 62.10–63.31.

17 Iamblichus fr. 70 (Dillon) = Proclus, in *Tim.* III 65.7–66.8.

4 Pythagorean ἄσκησις and moral progress

From the point of view of modern scholarship, this “Pythagorean” approach to interpreting Plato and the other Pythagorean texts is deeply frustrating. We assume that Proclus, Iamblichus, and the other late antique Platonists had access to books we no longer possess and we would like them to tell us more about what their predecessors really thought. But that is not why *they* read and interpreted Plato. The Iamblichean reading course of the dialogues corresponds to a course of moral progress through degrees of the virtues and the re-ascent of the soul to the divine.¹⁸ For my own part, I do not think that the act of reading and interpreting Plato is meant as a separable *means* to this goal. It is not that Plato tells us what the cathartic and the contemplative virtues are and *then* we Platonists work on acquiring them. Rather, I think that the Neoplatonists supposed that one becomes virtuous *in* the act of reading Plato’s dialogues with a master. Elsewhere I have called this approach perlocutionary hermeneutics.¹⁹ Its core consists in the acquisition of new conceptual resources for understanding the world and one’s place in it. It is the shaking off of these ways of seeing which are naturally recommended to the soul by its experience of embodiment, and the acquisition of materials for the construction of new metaphors to live by. The objective is not merely to read the texts of Plato but to understand one’s experience in terms of metaphors readily found in them, or in terms of metaphors constructed from materials that are suitably Platonic. Central to the construction of these new metaphors was the identification of heretofore undiscerned similarities between one thing and another.

The construction of a Pythagorean *analogia* that connects the classes in a hypothetical city with the various planets provides this kind of similarity by which one thing can be seen in terms of another. Who knows what further metaphorical inferences one of Proclus’ students might make once he began to see a farmer ploughing his field as symbolically linked with the Moon, with Artemis, with the feminine, as living in cycles? It is grist for a conceptual mill whose purpose is to penetrate beyond the apparent plurality and disconnectness of things to see the underlying unity that contains everything in the world – from the farmer behind the plough to the urbane Platonic philosopher – as part of a single living organism, the living cosmos.

Proclus’ re-reading of the Platonic order of planets from one of spatial proximity to a “proximity” of causal influence facilitates at least two ways of re-interpreting our experience. First and most obviously, it is another chapter in the long-running Neoplatonic campaign to shake off the priority of notions of reality that involve place. Thus, for instance, Plotinus invites us to substitute the notion of dependence that can attach to the Greek word *en* in place of the spatial relation that is more commonly meant. We should think of the body as “in the soul” in accordance with this first way of thinking, rather than wondering how the soul can

18 Cf. Westerink 1962, xl.

19 Baltzly 2014, 805.

be “in the body” in the second way of thinking. Proclus’ re-reading also paves the way for seeing the influence of the celestial gods as close to us. When we think simply in terms of bodies located in space, these gods are indeed far away. But when we think of their order in terms of relations of cooperation in the administration of providence, then the spatial separation no longer seems so salient. Astrology tells us part of the story about how their role in the providential order is exercised, or at least Proclus’ fellow Platonists thought it did. Now, we modern philosophers may not regard it as progress to become alive in this manner to the influence of the celestial gods in the futures of those born into our midst. But for Proclus’ audience it provided the basis for a keener awareness of the unity of all things. Our experience as embodied souls recommends to us a sense of vast separation from visible bodies in the heavens, a separation that metaphorically becomes “the vast indifference of heaven.” It is the opposite of Stephen’s experience in Joyce’s *Portrait of the Artist as a Young Man*.

He felt above him the vast indifferent dome and the calm processes of the heavenly bodies; and the earth beneath him, the earth that had borne him, had taken him to her breast. (p. 155).

But of course from the Platonist’s view it is not merely the Earth that supports Stephen. Nor will he return to his native star simply by seeing the celestial bodies so far above him as alien to him and indifferent to his plight. He needs new metaphors to live by. It is this provision of resources for constructing similes and analogies that lies at the heart of Neoplatonic reading strategies. Given their conception of Pythagoreanism, it is a distinctively Pythagorean ἀκῆσις even if it is not – by our lights – level-headed scholarship in the history of philosophy.

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The Active and Monastic Life in Humanist Biographies of Pythagoras*

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Once there lived a pious and virtuous man who inspired all around him – statesmen and merchants, youths and matrons – to give up their luxurious ways and embrace a life of modest temperance. He founded a community where hundreds of young men took a sacred vow to follow the same strict regimen of study, prayer, silence, contemplation, and modesty in dress and diet which he imposed upon himself. His great following kindled suspicion in nearby rulers, and he and his followers faced persecution, but many still believed in him. After his death his teachings echoed in the works of all later theologians, and his rule for organizing a sacred community became a model for many after him.

The only untrue word in this biographical sketch – if we believe our Renaissance sources – is the word “once,” since this narrative applies to multiple figures: St. Francis, St. Dominic, many other monastic founders and reformers like Antony of Padua or Bernard of Clairvaux, and, according to every Renaissance scholar who took up pen to describe him, Pythagoras. As the huge range of modern treatments demonstrates, Pythagoras can be presented in many ways: as a mathematician, a mystic, a cult leader, a proto-scientist, a proto-hippie, or a proto-Christian. In contrast, treatments of Pythagoras during the early modern classical revival were astonishingly consistent. From the early fifteenth century right to the dawn of the seventeenth, scholars with remarkably diverse backgrounds, nations, confessions, and intended audiences nonetheless produced strikingly similar depictions of a pious, virtuous, and above all monastic Pythagoras. Even Petrarch, who criticized Pythagoras, saying his belief in reincarnation stemmed from “the silliness of old maids,” praised his “exceedingly upright character” and stressed the quasi-monastic practice of five years’ silence for Pythagorean initiates, qualities which continue to dominate humanist portraits of Pythagoras for two centuries.¹ This consistency is particularly remarkable since, unlike

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1 *Rerum Familiarium* X.3, “Pythagoras was a man of outstanding genius, yet his cleverness, separated by a wide margin from the truth, often penetrated no further than does the silliness of old maids, hence that ridiculous transmigration of souls into many and varied bodies and his rebirth as a philosopher from the warrior, Euphorbus, who had been in the Trojan

the many classical figures about whom practically no biographical information survives, three separate ancient lives of Pythagoras surfaced in the Renaissance, those of Diogenes Laertius, Iamblichus, and Porphyry, plus the commentary by Hierocles and many other ancient and medieval references. These sources provided a cornucopia of claims and anecdotes which scholars could choose from when deciding how to transfer Pythagoras to their present, and transform him to fit their own agendas and visions of the ancient world. That the Renaissance Pythagoras remains so consistently priestly and monastic in so many accounts reveals the idealized ancient religion of the philosophers which all these scholars – whether early or late, Latinist or Hellenist, Protestant or Catholic, court favourite or struggling scholar – saw as a defining core of the ancient world, of their own practices, and of the rebirth they were attempting to effect.

For Renaissance humanists, the presentation of ancient philosophers' lives – separate from their texts and ideas – was not just an informative process but an apologetic act of self-fashioning. Supporters of the classical revival worked to convince society and patrons that a humanist was radically different from other learned professionals of the age: more philosophical than a secretary, more lettered than a lawyer, more galvanizing than a scholastic, more spiritual than a doctor, more creative than a tutor, and more political than an artist, architect, or musician, while fulfilling similar functions to all. Yet, the case for humanism's novelty rested largely on the opposite of this: the premise that humanist practices were not new at all, but a revival or continuation of an ancient tradition of philosopher-authors which had been tragically interrupted by medieval barbarity.

Thus, when humanists depicted ancient sages, they were also presenting their own role models, the archetypes they wanted to embody and succeed, and whose activities and creations they needed patrons to fund. Humanist arguments for the piety, virtue, and spiritual and worldly usefulness of these classical figures also defended their own orthodoxy and utility. Orthodoxy was essential, since humanists had to establish why it was safe and pious for them to read, teach and spread the ideas of thinkers who had antedated or, worse, battled Christianity. This apologetic programme crossed genres, so dedicatory letters, commentaries, and other editorial paratexts served many of the same functions as formal *vitae*, and the most numerous and often the most telling representations of an ancient thinker were those created by editors to accompany translations and editions. Such informal *vitae* were particularly central for Pythagoras, since the availability

war, hence that famous metempsychosis which I marvel could have been accepted by Plato or Aristotle. But I marvel still more at Origen, who seems to have embraced the same madness and therefore deserved the condemnation of Jerome, who admired and praised him, as well as of other followers of the truth. But lest this encounter with Pythagoras prompt me to digress, the fact remains that, whatever his intelligence, he did possess an exceedingly upright character as a result he was given the highest honours during his lifetime, while after his death he supposedly joined the council of the gods and his house was considered a temple by posterity. What was the first precept of the man? That his disciples observe five years of silence." Trans. Aldo Bernardo, New York, 2014.

of several classical accounts meant that humanist presentations of Pythagoras often took the form, not of new accounts, but of introductions to ancient ones.

Thus, in a sense, the first Renaissance scholar to take Pythagoras' life in hand was the Sicilian Hellenist and book-hunter Giovanni Aurispa (1376–1459). His voyages to Byzantine lands brought back to Florence, in the 1420s, the manuscript of Diogenes Laertius which enabled Ambrogio Traversari's immensely influential Latin translation of 1433. Then, in 1441, Aurispa acquired several works of Iamblichus along with Hierocles' commentary on the *Golden Verses*.² Aurispa laboured for years in the East to acquire strong Greek in a generation in which Greek was rare in the West and when most Greek teachers were Byzantine scholars accustomed to teaching native speakers of modern Greek, who struggled to adapt their grammars and methods to students who spoke only Romance or Germanic vernaculars.³ Thus, Aurispa's eastern voyages, and especially his extraordinary Greek training, gave him privileged, if not unique, access to information about Pythagoras in the mid-fifteenth century, when Europe was still decades away from the print explosion that would offer widespread access to ancient lives by Diogenes Laertius (Latin printed 1472, Greek 1533), Iamblicus (Greek 1598), and Porphyry (Greek 1610).⁴

When in 1449 Aurispa dedicated his Latin translation of Hierocles' commentary on the *Golden Verses* (printed 1474) to Pope Nicholas V, who, before his election, had funded many of Aurispa's travels and purchases, the dedication contained, not a formal *vita*, but the first spectral Renaissance sketch of Pythagoras' character. Aurispa frames the dedication around a parallel between ancient literature and ancient architecture, both arenas which his present age neglects, and whose surviving ancient treasures continue to be dismantled and destroyed.⁵ This celebrates Nicholas' own famous efforts to preserve and repair the architectural and literary remains of antiquity, especially Rome's marbles and Greek letters. Aurispa also focuses on the extraordinary "usefulness to the reader" (*legenti utilitas*) of Pythagorean thought, which "hardly differs from Christianity" (*parum... a fide christiana differt*).

This characterization of Pythagoras as a stone in the edifice of Christianity is implicit rather than explicit, but one can already see the shape of what Marsilio Ficino will do in the next generation, using the suggestion of St. Ambrose that Pythagoras had a Jewish father to present a genealogy of philosophical sages as a further foundation beneath the rock that is St. Peter, extending deeper in time through tiers of freshly-excavated sages – Plotinus, Plato, Philolaus, Pythagoras, Aglaophamus, Orpheus, Hermes Trismegistus, Zoroaster – down to Moses,

2 Hankins / Palmer 2008, 62; Celenza 2001, 13–14.

3 See Ciccolella 2005 & 2008.

4 Hankins / Palmer 2008, 54–55, 62–63.

5 Hierocles 1474, *In aureos versus Pythagorae opusculum* (trans. Aurispa), Padova, f. a2^r.

whom Ficino presents as almost a direct source of Pythagoras' thought.⁶ Aurispa, a generation earlier, is more modest than Ficino, claiming that Pythagoras will reinforce rather than add new truths to the Christian consensus. Virtuous Pythagorean doctrines, Aurispa stresses, can add nothing to Pope Nicholas' ample virtue, but nonetheless it is pleasing to read that which confirms one's own beliefs.⁷ Finally, addressing the frustrations of settling for the imperfect experience of reading a translation, Aurispa claims that language is no great loss since, "Pythagoreans strove for things themselves and for usefulness, not words."⁸ This last claim, that the language of the *Golden Verses* is less important than their content, is at odds with the focus on elegant language which was one of the great humanist claims to superiority over scholasticism. Rather than the elegance of Cicero or Virgil, Aurispa's Pythagoras excels (and surpasses the scholastics) because of the clarity, purity, and simplicity of the moral messages in the *Golden Verses*, which, much like the *Little Flowers of St. Francis*, need no literary ornamentation to be the "words that sting and bite," which Petrarch had claimed were so much more effective at spurring the reader to virtue than any Thomist syllogism.⁹

Even the structure of Hierocles' treatment of the *Golden Verses* contributes to Aurispa's sketch of Pythagoreanism as an ancient humanism. Aurispa's Pythagoras supports strong civic engagement and the active life – not at all our modern readings of Pythagoreanism, but one which aligns perfectly with the ideals of civic virtue and political engagement which were central to the Petrarchan project of healing Italy and Europe by surrounding the ruling class with virtuous councilors, as Castiglione depicted in the *Courtier*. Hierocles' treatment of the *Golden Verses* begins with a description of what Aurispa confidently renders as Pythagorean opinions on God and divine virtue. After that seeming affirmation of proto-Christian orthodoxy, the commentary proceeds in two sections, which a modern editor might call, firstly, practical virtues focused on forming a good person, and, secondly, spiritual virtues focused on surpassing human nature. Aurispa's translation instead presents the first section as civic and political virtues likely to produce a great citizen or statesman, then the second as interior virtues which further strengthen morality and faith. The potency of Aurispa's Christianized rereading is documented by one copy of the 1474 print edition, where a fifteenth-century reader transcribed into the margin favourite words and

6 See Joost-Gaugier 2009, 27–30; on Ficino's genealogy of sages, which varied over Ficino's works, see Hankins 1990, II, 643–644. The Ambrose passage is CSEL LXXXII, 39 and was employed by Ficino and others to suggest that Pythagoras inherited his ideas almost directly from Moses; see Hankins & Palmer 2008, 65.

7 "...ut neque doctrinae neque virtuti tuae quicquam addi possit, placebit nihilominus legere ea quae sententiam tuam confirmabunt." Hierocles 1474, f. a2^v.

8 "Rem enim pythagorei quaesiverunt & utilitatem non verba." Ibid.

9 *De Ignorantia* 22.

phrases such as “pius,”¹⁰ “Iusiurandum divinae legis custos est,”¹¹ and “Decet amatores dei.”¹² The same reader used emphatic underlining and a maniculum by the word “perditionem,” a word choice which, in a passage on how inner tranquillity helps the sage face bad fortune, makes Aurispa’s translation imply that it helps against damnation or perdition, implying that Pythagoras believed in something like a Christian Hell.¹³ Neither Aurispa’s translation nor its preface is a formal *vita*, but for both translator and reader the character of Pythagoras the proto-Christian shines through. Clear by implication is his correspondingly pious, monk-like, yet also active civic life.

Marsilio Ficino (1433–1499) demonstrates how much more ambitious these claims can become in the hands of scholars raised with access to the manuscript resources that Aurispa and his peers labored to bring to Florence. Christopher Celenza¹⁴ and Denis Robichaud in this volume have already discussed how Ficino blended Pythagoreanism with Neoplatonism to create his syncretic history. Ficino’s broad influence meant that the figure of Pythagoras – as distinct from the ideas attributed to him – became a linchpin in the humanist case for a continuity stretching back to the earliest days of revealed and philosophical truth. Ficino’s depiction of Pythagoras drew largely on Porphyry’s life, and passages in Church Fathers suggesting that Pythagoras had been the first thinker to discuss – or “discover” – the immortality of the soul.¹⁵ By tying Pythagoras to Moses and crediting him with this essential doctrine – the antidote to more frightening ancients like Epicurus and Lucretius, whose attacks on the afterlife felt like threats to theism itself¹⁶ – Ficino’s genealogy makes Pythagoras and Plato the two primary proofs that ancient philosophers were part of the process of divine revelation. In such a system, ancient theologians are cornerstones, rather than foes, of Christianity. And if Latin and Greek classics are now essential Christian reading, then a good humanist tutor is now essential for the education of a Christian prince.

Francesco Filelfo (1398–1481), a contemporary of Aurispa and the young Ficino, also voyaged east in search of manuscripts and Greek instruction. His use of Pythagoras in his treatise *De morali disciplina* and his *Epistula de opinionibus philosophorum* have been admirably treated by Christine Joost-Gaugier.¹⁷ In the

10 This note accompanies Aurispa’s line, “Ille vero esse pius & religiosus qui divinarum rerum artem habet & eius perfectionem tanquam honorem optimum causae bonorum omnium,” which comes just after a discussion of piety to Apollo. Hierocles 1474, Firenze, Biblioteca Nazionale Centrale, Mag. E.6.34. f. b1^v.

11 Transcribed directly from the text, f. b4^r.

12 Ibid. f. b5^r.

13 “Divinorum vero bonorum dux prudentia recte animo hominis collocata suffragatur sibi, ut [de] omnibus bene consulat & mortem quidem fortiter, perditionem quoque pecuniarum mansuete & aequo animo ferat,” ibid. f. c8^v.

14 Celenza 1999.

15 Joost-Gaugier 2009, 16.

16 Hankins 2007.

17 Joost-Gaugier 2009, 22–23; the text of the letter appears in Hankins 1990, II, 515–523.

letter, he provides a brief but comprehensive survey of philosophers before Plato. Filelfo's description of Pythagoras is almost a formal *vita*. It describes, in a few lines, Pythagoras' travels to Egypt, his role in founding the mysteries and sacred traditions there, then a pilgrimage-like journey to Chaldaea where he encountered Zoroaster.¹⁸ Filelfo includes the (often-omitted) detail that Pythagoras was thought to have been an incarnation of Apollo. In writing the letter, Filelfo seems to have worked from Diogenes Laertius as well as fragments of a Latinized life of Timaeus of Locri (now lost). Focusing on philosophy's final flowering in Plato, Filelfo divides Plato's debt to his teachers into three parts. From Socrates, he says, Plato learned of civic matters, from Heraclitus of things subject to the senses, and from Pythagoras, the leader and founder of Italic philosophy, matters of reason and the divine.¹⁹ By this division, Filelfo again uses Pythagoras to defuse threats of unorthodoxy from other ancients. Surviving sources make clear that Heraclitus and Socrates disputed or at least doubted the standard afterlife, but if Pythagoras is the dominant source of Plato's theology, while the others influenced only his social and epistemological opinions, then Filelfo has established what humanists dearly wanted to be true: an antiquity unified by a comfortable, monotheistic, proto-Christian theology. And Pythagoras is the "princeps et auctor" of ancient thought, prior in time and importance to Heraclitus and Socrates, firmly establishing that theology is the heart of classical philosophy.

Another figure indebted to Ficino, and especially to Giovanni Pico della Mirandola's ideas about Pythagoras' Hebrew origins, is the renowned German Hebraist Johannes Reuchlin (1455–1522).²⁰ Christine Joost-Gaugier's treatment of his work on Pythagoras shows how he struggled to defend the value of Hebrew studies, and literally to defend Hebrew books from destruction under Maximilian I.²¹ Reuchlin's 1517 *De Arte Cabalistica* begins with a hyperbolic but touching celebration of Florentine scholarship dedicated to Pope Leo X. Leo's pontificate, says Reuchlin, guarantees the fruition of the blossoming of "Greek, Latin, Hebrew, Arabic, Chaldaic, and Chaldaean" enabled by Leo's father Lorenzo de Medici, and his circle, of whom Reuchlin names "Demetrius Chalcondyles, Marsilio Ficino, Giorgio Vespucci, Cristoforo Landino, Valla, Angelo Poliziano, Giovanni Pico della Mirandola, and others."²² Reuchlin is distinct in being the only one of these framers of Pythagoras who mentions his monk-like virtues only in passing instead of making it a focus, suggesting that there may be more than just flattery to

18 Hankins 1990, II, 521–522.

19 "Legimus enim Platonem in universa philosophia tris quosdam secutum esse philosophos: in rebus civilibus Socraten, at in iis quae sensibus subiiciuntur, Heraclitum, in rebus vero illis quae ad intelligentiam et res divinas spectant, Pythagoran hunc Samium, qui philosophiae Italicae et princeps fuit et auctor." Hankins 1990, II, 522.

20 See Schmidt-Biggemann's chapter on Reuchlin in this volume.

21 Joost-Gaugier 2009, esp. 42–45.

22 Reuchlin 1983, 37.

his opening panegyric presenting the circles of scholarship around Lorenzo and Leo as the perfect recreations of ancient Pythagorean religion.

Reuchlin credits Pythagoras with the foundation of Italian philosophy,²³ and promises that the treatise will “bring out the reborn Pythagoras” as Ficino did for Plato and Jacques Lefèvre d’Etaples for Aristotle.²⁴ Agreeing with Ficino and Pico that Pythagoras had had unique access to Kabbalah inherited from Moses, Reuchlin sees no contradiction in his Pythagorean treatise in giving Pythagoras less than a twentieth as much discussion as Kabbalics (*Cabalici*), a term he says was introduced to Latin by Pico, whom he met during the exile in France.²⁵ What little he says about Pythagoras’ life focuses on his travels, and the breadth of his studies, mentioning Polyhistor, Antiphon, and many sources bordering on the legendary:

Then our Pythagoras, greatest of all, commenced his first pursuit of knowledge along with a certain foreigner named Zora, and thereafter outside Greece, where at that time in Egypt people then known as prophets practised philosophy with him as did the Chaldees of Assyria, the Druids in Gaul, the Shamans of Bactria, a number of Celts, the Magi in Persia, the Gymnosophists in India; then he studied with Anacharsis of Scythia, and with Zamolxis, who had been Pythagoras’ slave in Thrace... Lastly he also studied philosophy with the Jews in India called Brahmins... Pythagoras cannot rightly be said to have learned anything from the Greeks and Romans in either theology or the humanities... As a result... the first of all philosophers was not a Greek but a barbarian.²⁶

Unlike Pico and our other Pythagorean biographers, Reuchlin argued for the inferiority of Greek thinkers who did not share Pythagoras’ access to Hebrew sources. He calls Socrates and Plato “the first Pythagoreans of all,”²⁷ and presents an extremely Platonic (or rather Neoplatonic) Pythagoreanism with dualism, forms, and hypostatic layers. He dismisses the idea that Pythagoras held heterodox positions such as belief in reincarnation, saying that, since he was unique in his day in understanding the immortality of the soul, other more ignorant au-

23 Ibid., 37.

24 Ibid., 39.

25 Ibid., 89.

26 “Quando idem omnium maximus noster Pythagoras simul cum barbaro quodam nominis Zora scientiarum prima studia iniit, adeoque id extra Graeciam, quo tempore apud aegyptios secum philosophati sunt, qui tum dicebantur prophetae, & Assyriorum Chaldaei & Galorum Druidae, & ex Bactris Samanaei, & Celtarum non pauci, & apud Persas Magi, & apud Indos Gymnosophistae, & ille Anacharsis apud Scythas, & in Thracia Zamolxis ante ipsius Pythagorae servus... & apud Indos denique Iudaei quos apellarunt Brachmanas... non est certe usque repertus Pythagoras quicquam rerum aut divinarum aut humanarum vel a graecis didicisse vel a Romanis... ut barbarum & non graecum fuisse praedicarent hunc omnium philosophorum primum.” Ibid., 129.

27 Ibid., 151.

thors garbled his ideas when they attempted to write them down, or that the discussions of rebirth referred to Pythagorean belief in the possibility of miraculous resurrection, and he credits several supposed Pythagoreans – such as Apollonius of Tyana – with actually raising the dead.²⁸ The saint-like and incontrovertibly monotheistic faces of the Renaissance Pythagoras are consistent here, even if monastic virtue is, for once, less important than the promise of transcendent and magically efficacious theological truth.

The long life of this humanist need to argue for Pythagoras' monk-like and proto-Christian status, and the diffuse impact of Ficino's genealogy of sages, are both visible in the dedication that opens the 1598 *editio princeps* of Iamblichus' life of Pythagoras. Produced in Holland by the Dutch classics professor Johannes Arcerius Theodoretus (1538–1604), this text shows how the apologetic and Christianizing program crystallized over a century and a half of humanist discourse, explosive multiplication of texts, and Reformation and Counterreformation anxiety over heterodoxies new and old. In the dedication, Arcerius enthusiastically repeats Ficino's genealogical model, citing Ambrose as proof that Pythagoras, and through him Plato, were students of Moses, thus that the "Schola Socratica" should be called a Schola "Mosaica," founded by God, which, even "without the help of God and Scripture" taught about virtue and vice, the just life, and the ideal administration of states.²⁹ In this last claim, Arcerius agrees with Aurispa by putting Pythagoras in the camp supporting the active life. To extend this genealogy forward, Arcerius claims that Clement of Alexandria and other Church Fathers embraced Pythagoras as part of the Christian tradition. He also rebuts those who claim that Pythagoras' ideas are not wholesome (*sani*) by contrasting him with other ancients who had been challenged from time to time but whose works remained familiar staples of education, especially in universities:

Indeed if Aristotle, the most deserving of philosophers, had his fantasy – nay we may say delusion – about the eternity of the world, and did not seem uncertain about it; and if Pliny, the other most industrious investigator of nature, also a supremely admirable author... was unable to restrain himself from believing the same, to such an extent that he intermingled impieties everywhere – about God I say! – which he himself conceived, debating, straying from the tenet that God is omnipotent, doubting that Hell exists, openly stating that souls are not immortal, and other unmistakable opinions of this type, yet he is not rejected for this, and moreover authors who have illustrated his work with commentaries, and as Porphyry, Ploti-

²⁸ Ibid., 178–182.

²⁹ "Quippe qui in Schola Socratica, peneque ut mox dicemus, Mosaica, belle institute, de Deo, quatenus quidem naturae melioris ductu, sine Deo & Scripturae adiutorio potuerunt, de virtutibus & vitiis german[ae] disseruerunt, exempla itidem salutaria reliquerunt, quibus in communi vitae usu juxta, ac rei pub. administratione apprīm[e] conducibilibus uti queamus." Iamblichus, 1598, *De Vita Pythagorae, & Protrepicae Orationes ad Philosophiam*, [Heidelberg], f. *3^r.

nus, and others labelled as enemies of Christianity are not rejected, but rather we take the greatest value and delight in them, constantly reread them, and practically worship them, then what! Can it be that we, in this persuasion, reject Pythagoras, who understood the truth about God, of which Clement of Alexandria is the richest witness? And also Plato, who splendidly understood and handed down so much about God, the immortality of the soul, and the punishments of the underworld...³⁰

Arcerius then stresses the respect the Church Fathers showed to figures including Plotinus, Porphyry, Themistius, Simplicius, Philoponus, Ammonius, Hermias, and Proclus.³¹ For Arcerius, working two centuries into the humanist process of disseminating ancient thought, when Erasmus and Rudolph Agricola have joined the list of venerable scholars invoked in the opening and notes,³² the battles over Aristotle and Pliny have now been waged and won. These once-forbidden authors remain mainstays of scholastic as well as humanist education, so Pythagoras “called the Attic Moses” (*Mosen atticum vocitarunt*) is saintly in contrast.

Even scholars who did not, like Arcerius, accept Ficino’s Mosaic genealogy still wanted to argue for a continuity from famous ancients like Pythagoras to themselves. That required evidence, both of continuity of ideas, and especially of continuity of morals. The personal virtue of an author was a great part of a book’s utility when one primary goal of humanist study was, as Petrarch had argued, to spur the reader to virtue, and to educate a new generation of leaders as virtuous as Cicero and Seneca, who would in turn heal the treacherous and faction-ridden Renaissance present. And if Good and Virtue and Truth and God were all One – as was established by Thomas Aquinas and, according to Renaissance interpreters, Plato too – then any sage who had access to Truth must have corresponding access to Good and Virtue, and thus anyone whose philosophy had enough Truth to be worth reading must be a virtuous person, and largely in agreement with Christianity.

30 “Etenim si Aristoteles, Philosophorum merito maximus, qui de mundi aeternitate sua somnia, ne dicam deliria habuit, nec sensit de eo quid debuit: nec item Plinius diligentissimus alioqui naturae indagator, maximeque admirabilis scriptor, qui praeceptorem καὶ προηγούμενον Aristotelem secutus se continere non potuit, quin admirando sui operis, imo preclarissimo Mundi thesauro de naturali historia initio, idem sentiret, adeoque passim intermiscuerit palam impia, de Deo aio, quam ipse conceperat, ambigens, in dogmate de Dei omnipotentia hallucinans, inferos esse dubitans, animos non esse immortales, atque id genus alia manifesto statuens, non propterea reprobantur, quinimo scriptores, qui eos suis commentariis illustrarunt, ut Porphyrium, Plotinum, ac caeteros Christiani nominis hostes non aspernamur: sed potius in summo pretio & deliciis habemus, lectitamus, & tantum non adoramus, quid? an Pythagoram, quem recte de Deo sensisse, testis est locupletissimus Clemens ille Alexandrinus, cum alias, tum in προτρεπτικῶν rejiciemus? an Platonem, qui tam de Deo, quam de immortalitate animorum, e poenis inferorum, & caetera praeclare & sensit & tradidit...” *ibid.* f. *2^v–*3^r.

31 *Ibid.* f. *4^v.

32 *Ibid.* f. **1^v.

Thus, in a way which may seem counterintuitive or even fallacious from a modern perspective, in Renaissance eyes a philosopher's writings, especially their moral content, were deeply important sources about the philosopher's life, as important if not more important than information about places, deeds, or dates. Good philosophy was proof of an upright (quasi-Christian) life. Even the quality of an author's writing could be proof of good moral character, since God was the source of Beauty as well as Truth. Cicero had argued that only a virtuous orator could be persuasive,³³ and Plato said that beauty was a reflection of Truth and the Good. Thus, in the dedicatory introduction to his 1559 Basel edition of the *Golden Verses* and poems of Phocylides, German philologist Michael Neander (1525–1595) could write: "Indeed, as the poems are, so are the authors, Pythagoras and Phocylides: they contain truly golden sayings, that is holy, pure, and complete, but concise, smooth, and brief, the sort that promote the piety of wisdom, and the upright governance of studies, morals, life, and all things."³⁴

Neander's 1559 dedication contains a lengthy and heartfelt general defence of pagan sages and their place in the divinely ordained plan flowing forward from Solomon and the Hebraic tradition. He lists numerous Church Fathers from Maximianus of Ravenna to Basil the Great who embraced pagan authorities, especially little books of concise or aphoristic wisdom like the *Golden Verses*.³⁵ Thales, Democritus, Epictetus, Theophrastus, Xenocrates, Hesiod, Aesop, Homer, Xenophon, Clement of Alexandria, Plutarch, Anacharsis, even the Delphic Oracle rush by in a crush of names linked by the production and transmission of little capsules of virtue and piety, Pythagoras foremost among them. Toward the end of the letter, Neander devotes 500 words to Pythagoras' life,³⁶ another informal *vita* which draws directly upon (and even acknowledges its debt – a rare courtesy in the sixteenth century) the brief but detailed entry on Pythagoras printed in the widely influential encyclopedic 1506 *Commentarii Urbani* by Raffaele Maffei (1451–1522).³⁷ The complete texts and translations of Maffei's and Neander's lives are included below, and the differences are telling, particularly since there are strategic sections of Maffei which Neander chooses to omit, while other sections he repeats word for word.

33 See Kahn 1985, 29–35.

34 "Utrumque vero poema, utriusque auctoris, Pythagorae & Phocylidae, praecepta continent vere aurea: hoc est, sancta, pura & absoluta, sed succincta, rotunda & brevia: qualia sunt sapientum monita de pietate, de studiorum & morum ac vitae denique totius honesta gubernatione." Neander, 1559, 19 (f. c2^r).

35 "Eam docendi brevem & succinctam rationem a prophetis, & veteris primaeque ecclesiae doctoribus acceptam, patres deinde & theologi Graeci sequuti sunt." *ibid.* 5, (f. a3^r); similarly, "Apud ethnicos enim non pauciores huiusmodi libellos invenias, quibus brevibus dictis doctrinam de moribus proponant," 6 (f. a3^v).

36 *Ibid.* 17 (f. c1^r).

37 The edition used here is Maffei, 1552, *Commentariorum urbanorum XXXXIII libri*, Lyon; for another reading of it see Joost-Gaugier 2009, 40–41.

Maffei and Neander's texts are nearly identical in structure. Both begin with Pythagoras' parentage (son of a merchant (*negotiatore*) in Maffei and a ring-maker (*annulorum sculptoris*) in Neander), and focus on two stages of his life: his voyages of study and the foundation of his school. Maffei, in the original, specifies that Pythagoras' journey was undertaken with the blessing or influence (*gratia*) of the stars, a tour of Egypt, Babylon, Crete, and Sparta divinely ordained, like that of the Three Kings. Pythagoras' teaching is depicted by Maffei as primarily a campaign against luxury in favour of frugality and temperance. Women feature prominently in Maffei's account: Pythagoras urged matrons to chastity, and his example inspired many women to sacrifice their golden and ostentatious garments as offerings in the temple of Juno. This unusual interest in Pythagorean women, otherwise rarely mentioned,³⁸ certainly reflects Maffei's own interests, since he himself had been strongly tempted by the monastic life, and founded a house of Poor Clares in his native city of Volterra, in parallel to the school of philosophy and theology he hosted in his home. Maffei's description of the Pythagorean acolytes, "three hundred youths bound to him by sacred oath," could not sound more monastic. Maffei's is also the only account to dwell on the unhappy fate of the Pythagorean school: that a mob, stirred up by suspicions of conspiracy, attempted to burn the Pythagorean students alive, and sixty died in the conflagration. This focus on suspicion and persecution is powerful and clearly pointed, coming in an account written by a man who had himself witnessed and survived many similar persecutions and eruptions of violence. Writing soon after 1500, Maffei had recently experienced the French invasion of Italy in 1494, and the rampant bloodshed which had rocked the peninsula under the Borgia pope Alexander VI in 1492–1503. Earlier, in 1478, only the personal intervention of Lorenzo de Medici had saved Maffei from the retributive massacre that drenched Florence in blood after the Pazzi Conspiracy, a failed attempt to wipe out the Medici family, in whose aftermath the pro-Medici mob turned on Raffaele Maffei because his brother Antonio had been one of the primary assassins who actually held a knife to Lorenzo's throat.³⁹ Maffei had also seen the prosecutions of many fellow scholars: the renowned philologist Pomponio Leto (1428–1498), imprisoned and tortured in 1468 along with twenty of his students when his academy was accused of paganism and conspiracy against the pope; Maffei's personal acquaintance Giovanni Pico della Mirandola (1463–1494), condemned for heresy in 1487–1488 and saved, like Maffei, only by the intervention of Lorenzo de Medici⁴⁰; and

38 The only other major Renaissance discussion of Pythagorean women seems to be in the 1532 *Declamation on the Nobility and Preeminence of the Female Sex* by Cornelius Agrippa (1487–1535); cf. Joost-Gaugier 2009, 45. Even Plato's Pythagorean mother Perictione, known in the Renaissance through references in Iamblichus (*VP* 267) and works attributed to her preserved by Stobaeus (*Florilegium* 1.62–63, 79.50, 85.19), passed unmentioned by Plato's many enthusiastic Renaissance students and biographers, much as she usually does today; Pomeroy 2013, 43.

39 Hibbert, 2012, 136–138, 141.

40 Pico was also an associate of the Johannes Reuchlin, discussed above.

the Dominican firebrand intellectual and political leader Savonarola (1452–1498), burnt at the stake with two of his followers in 1498. In such times it is both consolation and optimism for Maffei to affirm that, despite torch-bearing mobs and Pythagoras' death in exile, the philosopher was revered by the people, and the influence of his thought was everlasting. With an encyclopaedist's thoroughness, Maffei finishes the entry by dutifully mentioning Pythagoras' vegetarianism and his belief in reincarnation, details omitted by the humanists who were editing volumes focused on Pythagorean texts, and who were therefore more nervous about being accused of promoting an ancient with such suspect opinions.

In the imitation by the German Neander in 1559, the stakes and situation are quite different, even if the facts and sources are the same. Much of his account of Pythagoras' philosophical pilgrimage follows Maffei verbatim, but Neander adds the claim that Pythagoras' voyage founded a tradition of philosophical pilgrimage, imitated by Plato, Euripides, Solon, Apollonius of Tyana, Cicero, Jerome, and Galen. Women are absent from his account, but the school and its goals are still extremely monastic: Pythagoras "exhorted that land's youths and citizens with the best teachings to the pursuit of honesty, uprightness, and frugality, and other virtues." Dropping Maffei's description of the persecution, Neander substitutes an extended comment on the rules which Pythagoras imposed on his students, specifying that Pythagoras himself lived by the same strictures. Neander's use of *praescripta* as well as *legibus* implies a written corpus of laws, phrases no one in the Renaissance could read without thinking of the Rule, or various Rules, which were the defining heart of Christian monastic orders. Neander lists authors who supposedly describe this Pythagorean Rule: Diogenes Laertius, the *Suda*, Philostratus, Porphyry, Simplicius, Cicero, Plutarch, "among Greek Fathers Clement of Alexandria and Philo Judaeus," and, as a finale, Erasmus and Lilius Tifernas. Neander has created a Protestant genealogy of sages, skipping the now-tainted Catholic Middle Ages.

In the mid-sixteenth century, one of the great challenges faced by moderate Protestantism was the desire to retain popular Catholic practices whose traditional justifications had been stripped away. Pilgrimage and monastic life retained a powerful appeal, but their place in religious life was harder to justify when saints like Francis were being erased from the canon. Imitating Luther, many Protestants looked earlier, to Augustine and early Fathers, and here Neander nominates Pythagoras as an even earlier father, and precedent. So, as across Protestant Europe non-icons were decorating altars with allegories instead of saints, and non-relics like books were becoming centres of processions and ceremonies, so the non-saint Pythagoras served, for Neander, as an alternative non-Catholic origin myth for pilgrimage and monastic life. In his finale, Neander turns to the novel and controversial suggestion that Pythagoras might not be the author of the *Golden Verses*. He says the question is uncertain, but suggests that, if Pythagoras is not the author, then *Golden Verses* were so pious that the ancients, looking about for their possible author, judged that Pythagoras was the only sage whose

“very holy life” could have produced such pure and sparkling aphorisms. Even if the works are spurious, their attribution to Pythagoras only proves that his real writings were even better.

A sincere and deep delight shines through in all these treatments of Pythagoras. Aurispa, Filelfo, Ficino, Maffei, Reuchlin, Neander, and Arcerius present a monastic, proto-Christian Pythagoras, not only because it advanced their classifying or reforming agendas, but because they shared the same fascinated admiration for Pythagoras that they described in his contemporaries. As they cobbled together what they could from garbled manuscripts, fragmentary references, and doubtful attributions, the very absence of consensus among ancient accounts of Pythagoras made it easier for them to resolve the contradictions using the ideal they wanted to find: they wanted a founding mystic like Dominic or Francis, who could make philosophy and theology one, and whose moral perfection could permanently settle all fears about potential contradictions between the ancient theology humanists loved and the Christian faith that they also sincerely believed in. Their Pythagoras feels monastic – rather he *is* monastic in their eyes – because his values and goals were the same as monasticism’s, whether he called the divinity God, the Monad, or Apollo. If official histories of the Church had space in them for the founding legend of the Carmelite order – that it descended from hermetic communities founded by the prophets of ancient Israel long before the Incarnation and Crucifixion – then there was space for a Pythagorean monastic order to be part of the same sacred tradition. Augustine followed Plato, who followed Pythagoras, who followed Moses as comfortably as Isaac followed Abraham, all steps on a divinely-planned road to the good life.

While they are deeply monastic and deeply sincere, these readings of Pythagoras are all also distinctly humanist in a particular way which is clearest in another treatment, the last in our set, the brief 1503 *Symbola Pythagorica* by Filippo Beroaldo the Elder (1453–1505).⁴¹ Here Beroaldo explicates the hidden meanings in Pythagorean sayings one by one, beginning with a brief treatment of Pythagoras’ life, again focusing on how Pythagoras taught virtues like plain dress, abstaining from rich meals, and restraining the tongue. Beroaldo’s explication of Pythagorean doctrine – more his own original creation than Pythagoras’ – includes a deeply touching treatment of the powers of grief and friendship, mourning the loss of his intellectual partner of thirty years Minus Roscius. Another highlight of the treatise is a cunning juxtaposition in which Beroaldo first elaborates the dangers of being too candid around rulers whose wrath must always be feared, then embarks upon a lengthy praise of liberty and a graphic portrait of the inhumane degradations of servitude, a pair which feels like a not-very-veiled attack on monarchy until it culminates in the claim that, in this world of cares and hierarchies, even kings are slaves to the passions, and the only true liberty lies in wisdom.

41 An English translation is included as Appendix B of Joost-Gaugier 2009, 248–265.

The finale of Beroaldo's little commentary is our only Renaissance imitation of the lengthy section of Diogenes Laertius which lists many suggestions of why Pythagoras refused to eat beans. Beroaldo first plays with the idea that Pythagoras used beans as slang for testicles, so his rejection of beans was a recommendation of chastity, which here finally joins poverty, silence, and obedience to complete the set of characteristically monastic virtues. But the even deeper meaning of the beans, Beroaldo tells us, is a reference to the black and white beans used for voting in ancient Greece. Here he reviews debates over the active and passive life (as Aurispa did in our very first humanist treatment of Pythagoras), summarizing both the Stoic argument that Providence gives us a divine duty to participate in society and state, and the Epicurean argument that politics and ambition are the enemies of tranquillity and the philosophical life. Does Pythagoras' injunction against beans mean he sides with Epicurus against the active life? Beroaldo's answer is a beautifully syncretic conclusion in which everyone – Pythagorean, Stoic, and Epicurean – turns out to be right:

There are two kinds of commonwealth. One is the greater, higher, communal order of being, within which both gods and men are contained. The other is the lesser, particular polity to which the condition of birth assigns us... Some give their attention to both the greater and the lesser common weal. They devote themselves to higher, universal wisdom, yet also carry on practical affairs of state or business. Others attend to the lesser order, as do senators, government officials, and civil servants. Still others serve primarily the greater order, as do philosophers and the most zealous of students... In this higher order we can be of service to a wider community more freely, extensively, and favourably than in the lesser, practical order of local business. An educated person seeks to help the most universal community, having regard for, not only those living, but also his descendants and posterity.⁴²

The synthesis is complete. Pythagoras prescribes abstaining from earthly politics in order to be of greater service to a higher politics beyond. The passive life *is* the active life, a greater active life of providential service, not to mundane earthly politics, but to the universal commonwealth of souls. This greater commonwealth perceived by the wise and pious – identical with Plato's eternal realm of souls and with Augustine's City of God – is what received the heartfelt service of Francis and Dominic, Seneca and Epicurus, Beroaldo and his beloved lost Roscius. If these many spiritual public servants seem to disagree – Franciscan with Dominican, Stoic with Epicurean – it is only because such truths are difficult to articulate, hidden in esoteric depths which only rare golden sages like Pythagoras can depict in simple yet infinitely complex phrases like "abstain from beans."

42 Ibid., 264.

This is humanism: an attempt to heal a fractured and war-torn political world by dedicating one's self to scholarship and philosophical contemplation, a simultaneously active and passive life which is not contradictory, not paradoxical, but consistent with what Renaissance scholars saw as the shared goal of all wise people. A humanist was the same ancient creature as Pythagoras and Francis, living the active life of a higher commonwealth. If the humanist was also a new creature, it was because the fractured world of the fifteenth and sixteenth centuries required a new and special kind of service to the higher active life: reconstructing the lost past. Love of antiquity was love of wisdom, and while humanists studied the past to heal the present, they healed the present to serve the future, setting the stage for better eras just as Pythagoras had set the stage for Rome, and Christianity. In an age when only princely patrons could finance Aurispa's voyages to the East, Ficino's translations of Plato, or the universities where Neander and Arcerius taught and published, scholars could not realize their dream of a new antiquity without braving the snares and sorrows of political life. Humanists needed to believe there was no contradiction between political and philosophical goals, as much as they needed to believe there was no contradiction between pagan and Christian, and these lives of Pythagoras – the linchpin sage in proving the unity of ancient theology – was the perfect ground for them to prove it to readers, to patrons, and above all to themselves. These biographical sketches are the fruits of a deeply pious Renaissance, pious but open-minded, secularizing only in retrospect when we as moderns look back at this interest in a figure we label mathematician and scientist, but whom humanists just as validly labelled monk and priest. From their own perspective they were not secularizing as they pulled lost knowledge from the pre-Christian past, rather they were sanctifying, healing, exposing a sacredness that they believed had always been, like the Pythagorean monad, one.

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Richard Reitzenstein, Pythagoras and the *Life of Antony*

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In a book on forms and transfers of Pythagoras and the ascetic lifestyle that he was said to have promoted, a discussion of the influence of Pythagorean traditions on Athanasius' *Life of Antony* should not be absent, as this biography had an enormous influence in the West, probably even more than in Egypt itself.¹ The need for such a discussion is the more pressing, as this chapter in the Pythagorean tradition is missing from the recent studies of Pythagoras by Christoph Riedweg and Leonid Zhmud as well as from the new and rich history of Pythagoreanism edited by Carl Huffman.² I will take my start at the beginning of last century when the relationship between Neo-Pythagoreans and Athanasius' *Life of Antony* began to be discussed. I will look first at the origin of this discovery (§ 1), then discuss more recent developments (§ 2), and, finally, look again at the most important parallels adduced (§ 3).

1 Reitzenstein, Pythagoras and the Life of Antony

The end of the nineteenth and the beginning of the twentieth century witnessed a fascination for the origins of the Christian cult of the saints and, in a clear anti-Roman-Catholic approach, tried to reduce the origin of that cult to the Greco-Roman cult of the heroes. This approach, which we can see clearly in the works of Hermann Usener (1834–1905) and Ernst Lucius (1852–1902),³ was taken up in a different form after the deaths of these scholars by Richard Reitzenstein (1861–1931) and Karl Holl (1866–1926). In his *Hellenistische Wundererzählungen*, published in 1906,⁴ Reitzenstein had already given attention to the oldest hagiographic histories, in particular Athanasius' *Life of Antony*, but also, albeit still modestly, to the later Pythagoreans.⁵ In 1912 Holl published his important study, *Die schriftstellerische Form der Heiligenlegende*, in which he argued that Athanasius' *Life of Antony* was the prototype of the Greek lives of the saints, but also derived its model from

1 For this surprising observation, see Choat 2013.

2 Riedweg 2007²; Zhmud 2012; and Huffman 2014. These studies, together with Walter Burkert's seminal work (Burkert 1972), give all the available information about Pythagoras, but also note Dubois 2006.

3 Usener 1907; Lucius 1904. Cf. Consolino 1982.

4 Reitzenstein 1906; cf. Bremmer 2013. For Reitzenstein, see E. Fraenkel / H. Fraenkel / Pohlenz 1931, 160–168 (bibliography); Pohlenz 1931 (usually overlooked); Fauth 1989; Prümm 1985; Audring 2000 (on the young Reitzenstein); Marchand 2003 at 151–158.

5 Reitzenstein 44–45, 71 (Pythagoreans), 5–83 (Antonius).

pagan biographies, perhaps from a Pythagorean treatise such as Philostratus' *Life of Apollonius of Tyana*.⁶ The ground was thus prepared when Reitzenstein returned to the subject in 1914. The previous year he had begun a revision of his *Wundererzählungen* but, remarkably, his work resulted not in the scheduled new edition of the book on Hellenistic miracle stories but in three new publications. First, he published a small but still important booklet on the martyrdom of Cyprian, a figure that must have drawn his attention in connection with the problem of the first Christian biography.⁷ Secondly, he issued a similar booklet on Athanasius' *Life of Antony*. And, thirdly, he published a larger book on the history of the Christian monks and the terms "Gnostics" and "pneumatics,"⁸ which had already drawn his attention in his earlier book on the Hellenistic mystery religions.⁹ Although Reitzenstein also points to Pythagorean parallels and differences in his book on the early Christian monks (13, 15, 21 n. 3 diff., 94, 95, 105, 212: § 2), his treatise on the *Life of Antony* is the one publication that still plays an important role in the discussion of possible Pythagorean sources of Athanasius' biography. So what did he argue?

Reitzenstein did not pay much attention to the problem of the sources or to that of the author of the *Life*. Although the authenticity of the work had been debated since the Reformation, he considered the matter settled in favour of Athanasius, as most scholars tend to do.¹⁰ Athanasius published his "biography" shortly after Antony's death in AD 356. At the moment of writing, he was once again exiled, and the writing of the biography may have comforted him in the Egyptian desert. The most recent discussion of the issue, by Tim Barnes, notices a discrepancy in vocabulary between the *Life* and the rest of Athanasius' work, and Barnes persuasively concludes that Athanasius made use of an earlier work, although he is unable to determine exactly what parts of the *Life* were owed to whom.¹¹ For convenience's sake, however, we will refer in the following to the author of the *Life* as Athanasius.

Clearly inspired by Karl Holl, Reitzenstein first analysed the structure of the *Life* before pointing to a striking parallel between a passage in the *Life of Antony* (14) and Porphyry's *Life of Pythagoras* (34, 35) to which I will return in the last section of this contribution (§ 3).¹² However, in the best tradition of German *Quellenforschung*, Reitzenstein argued that Porphyry derived his picture from Anto-

6 Holl 2, 249–269. For Holl, see von Harnack / Lietzmann 1926; Karpp 1966, with further bibliography.

7 Reitzenstein 1913.

8 Reitzenstein 1914 and 1916. Note the interesting letter of Theodor Nöldeke (1836–1930) in which he thanks Reitzenstein for his *Athanasius*: Maier 2013, 331–332.

9 Reitzenstein 1927³.

10 See the brief survey by G. J. M. Bartelink 2004², 27–35.

11 Barnes 2010, 160–170. For advocacy of Serapion, bishop of Thmuis, as this author, see Tetz 1982, 1–30, reprinted in his *Athanasiana* 1995, 155–184; Barnes 2010, 163. For a balanced survey, see Rousseau 2001.

12 For Porphyry's *Life*, see now Macris 2014.

nus Diogenes' *The Incredible Wonders beyond Thule*, a novel which he had already commented upon in his book on the Hellenistic miracle stories,¹³ and which we know only from an epitome in Photius and some papyri.¹⁴ According to Reitzenstein, Athanasius did not directly use this novel but rather its source, a work by Nicomachus of Gerasa (ca. AD 50–150), who almost certainly wrote a biography of Pythagoras and was well acquainted with the Pythagorean tradition.¹⁵ At this point the reader may become a bit dazed, but it must be granted to Reitzenstein that Porphyry quotes from both Antonius Diogenes (10–11, 32–33) and Nicomachus (20, 59, cf. *FGrH* 1063 F 1–3), and the latter is also quoted by Iamblichus in his *On the Pythagorean Life* (henceforth *VP*: 252–253). In fact, Reitzenstein even noted that the characterization by Athanasius (14.7) of the desert as a city of monks, which has given the title *The Desert a City* to the classic work of Derwas Chitty (1901–1971) on the development of eastern monasticism,¹⁶ must eventually go back to Nicomachus, as Iamblichus (*VP* 30) notes that the Pythagoreans “built a city in that which is called by all ‘Magna Graecia’.”¹⁷ For clarity’s sake I have rendered the verb *πολιζω* as “building a city,” but in their translation of Iamblichus’ work John Dillon and Jack Hershbell translate “built a community.”¹⁸ And indeed, Claudia Rapp has shown that over time *polis* becomes a metaphor for “community,” rather than a physical space. She concentrates on the Christian tradition, but Iamblichus’ expression shows that the same development was already taking place earlier.¹⁹

Subsequently, Reitzenstein argued that we must see Apollonius of Tyana behind these two Pythagoreanizing authors, Porphyry and Iamblichus.²⁰ Here he follows the source analysis of Erwin Rohde, which has long been accepted but has recently almost certainly been refuted. Instead of the famous Pythagoreanizing philosopher whose life is described by Philostratus, the Apollonius mentioned by Porphyry and Iamblichus is more probably the Hellenistic philosopher and rhetor-

13 Reitzenstein 1906, 17–18.

14 Reitzenstein 1914, 15–16; cf. Fusillo 1990 (text and Italian translation). Papyri: Stephens / Winkler 1995, 148–172, who also supply an English translation of Photius and other literary fragments (121–129); *PSI* 10.1177v^o (Oxyrhynchus? Second / third century); *P.Oxy.* 42.3012 (second / third century); *P.Oxy.* 70.4760 (second / third century: where Paapis appears) and 4761 (most likely from Antonius), and possibly *Dublin, Trinity College Pap.* C 3 v (second century); *P.Palau Rib. Lit.* 26 (second / third century); *P.Oxy.* 70.4761 (third century) and *Geneva, Bibliothèque P.Gr.* 187 (second century); almost all are rolls and almost all restricted to the period of the second and third centuries; the first is interesting in particular as it concerns a re-used roll. For a new study that takes into account the recent papyri, see Bernsdorff 2009.

15 Reitzenstein 1914, 15–17, cf. Burkert 1972, 98; Centrone / Freudenthal 2005, 688–690.

16 Chitty 1966.

17 Athanasius, *VA* 14.7: ἡ ἔρημος ἐπολίσθη μοναχῶν ~ Iamblichus, *VP* 30: πολίσαντες αὐτοὶ τὴν πρὸς πάντων ἐπικληθεῖσαν Μεγάλην Ἑλλάδα.

18 Dillon / Hershbell 1991, 55.

19 Rapp 2011 and 2014.

20 Reitzenstein 1914, 17, cf. Rohde 1901, 2, 102–172, but note the objections of Burkert 1972, 100 n. 11.

rician Apollonios Molon.²¹ Having analysed the structure of the *Life*, Reitzenstein concluded that a biography of Pythagoras, which he unfortunately does not explicitly identify but which seems to be the one by Nicomachus, was the model for many chapters of Athanasius' *Life*. Moreover, the way that Antony captured one of the wild animals that damaged his garden (VA 50.8–9) reminded Reitzenstein of two stories told about Pythagoras by Iamblichus (VP 60), viz. that Pythagoras domesticated a Daunian bear by feeding it barley cakes and nuts and exacted an oath from it never again to attack a living being, and that he also persuaded a bull in Tarentum that grazed on green beans to abstain from them in the future by whispering in the bull's ear (61). Strangely enough, though, Reitzenstein did not note the fact that Porphyry (*Life* 23–24) has exactly the same material in the same order. As Iamblichus did not use Porphyry directly, we may safely assume that both went back to the work of Nicomachus already mentioned.²²

Now Porphyry's biography was known in the Alexandria of his time, as it was used by Cyril of Alexandria (ca. 376–444).²³ Yet, if Athanasius did not use it, as Reitzenstein argues, he must have derived this material, perhaps indirectly, from Nicomachus. In passing we also note that Porphyry, via Nicomachus, depended on the *Mythika* of Neanthes of Cyzicus; the latter's dating has now been moved earlier into the late fourth century BC and his book on Plato was still available to Philodemus, as a papyrus from Herculaneum has now shown – a recent insight with consequences for our evaluation of the later tradition that have still to be properly thought through.²⁴

What can we conclude so far? It seems to me that Reitzenstein did conclusively demonstrate his point that Athanasius used Porphyry's source for Antony's coming forth from the desert (§ 3), and the anecdote about Antony and wild animals (*Life* 50.8–9). Naturally, given the loss of so much literature, we cannot exclude that Athanasius used other Pythagorean authors as well. As we have seen, Reitzenstein notes the dependency of Porphyry on Antonius Diogenes' *Incredible Things beyond Thule*, but it seems less likely that Athanasius would have had knowledge of such a novel, as there are no indications in his work that this genre attracted him. Moreover, Antonius' novel lacked the tone that would be relevant for Athanasius in his search for models. On the other hand, given that Athanasius almost certainly used a written source for his biography, the author of his source might well have had different interests from Athanasius: we simply do not know.

According to Reitzenstein, Athanasius did not depend on Porphyry but on the source of Antonius Diogenes, which would probably be Nicomachus, but we cannot be certain, as the exact dates of Antonius and Nicomachus are unknown. Although both of them seem to have lived in the first half of the second century

21 Staab 2002, 229–237 and 2007, 195–217.

22 Rohde 1901, 2, 125–126; Weinreich 1973, 178 (1926³); Burkert 1972, 98 n. 5; Staab 2002, 224–228. For Iamblichus' interest in Nicomachus, see also Vinel 2014.

23 Cf. Grant 1964, 274; Malley 1978, 259 n. 67; Rubenson 2013, 87.

24 Burkert 2000; Schorn 2007, 128–138 and Schorn 2014a.

AD or even a bit before,²⁵ we are insufficiently informed to say anything with certainty about a possible mutual influence. Yet Reitzenstein wanted to go further and identify a much larger Pythagorean influence in the *Life of Antony*, although he did realize that this was “noch etwas kühner” than his earlier suggestions.²⁶ However, we get into a game of *obscurum per obscurius* when Reitzenstein claims Pythagorean influence without being able to offer convincing parallels between Athanasius and specific texts that have survived. There is also the *ars nesciendi*, which was not Reitzenstein’s strongest point. Still, there can be no doubt that he demonstrated that Athanasius (or his source) used, directly or indirectly, a biography of Pythagoras.

Pythagoras was not the only pagan figure whom Athanasius used as a model. Recently, it has been persuasively argued that Athanasius also made use of Lucian’s biography of the Cynic Demonax. In fact, Athanasius transferred the whole last chapter of the *Demonax* (67) into his own biography word for word, albeit divided over the prologue and the end of his *Life of Antony*. In these passages Athanasius refers to his own memory and personal acquaintance with Antonius and declares that he wants to represent the monk’s character. Athanasius probably also used the *Demonax* for some other passages about the birth, education, and death of Antony, but his reworking of his source or mixing of it with other pagan texts makes identification less certain.²⁷

2 Rubenson and Gemeinhardt

Let us now turn from Reitzenstein to two important recent studies that review once again the relationship between Pythagoras and Antony.²⁸ The first is by the Lund church historian Samuel Rubenson in an article that aims to reappraise the appropriation by Athanasius of pagan biographies.²⁹ Rubenson takes as his point of departure the fact that most students of the *Life* have limited themselves to the hunt for parallels, classical or biblical, but he also argues that one should first determine the purpose and aim of the text before discussing the *Life* as an example of a Christian appropriation of a classical biography. To that end he once again analyses the structure of the *Life*, arriving at a slightly different position from Reitzenstein and Bartelink. Rubenson notes that Antony is unaffected by the various events in his life and remains the same throughout his biography: he is depicted as secluded and detached from the world.³⁰

25 Antonius Diogenes: Bowersock 1994, 37–41; Bowie 2002, 58–60; Tilg 2010, 126–127. Nicomachus: Radicke 1999; Kahn 2001, 110–118; Staab 2002, 81–91; Centrone / Freudenthal 2005; O’Meara 2014 at 413.

26 Reitzenstein 1914, 17.

27 Overwien 2006, from whose abstract I take some formulations.

28 But see also Alexandre 1996; George 2002.

29 Rubenson 2006.

30 Ibid., 194–201.

Rubenson first argues that research subsequent to Reitzenstein has neglected his findings, emphasizes the specifically Christian background of the early monastic tradition and rejects Reitzenstein's attempts to find aretologies in the background of hagiography,³¹ and then proceeds with a new analysis of the points of contact between the *Life* and the lost biography of Pythagoras as discovered by Reitzenstein. However, as we do not have the lost biography, Rubenson uses the beginning of Iamblichus' biography until Pythagoras settles in a "so-called communal monastic life" (29: τὸ λεγόμενον κοινοβίους) to establish a series of concordances with Athanasius' *Life*.³² Although one can quibble with Rubenson about details, there clearly are a number of similarities between both works, such as that both lose their father at an early age, flee the world when they are about eighteen, search out teachers, are loved by all, leave their teachers, stay about twenty years away from their worlds, settle in a cave, have to flee their admirers and, finally, settle down in a (kind of) ascetic life. On the other hand, there are also differences. Whereas Pythagoras is well educated, Antony refuses to go to school. Pythagoras travels everywhere he can find wisdom, but Antony ridicules such wisdom travellers.

In other words, although there are similarities, Athanasius is not a slavish copier of his model, but keeps a firm eye on Christian virtues. Moreover, it is striking how much he stresses Antony's lack of education and criticism of the pagan classical education (*Life* 1, 20, 73). Given the emphasis put on Pythagoras' travels in Iamblichus and Porphyry, there can be little doubt that this part of Pythagoras' biography was indeed at the back of Athanasius' mind when he wrote Antony's critique. Yet it is not only the travels but also the doctrine of transmigration that Athanasius has Antony dispute in strong terms (*Life* 74).

Rubenson persuasively concludes that it does not make sense to relate the *Life* to a distinct genre of biography,³³ but that it is more fruitful to look for pagan parallels and, especially, their role in the overall argument of the *Life*. Moreover, we should also take into account the audience envisaged by Athanasius, although he unpersuasively, as we will see shortly, presumes that the intended audience did not have a high regard for Pythagoras nor – an even less persuasive assumption – knew the stories about him.³⁴ In the end, according to Rubenson, both Antony and Pythagoras had a pure mind and lived in perfect accord with their natures, but Antony claimed a different source of power. His was God, the Christian God, and that decisively distinguished him from the pagan Pythagoras. That is why

31 For aretologies, see now Bremmer 2013, 11–14; Jördens 2013.

32 Iamblichus, *VP* 29: καὶ ἐν πρώτῳ Κρότωνι ἐπισημοτάτῃ πόλει προτρεψάμενος πολλοὺς ἔσχε ζηλωτάς, ὥστε ἱστορεῖται ἑξακοσίους αὐτὸν ἀνθρώπους ἐσχηκέναι, οὐ μόνον ὑπ' αὐτοῦ κεκινημένους εἰς τὴν φιλοσοφίαν, ἥς μετεδίδου, ἀλλὰ καὶ τὸ λεγόμενον κοινοβίους, καθὼς προσέταξε, γενομένων.

33 On the now contested genre of ancient biography, see most recently Adams 2013.

34 Rubenson 2006, 194–201.

Antony did not need to travel: his wisdom did not derive from mortals but from the immortal God and Christ.³⁵

A rather different road is taken by the Göttingen church historian Peter Gemeinhardt, who has recently published both an article on the nature of the *Life of Antony*, and an interesting biography of Antony as the first monk.³⁶ Gemeinhardt takes as his point of departure Athanasius as bishop and focuses on the martyr narrative in the *Life*. He begins by arguing that the *Life* is the first Christian biography, preceded only by the memorial oration about the life of Cyprian: as we have seen, this assessment also motivated Reitzenstein's interest in this early Christian text.³⁷ At the same time, he correctly stresses that we are at the beginning of the "hagiographic discourse," when the genre was still evolving.³⁸ We need not engage here with his arguments about the influence of the martyrological literature on the *Life*, but will limit ourselves to his observations on the Pythagorean influence.

Gemeinhardt concedes that the theses of Reitzenstein and Rubenson have *prima facie* proved that the Pythagorean biographies did play a role in Athanasius' picture of the saint, although the former sees Athanasius rather as a follower, the latter as an anti-Pythagorean. Yet Gemeinhardt rejects both these positions. Firstly, he asks whether Athanasius really was educated enough to be at home in the genre of the philosophical *Lives*. Possible quotations may have been derived from *florilegia*, although Gemeinhardt admits that the intended readership constituted the "gebildete Oberschicht." In passing we must note that the existence of such a *florilegium* has not been demonstrated and would only shift the problem. For why would Athanasius read such a *florilegium* and not the real thing? This is unconvincing special pleading. But even if the similarities point to a real dependence, Gemeinhardt doubts whether the few demonstrable quotations show a significant influence from the philosophical biographies. In his recent biography of Antony he goes even further and now doubts the existence of quotations at all: the similarities should be explained from a familiarity with the traditional ideal of the philosopher as an ascetic rather than the direct use of a text.³⁹

Second, Gemeinhardt quotes with assent David Brakke's view that "Athanasius self-consciously appropriates the language of paganism for the depiction of the ideal Christian. Antony the martyr has not only defeated the pagan gods but also taken on the characteristics of their inspired sages."⁴⁰ There seems to me to be some contradiction between these two positions, but Gemeinhardt is probably

³⁵ Ibid., 207–208.

³⁶ Gemeinhardt 2012, 2013.

³⁷ Reitzenstein 1913; cf. Schmidt 2001; Mühlenberg 2008 (1990¹).

³⁸ Gemeinhardt 2012, 79–83; cf. the instructive and evolving studies of Van Uytenghe 1993; 2001; 2009 and 2011.

³⁹ Gemeinhardt 2012, 90 and 2013, 25. For the ideal of the philosopher as ascetic, see also Francis 1995 and Finn 2009.

⁴⁰ Brakke 2006, 33; cf. Gemeinhardt 2012, 90.

inspired by the reference to Antony as a martyr and concludes: “Der prototypische Christ wird mit Göttern und Dämonen fertig *und* inkorporiert die guten Seiten des paganen Weisen, weil er vor allem die Reinkarnation eines Typus des frühen Christentums ist: des Märtyrers.”⁴¹ In the rest of his article, then, Gemeinhardt proceeds by elaborating on the martyrological side of Antony as perceived by him.

In the end, neither Rubenson nor Gemeinhardt shows a real interest in the pagan sources of Athanasius or his *Vorlage*. That is why we will return to this problem in our final section.

3 Antony: Anti-Pythagorean and Martyr?

As one can see from the preceding survey, there is still a considerable lack of consensus regarding the influence of Pythagorean literature on the earliest Christian monk’s biography. So where should we go from here? Let me first start with the complicated question of the sources of the *Life of Antony* and of the surviving biographies of Pythagoras, those by Porphyry and Iamblichus, neither of which is discussed sufficiently by Rubenson or Gemeinhardt: it is significant that neither mentions the solid study of Gregor Staab about Pythagoras in Late Antiquity.⁴²

As we have already noted (§ 1), both Pythagorean biographies depended on Nicomachus and on older Pythagorean literature that cannot always be identified with certainty, especially in the case of Iamblichus.⁴³ Yet it seems that Athanasius only used Nicomachus, as he does not seem to know either Porphyry or Iamblichus. Now the biography by Porphyry can be divided into two parts: life and teaching,⁴⁴ and a similar structure can be seen, to some extent, in the *Life of Antony* too. Yet this similarity is not specific enough to conclude that Porphyry or his source was the main model after all. In the end one cannot but agree with what Averil Cameron writes about our *Life* and Eusebius’ *Life of Constantine*: “both are innovative, and the innovation in each case consists precisely in the creative adaptation and translation of existing patterns to new needs.”⁴⁵

However, there is a problem with one of the biographies that has not received sufficient attention in the two recent studies that we have discussed. As we saw (§ 2), in his work on Pythagoras, Iamblichus uses the term τὸ λεγόμενον **κοινοβίους** (c. 29). The term seems fairly recent (“so-called”), but is all the more interesting because he also states shortly thereafter that the Pythagorean refugees “led a lonely life in the desert” (35: **μονάζοντες** δ’ ἐν ταῖς ἐρημίαις), which sounds very much like a “monastic” life style. Could it be that Iamblichus is already employing Christian terminology, as has been suggested by Walter Bur-

41 Gemeinhardt 2012, 90.

42 Staab 2002.

43 For the sources of Porphyry, see now Macris 2014.

44 See the detailed analysis of the structure by Staab 2002, 118–121.

45 Cameron 2000, 86; see also Rapp 2010.

kert⁴⁶ In itself, this would not be wholly impossible as he lived well into the time of the Emperor Constantine (he died in 325), and the term “monk” (μοναχός) is already attested during his lifetime (first in AD 324).⁴⁷

Yet the origins of both terms, κοινόβιος and μονάζω, have not yet been wholly satisfactorily discussed until now. Regarding κοινόβιοι, the first aspect to observe is that outside Iamblichus the term occurs at most once elsewhere in pagan literature. When discussing the influence of a constellation of certain planets on brothers in his *Tetrabiblos* (*Apotelesmatica*), Ptolemy notes that this “will also make them (the brothers) *live together*, if they are in harmonious aspect with the Lot of Fortune” (3.5.4, tr. Robbins, Loeb).⁴⁸ Whereas Boer and Boll in their Teubner edition of 1940 preferred the reading κοινωνοὺς βίου of our best manuscript V for “live together,” Wolfgang Hübner in his new 1998 Teubner edition opts for κοινοβίους of the lesser manuscripts αβγ because this is also the reading of Hephaestion in his *Apotelesmatica* (2.6 Pingree), and the latter is known to have often copied Ptolemy almost literally. This combination seems a strong argument, even if some doubt remains as Hephaestion lived around AD 400 in Egypt and will certainly have known the monastic movement.

Not only, then, is this passage debated, but the place of κοινόβιος in Iamblichus is not without problems either, as the relevant passage has been deleted as a *Randbemerkung* by Deubner in his edition of the *De vita Pythagorica* (1937, second edition by U. Klein, 1975),⁴⁹ and likewise in the editions of Michael von Albrecht (1963) and that of John Dillon and Jack Hershbell (1991). Moreover, it is unlikely that the term actually had become “ein fester Terminus,” as Reitzenstein asserts.⁵⁰ The expression τὸ λεγόμενον **κοινοβίους** rather suggests that the author was struck by the unusualness of the term (‘so-called’ κοινοβίους). Indeed, also in the passage of Jerome, which Reitzenstein adduces as the sole Latin parallel for the adjective, the Church Father has to explain the term *coenobium* for his readers, as he clearly could not presuppose familiarity with it among his readers.⁵¹ Admittedly, like Reitzenstein, Ilberg, in the *apparatus criticus* of his 1910 CSEL edition, also notes regarding *coenobium* “adiectivum est.” Yet this is improbable as Jerome twice uses the term as a noun only shortly later in the same letter to Eustochium and again explains it to his readers.⁵² In other words, the term was still fairly unknown to his Latin readers. Given that the word otherwise exclusively occurs

46 Reitzenstein 1914, 39–43; Burkert 2006, 206 and 305–306. Note also Hippolytus, *Comment. in Danielelem*, 3.9.4: μονάζων ἐν ἐρημίαις (of King Nebuchadnezzar).

47 Judge 1977; Choat 2002.

48 Ptolemy, *Tetrabiblos* 3.5.4 Hübner: ἐὰν δὲ καὶ τῷ κλήρῳ τῆς τύχης, καὶ κοινωνοὺς βίου ~ Hephaestion 2.6 Pingree: ἐὰν δὲ καὶ τῷ κλήρῳ τῆς τύχης, καὶ **κοινοβίους**.

49 Cf. Deubner 1982, 524–525.

50 Reitzenstein 1914, 39.

51 Jerome, *Ep.* 22.34: *tria sunt in Aegypto genera monachorum: coenobium, quod illi ‘sauhes’ gentili lingua vocant, nos ‘in commune viventēs’ possumus appellare*, cf. Reitzenstein 1914, 39 n. 1.

52 Jerome, *Ep.* 22.35: *veniamus ad eosqui pluressunt, et incommune habitant, id est, quos vocari coenobium; 22.36: genus... quos anachoretas vocant, qui de coenobiis exeuntes...* Note also that none of the

in later Christian literature or late manuscripts of pagan authors,⁵³ the conclusion seems justified that we have here a gloss by a Christian reader that has been inserted into the text.

Now Willy Theiler (1899–1977), followed more recently by Constantinos Macris,⁵⁴ has contested Deubner's conclusion and suggested that Iamblichus may have derived the term from Timaeus of Tauromenium, who mentioned the Pythagorean expression κοινὰ τὰ τῶν φίλων (*FGrH* 566 F 13a) and wrote about a “communist” experiment of the inhabitants of Lipara in sharing their goods (*FGrH* 566 F 164). And indeed, it is certainly true that Timaeus gave attention to the Pythagoreans, but the passage of Diodorus Siculus (10.3.5) which Theiler quotes as Timaeian almost certainly does not derive from Timaeus.⁵⁵ Moreover, if the term had actually been coined by Timaeus, we would have expected it to have turned up more often in the literature about Pythagoras and his followers in later times, when the Pythagorean lifestyle received plenty of attention. In the end, it seems fairly safe to conclude that κοινόβιοι was not used by Iamblichus and thus does not refer to Christian monastic life.

But what about the term μονάζοντες, in the meaning of “living in solitude”? This relatively recent term, which is not attested before the Hellenistic era, is not absent from pagan literature, especially from the grammarians,⁵⁶ but hardly in the meaning of “living in solitude.” An interesting, albeit until now overlooked, passage is found in Cornutus (17) where it is said that those who are fond of learning (φιλομαθοῦντες) feel the need to be alone (μονάζειν) and want to withdraw (ἀναχωρεῖν) into the desert (ἐρημία).⁵⁷ Even earlier we find the term “monastery” in Philo's description of the Therapeutae,⁵⁸ as did not escape Reitzenstein. Philo notes that “in every house there is a sacred room, which is called sanctuary (σεμνεῖον) and monastery (μοναστήριον), where, quite alone, they perform the Mysteries of the holy life.”⁵⁹ It is clear, though, that the term μοναστήριον is not “offenbar früh technisch geworden,” as Reitzenstein suggests,⁶⁰ as Philo does his best to explain the term, which looks like a recent neologism, just like the term σεμνεῖον is not attested before him. And indeed, somewhat later he repeats him-

authoritative dictionaries of late Latin (Blaise, Du Cange etc.) mentions the adjectival usage of *coenobium*.

53 This is the case in Gellius 1.9.12.

54 Theiler 1938; Macris 2004, vol. 2, 254–257. I am most grateful to Constantinos Macris for showing me his work.

55 See now the detailed investigation by Schorn 2014b, 217–218.

56 See, for example, Philoxenos F 568.4, 13 Theodoridis; Herodian 2.913 Lentz.

57 Cornutus 14.9: ἐπειδὴ χρεῖαν ἔχουσι τοῦ μονάζειν καὶ συνεχῶς εἰς τὴν ἐρημίαν ἀναχωρεῖν οἱ φιλομαθοῦντες. I quote the text from Nesselrath *et al.* 2009.

58 The Therapeutae have been often discussed. See most recently Deutsch 2006 and Taylor/Hay 2010.

59 Philo, *De vita contemplativa* 25: ἐν ἐκάστη δὲ ἐστὶν οἴκημα ἱερόν, ὃ καλεῖται σεμνεῖον καὶ μοναστήριον, ἐν ᾧ μονούμενοι τὰ τοῦ σεμνοῦ βίου μυστήρια τελοῦνται. For the Mystery terminology in Philo, see Riedweg 1987.

60 Reitzenstein 1914, 41.

self and notes that “each of them, retiring into solitude by himself, philosophizes by himself in the so-called monasteries.”⁶¹ The recent coinage of the term does not preclude the possibility of Pythagorean influence, but that influence is more one of logic, practice, and theology than of terminology.⁶²

Looking back we can conclude that, unlike what has been suggested, there is no Christian influence of monastic terminology on Iamblichus. In fact, in his study of Pythagoras, Christoph Riedweg has noted an anti-Christian tendency in Iamblichus’ work, of which he observes that it “auch als paganer Gegenentwurf gegen das aufblühende Mönchtum und die christliche Lebensführung überhaupt gelesen werden kann.”⁶³ Admittedly, anti-Christian ideology need not preclude the transfer of particular terminology; but obviously the more such terminology becomes a centrepiece of Christianity, the more difficult will be its wider dissemination in audiences antipathetic to that thought-world. Riedweg’s observation, then, seems to be correct, although perhaps more relevant for the Christian lifestyle than for emerging monasticism. Consequently, we must be careful with the parallels between our *Life* and Iamblichus’ work on Pythagoras. On the other hand, there is no reason to deny that Athanasius and other Christian contemporaries could have noted similarities between their monks and the Pythagorean tradition and have reacted in their own ways to the perceived parallels.

Having looked at the seeming derivations of monastic terminology by Iamblichus, let us now turn to the case of real dependency of monastic hagiography on Pythagorean biography. Although Reitzenstein demonstrated this dependency, he did not take a more detailed look at the actual passage, and neither did Rubenson or Gemeinhardt. That is what we will do now. I start by juxtaposing the two passages:

Life of Pythagoras

Very often, when he intended to go down *into the inner shrine (adyton) of the gods* and remain there for some time, he used food that stopped hunger and thirst... In this way he preserved his body in an unchanging condition, as if with a plumb line; not at one time well, and at another time sick, nor at one time fat, and at another lean. His soul also showed the same character through his countenance. For he was neither put in a good humour by pleasure any more nor dejected by sorrow, neither was he manifestly subject to joy or grief, and no one saw him even either laughing or crying.⁶⁴

61 Philo, *De vita contemplativa* 30: ἕκαστοι μονούμενοι παρ’ ἑαυτοῖς ἐν τοῖς λεχθεῖσι μοναστηρίοις φιλοσοφοῦσι.

62 For logic and theology, see Centrone 2014 at 325–327.

63 Riedweg 2007, 48, also 16, 19, 166, but note that Staab 2002, 317–318 observes that Iamblichus’ exhortation “following the deity” (86, 137) is typically Christian; see also Dillon 2002; DePalma Digeser 2012.

64 Porph. *VP* 34: τὰ γε μὴν πλείστα ὁπότε θεῶν ἀδύτοις ἐγκαταδύσεσθαι μέλλοι καὶ ἐνταῦθα χρόνου τινὸς ἐνδιατρίψειν, ἀλμίους ἐχρήτο καὶ ἀδιψοῖς τροφαῖς ... ὅθεν αὐτῷ καὶ τὸ σῶμα

Life of Antony

And so for nearly twenty years he continued training himself in solitude, never going forth, and but seldom seen by any. After this, when many were eager and wishful to imitate his discipline, and when others of his acquaintances came and had cast down and wrenched off the door by force, Antony came forth, *as from an inner shrine, initiated in the Mysteries and filled with the spirit of God*. Then for the first time he was seen outside the barracks by those who came to see him. And they, when they saw him, were astonished at the sight that his body had kept the same condition: it was neither fat, like a man without exercise, nor emaciated from his fastings and battle with the demons, but he was just the same man as they had known him before his withdrawal. Again, the disposition of his soul was pure, for it was neither contracted as if by grief, nor relaxed by pleasure, nor possessed by laughter or dejection. He was not troubled when he saw the crowd, nor overjoyed at being welcomed by so many. But he remained himself as someone governed by reason and steadfast in his natural state.⁶⁵

This is a highly important passage in the biography of Antony, one of its highlights. It is now, after twenty years of solitude, at age 55, that Antony reappears and founds his community of monks. And it is precisely here that Athanasius uses a passage that also occurs in Porphyry's *Life of Pythagoras*.⁶⁶ In fact, Pythagoras, too, is "about 56 years old" when he finishes his travels abroad and returns to Samos.⁶⁷ The coincidence is hardly chance, and the most likely explanation is that in this detail too Athanasius or his source had used the biography of Nicomachus, which was also an important basis for Porphyry and Iamblichus (§ 1). But – and this is highly significant – Athanasius' account is not a mechanical

ὥσπερ ἐπὶ στάθμῃ τὴν αὐτὴν ἔξιν διεφύλαττεν, οὐ ποτὲ μὲν ὑγιαῖνον ποτὲ δὲ νοσοῦν, οὐδ' αὖ ποτὲ μὲν παινόμενον καὶ αὐξανόμενον ποτὲ δὲ λεπυνόμενον καὶ ἰσχναινόμενον, ἢ τε ψυχὴ τὸ ὅμοιον ἦθος αἰεὶ διὰ τῆς ὀψεως παρεδήλου. οὔτε γὰρ ὑφ' ἡδονῆς διεχεῖτο πλέον οὐθ' ὑπ' ἀνίας συνεστέλλετο, οὐδ' ἐπίδηλος ἦν χαρᾶ ἢ λύπη κάτοχος, ἀλλ' οὐδὲ γελάσαντα ἢ κλαύσαντά τις ποτ' ἐκείνον ἐθεάσατο.

65 Athanasius, VA 14.1–4, ed. Bartelink: Εἴκοσι τοίνυν ἐγγὺς ἔτη διετέλεσεν, οὕτω καθ' ἑαυτὸν ἀσκούμενος, οὔτε προϊών, οὔτε παρά τινων συνεχῶς βλέπόμενος. Μετὰ δὲ ταῦτα, πολλῶν ποθούντων καὶ ζηλῶσαι θελόντων τὴν ἀσκησιν αὐτοῦ, ἄλλων τε γνωρίμων ἐλθόντων καὶ βία τὴν θύραν καταβαλόντων καὶ ἐξεωσάντων, προήλθεν ὁ Ἀντώνιος ὥσπερ ἐκ τινος ἀδύτου μεμυσταγωγημένος καὶ θεοφορούμενος. Καὶ τότε πρῶτον ἀπὸ τῆς παρεμβολῆς ἐφάνη τοῖς ἐλθοῦσι πρὸς αὐτόν. Ἐκείνοι μὲν οὖν, ὡς εἶδον, ἐθαύμαζον ὁρῶντες αὐτοῦ τὸ τε σῶμα τὴν αὐτὴν ἔξιν ἔχον, καὶ μῆτε πλανθῆν, ὡς ἀγύμναστον, μῆτε ἰσχνωθῆν ὡς ἀπὸ νηστείων καὶ μάχης δαιμόνων, τοιοῦτον δὲ οἶον καὶ πρὸ τῆς ἀναχωρήσεως ἦδεισαν αὐτόν. Τῆς δὲ ψυχῆς πάλιν καθαρόν τὸ ἦθος. Οὔτε γὰρ ὡς ὑπὸ ἀνίας συνεσταλμένον ἦν, οὔτε ὑφ' ἡδονῆς διακεχυμένη, οὔτε ὑπὸ γέλωτος ἢ κατηφείας συνεχόμενη. Οὔτε γὰρ ἐωρακῶς τὸν ὄχλον ἐταράχθη, οὔτε ὡς ὑπὸ τοσούτων κατασπασζόμενος ἐγεγῆθει· ἀλλ' ὅλος ἦν ἴσος, ὡς ὑπὸ τοῦ λόγου κυβερνώμενος καὶ ἐν τῷ κατὰ φύσιν ἐστώς.

66 This is well seen by Hägg 2011 at 23–24.

67 Iamblichus, VP 19: εἰς Σάμον ὑπέστρεψε περὶ ἕκτον πού καὶ πεντηκοστὸν ἔτος ἡδὴ γεγονώς.

transposition as Reitzenstein claimed.⁶⁸ On the contrary, he uses the description of Pythagoras but gives it a special significance. Whereas the description of Pythagoras focuses on his regular diet and the containment of hunger and thirst as well as a state of *ataraxia*,⁶⁹ in the case of Antony it is a specific moment in his life. One may grant Reitzenstein that the description of Antony's *ataraxia* is somewhat out of place here and more or less mechanically copied by Athanasius. Yet it is not wholly misplaced, as laughter, for example, was an emotion most monks tried to do without.⁷⁰ In that respect, the *Life* may also have had a prescriptive influence.

Moreover, this moment in Antony's *Life* is accentuated by the metaphor of the Mysteries. This is rather remarkable given the resistance to the Mysteries of Christian apologists, such as Clement, Arnobius, and Firmicus Maternus, but after the victory of Constantine we observe a virtually immediate appropriation of Mystery language, as is the case here.⁷¹ The mention of the *adyton* may have reminded the Egyptian readers of the *Life* of the secret and subterranean chambers of Egyptian temples, but the reference in Porphyry probably goes back to the source of Antonius Diogenes, and *adyta* were not absent from Greek Mysteries either.⁷² In any case, we can hardly miss the fact that according to Iamblichus (*VP* 19) Pythagoras also spent twenty-two years in the sanctuaries (ἁδύτοις) of Egypt where he was being "initiated ... in all the Mysteries of the gods" (μυούμενος ... πάσας θεῶν τελετάς). Yet Antony emerges θεοφορούμενος, "inspired by the spirit of God." This is the other important difference with Pythagoras. What Antony does, he does with the help of God, not by his own force. In that respect Rubenson was absolutely right that there is a certain anti-Pythagorean slant in the *Life*.⁷³

When we accept this creative usage of Pythagorean material, we can better accept that Athanasius both appropriated and transformed Pythagorean themes. In other words, we can see his *Life*, on one level, as an attempt to use a pagan sage whose influence was paramount in Late Antiquity and whose traditions displayed clear similarities with the lifestyle of the earliest Christian monks. On the other hand, Athanasius was not a slavish follower of his sources. In this respect Reitzenstein was probably still too much a child of his time and the intellectual climate of the *Religionsgeschichtliche Schule*, which looked for continuities with the pagan world rather than differences from a Christian point of view.⁷⁴ That is why he did not notice Antony's rejection of school education (1) and his rejection of travel (20), whereas Pythagoras' travels were a well known topos of his biography.⁷⁵

68 Reitzenstein 1914, 17.

69 Cf. also Iamblichus, *VP* 10.

70 Bremmer 1992, 207–208; for derisive laughter, though, see Elm 2013.

71 Bremmer 2014, 161–164.

72 Graf 1997, 89–91 (Egypt); Bremmer 2009, 297–298.

73 The theme is further elaborated by Rubenson 2013, 85–91.

74 Simon 1975; Wiens 1980; Krech 2002, 124–126; Janssen 2011.

75 Melloni 1969, 76–114.

But Rubenson overlooked that André-Jean Festugière (1898-1982) had already noted the anti-Pythagorean slant of the *Life* as well and had elaborated on the differences from Iamblichus' *On the Pythagorean Life* (VP) in greater detail.⁷⁶ As Iamblichus went back to the same older sources that were used by Porphyry or can be paralleled in the latter, it seems important to note these differences here. Pythagoras is considered a "child of god" (VP 10) but Antony is called θεοφιλής, "God loving" (4.4, cf. Bartelink *ad loc.*). Whereas the miracles of Pythagoras are related to demonstrate his divinity (VP 138–143), Antony is careful to stress continually that the miracles come from God (56, 58–59, 62, 83–84). Pythagoras is free from the necessities of the body: he needs no food, no drink, no sleep (VP 16). Antony has not reached that degree of perfection, but he also feels ashamed that he has to eat or sleep and does so away from his fellow monks (45). Yet Pythagoras, and Abaris already before him (Iamblichus, VP 141), do not want to be seen to eat in order to look like the gods, whereas Antony does not want to do so because it reminds him painfully that he is human and thus unable to unite with God.

Conclusion

We have seen that since Reitzenstein scholars have realized that Athanasius made use of Pythagorean writings in order to shape his biography of Antony. There has been less acknowledgement of the fact that in this process he not only took over themes from the Pythagorean tradition, but also represented his protagonist as a kind of anti-Pythagoras. Gemeinhardt (2012) has recently stressed the importance of martyr terminology and themes in the *Life*. This is certainly valid and identifies a significant feature of the biography. Yet by denying the Pythagorean background, he misses an important aspect. The biography stresses that God did not want Antony to suffer martyrdom, but had chosen to make him the master of a great number of people in the ἄσκησις (46.6). In other words, from the point of view of Athanasius, who wrote well after the end of the persecutions, the ἄσκησις was more important than martyrdom. But precisely in the area of ἄσκησις the Christians had competitors in the traditions and, perhaps, practices of the Pythagoreans. That is why Antony had to be represented as recognizable in comparison with Pythagoras himself and his followers, but also as very different. When looking at the Pythagorean tradition of ἄσκησις we should not neglect the transformations of that tradition in the world of the early Christian monks.⁷⁷

⁷⁶ Festugière 1971, 455–461, a study not mentioned by Rubenson 2006 or Gemeinhardt 2012.

⁷⁷ I am most grateful to audiences in Berlin (2013) and Zürich (2014) for comments, to Constantinos Macris for his critique of my first version, to Rachel Yuen-Collingridge for her thoughtful correction of my English and to Jitse Dijkstra for his scrutiny of my final version.

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IV Dietetics & Medicine

The Pythagoreans on Medicine: Religion or Science?*

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The members of the Pythagorean communities, especially the so-called *akousmatikoi*, advocated a lifestyle different from the current norms, held their own beliefs concerning the post-mortem fate of the soul, and were involved in public affairs.¹ Moreover, several Pythagoreans, who are commonly referred to as the *mathematikoi*, contributed to various sciences, including mathematics, astronomy and music. These two different facets of Pythagoreanism, the religious and mystical and the scientific and rational, often intersect and complement each other, thus posing a number of questions with respect to the Pythagorean contribution to medicine and the transfer of knowledge between intellectual fields. Were the Pythagoreans interested in purifying the body or exploring microcosmic structures and processes? To what extent did moral norms, religious and eschatological beliefs, and political ideas influence their medical doctrines? Did they merely conceptualize health as a physical equilibrium, or did they also comment on its importance for the community to which one belongs? Did they try to prevent and cure disease by applying their own practices, or did they adopt the current methods in preserving and restoring health?

I suggest that the medical doctrines of the Pythagoreans have a significant difference from those formulated by other contemporaneous thinkers from Magna Graecia. Unlike Alcmaeon, Parmenides, Hippo and Empedocles who attempted to explain a number of biological functions in rational terms, the Pythagoreans, with the exception of Philolaus, did not tackle key questions pertaining to medicine, such as the constitution of the body, the aetiology of health and disease, and the processes of reproduction and sex differentiation. Rather, they were mostly interested in the interface between medicine and the rules that should govern life. Their medical doctrines were thus based on a set of beliefs inextricably con-

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1 This paper focuses on the early phase of Pythagoreanism, a period spanning from the end of the sixth century to the first half of the fourth century BC. It refers to medicine in a broad sense, namely as an intellectual field in which several thinkers put forward theories concerning the body, well-being and other interrelated topics, although they were not practising physicians.

nected with the Pythagorean way of life and their core ideas concerning purification, proportion, social organization and numbers.

The texts that support this thesis are gleaned from sources which are generally regarded as reliable.² I first survey a set of maxims which constitute the earliest known pieces of Pythagorean lore and prescribe dietary restrictions (section I). I then turn to some fragments deriving from Aristoxenus' treatises on the Pythagoreans, which record practical rules for a healthy life and healing doctrines (section II). Finally, I examine the doxographical section preserved in the *Anonymus Londinensis*, which summarizes how Philolaus described the respiratory process (section III).

1 Dietary restrictions

The disciples of Pythagoras, who is sometimes considered the inventor of a regimen suitable for athletes or even a doctor,³ advocated a lifestyle governed by prohibitions and obligations, as can be seen from various maxims that were handed down orally and were supposed to contain the original words of the master. These concise pieces of wisdom can be divided into three groups: (a) maxims that indicate what a thing is; (b) maxims that specify what is the superlative form of things; (c) maxims that stipulate what one must do or must not do (Iamb. *VP* 82).

Maxims pertaining to medical topics can be found in all the groups, but it is sufficient for the purposes of this paper to concentrate on the third group, which comprises most of the extant material.⁴ Dietary restrictions are applicable to a range of foods, including the meat of non-sacrificial animals, beans, certain species of saltwater fish or even plants, and parts of animals, such as the heart, the womb and the brain (D. L. 8.18–19, 33–34; Porph. *VP* 42–45; Iamb. *VP* 85, *Protr.* 21; Aul. Gel. *NA* 4.11). These maxims are presented in the concise format “do not eat / do not touch / abstain from X” and are sometimes followed by some explanation, but they offer no guidance on what one should eat. In fact, they are mingled with various prohibitions on clothing, conduct and activities, as well as ritual prescriptions. Is there a rationale behind them or an indication of some interest

2 I do not deal with the doctor Democedes and two medical theorists, Alcmaeon and Hippo, who are sometimes associated with Pythagoreanism (see, for example, Zhmud 2012, 347–385). In my view, they are independent thinkers (on the criteria for identifying individuals as Pythagoreans I follow Huffman 2008a, 292–301). I also exclude from this paper the biographical evidence pertaining to Pythagoras, which is mostly based on legends (Burkert 1972, 97–120), and the *Pythagorean Memoirs* of Alexander Polyhistor, which blends Pythagorean material with Presocratic, Academic and Stoic doctrines.

3 Burkert 1972, 293.

4 A maxim from the first group defines health as retention of form and disease as its destruction (D. L. 8.35). This striking definition cannot derive from the earliest collections of maxims, since the term *eidos* has Platonic overtones and probably designates the ideal shape of the body (Burkert 1972, 168, n. 18). A maxim from the third group, formulated in a question-and-answer format, describes medicine as the peak of wisdom (Iamb. *VP* 82). This idea seems to be related to the report that the Pythagoreans considered medicine, music and divination as the most revered sciences (Iamb. *VP* 163).

in the properties of each food and its effects on the body? Let us examine two famous maxims to answer this question.

There are conflicting reports about the ban on eating meat, which indicate that it was modified in the course of time and interpreted variously.⁵ The ban is presumably connected with Pythagorean beliefs about the soul, which is supposed to be immortal and to transmigrate into different kinds of living beings (Porph. *VP* 19), and with the importance of animal sacrifice in their daily programme (Isoc. *Bus.* 28; Iamb. *VP* 82), rather than with the adoption of strict vegetarianism as a rule for a healthy life. This is confirmed by the fact that the relevant maxims did not command full abstinence from animal products, but specified what types of meat should not be consumed in accordance with religious criteria. For example, one is not allowed to taste parts of animals and species of fish that are sacred (Porph. *VP* 42–45; Iamb. *Protr.* 21), eat the flesh of animals that are not sacrificed (Iamb. *VP* 85), or touch a white cock, since it is a sort of suppliant who announces the months and its colour represents the good (D. L. 8.34). The formulation of these interrelated bans, whose content can be paralleled in Greek mystery cults,⁶ suggests that the Pythagoreans (or at least some of them) did consume meat, as Aristoxenus confirms when he notes that Pythagoras abstained only from plough oxen and rams and enjoyed other types of sacrificial meat (Aristox. fr. 29a). Therefore, the ban is not constructed to prohibit a harmful food but to specify the conditions under which it can be consumed.

Another famous ban is connected with beans, which are often mentioned in Greek cult and mythology but are never described as playing a crucial role for the functioning of the body in the Hippocratic treatises. Already in antiquity several authors speculated about the meaning of this maxim and interpreted it in different ways. Consider, for instance, the explanations given by Aristotle in his lost work *On the Pythagoreans*: (a) beans resemble testicles; (b) they are similar to the gates of Hades for they are the only plant that has no joints; (c) they are destructive; (d) they resemble the nature of the universe; (e) they are used in allotting political offices (D. L. 8.34). Explanations (a) and (b) are centred on the structural similarities of beans to sexual organs and the mythical entrance to the underworld respectively. Explanation (c) contains a vague reference to the destructive effects of beans which may pertain to physiology or ethics. Explanation (d) suggests that the shape and / or the effects of beans reflect cosmic structures, since the Pythagoreans describe the universe as a sphere with a fire at its centre which draws in air, time and void from the unlimited expanse. Explanation (e) is based on a common function of beans in democratic circles, which were hostile to the Pythagoreans.

Leaving aside the controversies surrounding the meaning of this ban, two things cannot be disputed. First, the maxim itself contains no justification for the

5 Zhmud 2012, 234–237.

6 Burkert 1972, 177–183.

dietary restriction. The concealed meaning, if any, was intelligible only to those initiated in Pythagoreanism and the outsiders had to speculate about its interpretation. This intentional ambiguity is connected with the tendency of the Pythagoreans to maintain secrecy regarding their doctrines (Iamb. *VP* 72). Wisdom was thus limited to a closed circle of initiates, especially those who were higher in rank, and was not diffused in public. Second, in Aristotle's view, the maxim is rooted in superstitions or hidden beliefs and not in a semi-scientific investigation into the effects of beans on the body. The reference to the destructive force of beans suggests that an explanation on hygienic grounds (allergy, digestion problems, sterility) was considered to be possible, although Aristotle did not comment on this issue.⁷ Later authors, however, assumed that beans were banned because they are not easily digestible (Callim. fr. 553) or because they disturb our mental tranquillity (Cic. *Div.* 1.62), but these are mere speculations which are in conflict with Aristoxenus who notes that, according to Pythagoras, beans have a softening and laxative effect on the body (Aristox. fr. 25).

Contrast this Pythagorean prohibition to the content of *On Regimen*, a Hippocratic treatise which attempts to account for the efficacy of foods, drinks and drugs by referring to the properties of each stuff, the way in which it interacts with its environment, and the factors that affect its power. The section dealing with beans is illuminating:

Beans are nutritious, astringent and flatulent. They are flatulent because the passages do not admit the abundant nourishment which is brought in, and they are astringent because they have a small residue from its nourishment. Peas are less flatulent, and are excreted better (*Vict.* 2.45).

Unlike the Pythagoreans who simply banned beans for reasons which remain obscure, the medical author commences by mentioning the main properties of this food, and then justifies his claims by providing an explanation that leaves no room for speculation. He focuses on the processes of digestion and excretion of beans, and compares their features to other legumes. Beans are thus placed in the realm of human physiology and nourishment, like other stuffs examined in *On Regimen*. Moreover, the medical author presents his ideas in a clear-cut format, thus attempting to illuminate any reader who is interested in dietetics, either the professional physician or the layman.

These considerable differences in the content and approach between the Hippocratic treatise and the Pythagorean prohibition indicate that the latter can hardly be placed in a medical context. In fact, dietary restrictions, along with oth-

7 Grmek 1983, 210–244, suggests that this ban is connected with favism, a genetic allergy to the broad bean which is common in southern Italy, the homeland of most Pythagoreans. If this is the case, the ban had a practical expedient and was founded on the observation of the effects of beans on the body. We cannot, of course, exclude this possibility, since religious injunctions are often intermingled with precepts dealing with dietetics and hygiene, which are an important prerequisite for achieving purity.

er instructions, constitute a sort of sacred code designed to maintain the purity of the members of the sect:

Purity is obtained through purifications, ablutions, sprinklings, and from not having contact with a corpse, a woman who has just given birth, and any other contamination, and from abstaining from the meat of dead animals, mullets, black-tails, eggs, birds born from eggs, beans and all foods forbidden by those who are in charge of celebrating rites in temples (D. L. 8.33).

Cathartic rites and abstention from certain types of food are part and parcel of a distinct way of life, whose ultimate goal is the purification of the body from inherited sins. The expert who bans harmful stuffs can be associated with the religious sage who is castigated at the beginning of *On Sacred Disease* rather than a Hippocratic author.

One may, of course, note that the maxims are traced in the early phase of Pythagoreanism in which life sciences, such as medicine, dietetics and embryology, had not been developed and detached from religion. The concise pieces of wisdom embodied in some maxims, especially those dealing with the definition of beings and their superlative form, motivated the talented members of the sect to elaborate on gnomic utterances and to contribute to various disciplines. Even if we think of a gradual transition from the religious and mythological lore of the time of Pythagoras, the legendary master, to a period of scientific progress and diffusion of knowledge which culminates with Archytas, the great mathematician, it is clear that the Pythagorean way of life influenced the discourse about well-being to a great extent.

2 Aristoxenus on Pythagorean medicine

The best source for tracing this interconnection is Aristoxenus, who was linked with the last Pythagoreans before joining the Lyceum, and composed several treatises on Pythagoreanism, including *On Pythagoras and His Associates*, *On the Pythagorean Way of Life*, and the *Pythagorean Precepts*.⁸ Aristoxenus normally gives an idealized picture of the Pythagoreans, and tries to demonstrate that they lived in accordance with their moral principles. It is thus widely held that Aristoxenus integrates Platonic and Aristotelian doctrines into the *Pythagorean Precepts*.⁹ However, Huffman, who has recently assessed the extant fragments, argues that the treatise reflects genuine Pythagorean ideas of the late fifth and early fourth century BC, despite some doctrinal similarities to contemporary texts, and provides

8 Aristoxenus' fragments are cited from Wehrli 1945, whose criterion is whether an author mentions Aristoxenus by name. Diels, however, thinks that several sections of Iamblichus' *On the Pythagorean Way of Life*, which contain no reference to Aristoxenus but comment on the Pythagoreans as a group, derive from the *Pythagorean Precepts*. He collects them in the D-section of the chapter dealing with the "Pythagorean school" (DK, vol. I: 467–478).

9 Wehrli 1945, 59; Burkert 1972, 107–108; Zhmud 2012, 65, n. 17.

evidence for a conservative strand in Greek ethics.¹⁰ The moral system has a coherent and rational structure and supplies the commands with some argumentation, thus differing from the bizarre maxims. Building on Huffman's arguments about the authenticity and significance of the *Pythagorean Precepts*, let us examine the scattered references to topics pertaining to medicine.

According to Aristoxenus, Pythagoras stipulated that the lifestyle of his disciples should be constructed in such a way that prevents immoderation in all aspects of private and public life:

We should avoid by all means and banish by fire, iron and all sorts of devices disease from the body, ignorance from the soul, extravagance from the belly, strife from the polis, discord from the house, and immoderation from everything (Aristox. fr. 17 = Porph. *VP* 21; cf. Iamb. *VP* 68–70).¹¹

Underlying this emphatic statement is the belief that disease is not merely a sort of imbalance or strife between the bodily constituents, as was common in medical authors (*Nat. Hom.* 4, *Vict.* 1.2), but also that it is the physical counterpart of a harmful condition which pervades the entire human sphere. The disorderly functioning of the body and the soul, the excessive consumption of food and drink, and family or social conflict are described as different manifestations of this immoderation which must be eliminated by forceful means. These examples suggest that health is understood as the preservation of balance and peace in the body, although the nature, number and relationship of the bodily constituents which should be moderated are not specified.

How can we preserve health? Some clues can be found in fragments dealing with the political ideas of the Pythagoreans. They thought that anarchy is the greatest evil in society, and so suggested that authorities should supervise civic life. For this very reason, they distinguished the rulers from the people, and described their proper relationship and respective virtues. They also divided the people into four age groups (children, young men, mature men, the elderly), and stipulated appropriate activities for each of them (studying, participating in civic life, administering public affairs, advising). The necessity for supervision of all stages and aspects of life, especially those related to children, was a key feature of this social organization:

They said that it is necessary, even from one's youth, to have a balanced diet, teaching that order and moderation are fine and advantageous, but disorder and immoderation are shameful and disadvantageous (Aristox. fr. 35 = Stob. *Ecl.* 4.1.49).

¹⁰ Huffman 2006, 2008b.

¹¹ The text cited here is not the entire fragment, which provides biographical details concerning Pythagoras and may derive from *On Pythagoras and His Associates* (Wehrli 1945, 51–52). The preceding lines deal with Pythagoras' contribution to the civic stability of Magna Graecia, and conclude with a sort of dictum that summarizes his doctrines.

A balanced diet has a twofold function: it contributes to physical equilibrium, and serves didactic purposes. Whereas the first function was universally acknowledged by medical authors (*Aër.* 1, *Nat. Hom.* 16, *VM* 3), the second function seems to be a genuine Pythagorean idea. A balanced diet makes it clear that order and proportion are beneficial to individuals, whereas their opposites bring about problems. Hence the constraint on the desire to eat and drink excessively is a means of understanding the significance of moderation. The latter is envisaged as a universal principle with positive effects in different domains, since the Pythagoreans tried to find out proportions in music, astronomy, mathematics and politics in order to specify the relation of all particulars that compose a unified whole.

There are several reports that the Pythagoreans constructed their own diet as part of a carefully-structured daily programme suited to maintaining health and serenity: they preferred to eat bread and honey (*Aristox.* fr. 27), avoided drinking wine during the day (*Iamb.* *VP* 97), and had a light dinner (*Iamb.* *VP* 98). It is also clear that special emphasis was laid on the proper place of sexuality:

In general, they thought that the so-called precocious should be avoided, for the beings which are precocious in plants or animals do not bear good fruits, <but it is necessary to have> some time before bearing fruits so that the seeds and fruits arise from bodies which are strong and complete. There are many things in life which are better learned late, as in the case also with the business of sex. It is necessary then, that they be kept so busy with training while still children, that not only do they not seek it but, if possible, that they not even know of such intercourse until they are twenty. Even when the children reach this age, they should rarely engage in sex. For this contributes considerably to the good health both of those that are begetting and of those who are going to be borne. He said also that one should not associate with women for reproduction when one is full of food or drunk. For he does not think that well proportioned and beautiful things arise from a base, discordant, and disordered union, but things that are not at all good (*Aristox.* fr. 39 = *Stob. Ecl.* 4.374).

The process of reproduction is examined from a moral perspective. The fragment commences with an observation drawn from the natural world: living beings fail to produce fine fruits and offspring in a premature stage. Their best products are generated when they reach their proper age and completion. Inasmuch as the biological processes of all living beings are subject to the same norms, we can infer that nature instructs humans to beget children when they are mature.

This conclusion is supplemented with various observations which impose constraints on sex. Children are not allowed to have sex or even acquire any knowledge about it. Rather, they are encouraged to participate in athletics (*Iamb.* *VP* 209) and focus on their studies (*Aristox.* fr. 35). Even after maturity sex should not be a regular activity in order to maintain the health of individuals and that of their offspring. The circumstances under which one should beget children are

specified: the male should not have sex if he has consumed much food and drink. Moreover, he should avoid a woman who wears gold jewellery, an indication of luxury (Iamb. *VP* 84). There is clearly a concern for the avoidance of excess, as noted above (Aristox. frs. 17, 35), and the control of desires that are supposed to be vicious when they display “shamefulness, immoderation and bad timing” (Aristox. fr. 37). However, this is not based on an empirical investigation of the side-effects of excessive sex but on the assumption that the process of procreation has an decisive impact on the nature of the offspring. Hence sex is not conceived as a natural need but as an action that guarantees the reproduction of humans, as can be confirmed by a maxim which stipulates that one ought to beget children in order to leave behind someone to worship the gods (Iamb. *VP* 83). These texts provide evidence for a lifestyle with prevention rather than cure as the foundation of a healthy life.

We also possess some evidence for the practical application of medicine which can be juxtaposed with the techniques developed by medical authors.¹² According to Aristoxenus, the Pythagoreans thought that the healing of the body through medicine is on a par with the purification of the soul through music.¹³

The Pythagoreans, as Aristoxenus said, used medicine for purifying the body and music for purifying the soul (Aristox. fr. 26 = Cramer, *Anecd.* Paris. I 172).

It is clear from this brief statement that an individual is understood as consisting of two interconnected parts, the physical and the psychic, which represent respectively the temporary residence of the soul and the divine particle of the body. Both parts are supposed to suffer from a sort of contamination which can be removed with the aid of different arts. Inasmuch as medicine is defined as the art dealing with the body, its connection with catharsis is worth exploring. The concept of catharsis is quite prominent in the Hippocratic treatises, referring to various treatments that involved cleansing poisonous liquids or stuffs and discharging harmful or excessive material from the body through evacuations.¹⁴ Catharsis is thus a technique to cure the body and is not associated with the purification of the soul. An entirely different idea is traced in Pythagoreanism. Catharsis is not one of the medical techniques but the ultimate goal of medicine. The task of a Pythagorean doctor overlaps with that of the religious sage who prescribes a set of customs which oblige their adherents to live in state of moral purity.

12 A dubious report from Iamblichus suggests that the Pythagoreans practised medicine in a systematic manner: they focused on dietetics, tried to specify a due proportion in exertions, food and rest, made distinctions concerning the preparation of foods, used poultices more than their predecessors but approved of drugs to a limited extent, minimized the use of surgery and cautery, used incantations to cure some illnesses, and believed that music contributes to health (Iamb. *VP* 163–164).

13 On the use of music as a cathartic technique in Pythagoreanism see Provenza 2012.

14 On the concept of catharsis in Hippocratic medicine see von Staden 2008.

The role played by odd and even numbers, a polarity found in the cosmology of Philolaus and the Pythagorean table of opposites, seems to be applied in medicine too:

For the unit is the beginning of number, and number is the sum of units. Numbers which are divided into equal parts are even, while those divided into unequal parts and having a middle point are odd. Hence they believe that the critical days of diseases and changes take place in odd days which have a beginning, a peak and a decline, because the odd number has a beginning, an end and a middle (Aristox. fr. 23 = Stob. *Ecl.* 1 Prooem. 6).

The observation, description and recording of the critical days of diseases is a recurrent theme in the Hippocratic treatises, since it was widely held that certain days are of particular importance for its development and special measures should be taken at this crucial stage.¹⁵ There was, of course, a wide diversity as to the date and sequence of critical days, the prognostic value of various signs which are obtained through the senses (fever, rigor, excretions), and the therapeutic prescriptions. As to the first question, the authors of *On Diseases IV*, *On the Seventh-month Foetus*, and *On Regimen in Acute Diseases*, for example, share the widespread view that odd days are crucial to the survival of the patient. The author(s) of *Epidemics I* and *III*, on the other hand, emphasize(s) the changes that occur on both even and odd days in recording numerous case histories, while the author of *Prognostic* proposes a complex numerical system, mostly but not exclusively based on odd numbers, in order to describe the days in which a febrile disease ends its attacks on the patient. Despite these disagreements as to the precise time of critical days, the medical authors often attempt to draw conclusions in conjunction with a number of observational data, such as the nature of disease, the presence of certain symptoms, the constitution and habits of the patient, and the external factors.

The Pythagoreans, on the other hand, seem to undervalue the empirical foundation of medicine. Their explanation is based on the assumption that numbers reveal the true nature of beings and can thus be identified with certain concepts (Arist. *Met.* 985b26–31), such as justice which is thought to be the first square number and due season which is connected with the number seven (Alex. Aphr. in *Met.* 38.10–39.3). Inasmuch as an odd number has a threefold division, its structure resembles the general pattern of progression of any disease, which always has a beginning (an initial stage of bodily disorder that produces specific signs), a peak (the time in which bodily disorder reaches the highest point), and an abatement (recovery and survival or deterioration and death). Observing these structural similarities between a set of numbers and disease, the Pythagoreans suggest that odd days are important for determining the final stage of any disease.

15 On critical days in Hippocratic medicine see Langholf 1990, 79–135.

However, this is pure speculation which is founded on a naive number symbolism and disregards a number of observational data.

3 Philolaus' embryology

It can be argued that the fragmentary texts examined above reflect the efforts of Aristoxenus to stress the rational elements of the Pythagorean way of life and its interconnection with the doctrines put forward by the so-called *mathematikoi*. Indeed, Philolaus, the sole Pythagorean of whom we possess a sufficient number of fragments, seems to shift the Pythagorean interest in the physical equilibrium in a new direction by describing the construction of the body with reference to his metaphysical principles and by providing an aetiology of disease in terms of the transformations of the bodily constituents and other contributory causes (44 A 27 DK). He thus offers a rational account comparable to the material found in the earliest Hippocratic treatises and the medical doctrines attributed to Alcmaeon, Hippo and Empedocles.¹⁶

Although Philolaus represents a sophisticated version of Pythagoreanism, his embryology contains a striking analogy which seems to be related to a moral norm advocated by the Pythagoreans.¹⁷ According to an anonymous doxographer who offers summary accounts of the doctrines of his predecessors concerning the constitution of the body and the factors that affect its functioning, Philolaus describes the respiratory process as follows:

With regard to its construction he makes use of the following reasoning. He says that, immediately after birth, the living being draws in the external air which is cold. Then it sends it out again, like a debt. Indeed, it is for this reason that there is a desire for the external air, so that our bodies, which are too hot, by the drawing in of air which is brought in from outside are cooled by it (44 A 27 DK).

In the preceding lines, Philolaus argues that the foetus has no share of cold, since the material that constructs it (sperm) and its location during the gestation period (the womb) are connected with heat exclusively. The first act of a newborn infant is to establish a moderate temperature within its body by drawing in the external

¹⁶ Manetti 1990, 222–233. Philolaus' testimonies and fragments are quoted from the handbook of Diels-Kranz.

¹⁷ Philolaus provides a rational model of the universe but also integrates moral and religious ideas deriving from Pythagoras into cosmic structures (Huffman 2013, 74–76). The following examples can be cited: (i) he describes the central fire as the "garrison and tower of Zeus" (44 A 16 DK and 58 B 37 DK), thus identifying it with the fire that Prometheus tried to steal from Zeus's fortress; (ii) he notes that the moon is inhabited by living beings which are superior to humans (44 A 20 DK), an idea which is probably related to the maxim that identifies the sun and the moon as "the islands of the blessed" (Iamb. VP 82); (3) he locates the origins of cognition and life in parts of the body (44 B 13 DK) which should not be eaten.

air and then discharging it. The newborn infant is thus cooled to the appropriate degree, and survives through this constant intake and release of air.

Two points should be noted in relation to this description. First, the generation of living beings is analogous to the creation of the universe to some extent, since in an early cosmogonic stage the central fire draws in air, time and void from the unlimited expanse after it is constituted in the centre of the universe (44 B 7 DK and 58 B 30 DK). Second, the respiratory process can be interpreted as a micro-cosmic application of the fundamental principles that compose the universe: “unlimiteds,” namely continua which are not defined by any structure or quantity, such as space, time and heat; “limiters,” namely structures which set a limit to the continua, such as the number ratios that confine the sound and produce a musical scale; and “harmony,” namely the combination of the former principles (44 B 1–2, B 6 DK). As far as the living beings are concerned, hot seems to be conceived as the “unlimited,” inasmuch as it is the sole constituent of the foetus, and cold as the “limiter” for it is imposed upon the innate heat after birth. Alternatively, we may think that the external air is the “unlimited,” inasmuch as it assumes this role in the cosmogony, and the “limiter” is the body in which it is confined, or that hot and cold are both “unlimiteds” and the respiratory process is the “limiter” which controls their dominion within the body. These issues cannot be analysed in detail here,¹⁸ but there is a point which deserves some discussion.

According to Philolaus, the introduction of a share of cold into the hot body is a sort of loan taken by the external air, which is repaid directly to the creditor at regular intervals. This continuous transaction between the living being and the unlimited expanse, as long as the former is alive, is described with the words *kathaperei chreos*. We have good reasons to think that these words go back to Philolaus. First of all, the respiratory process is thought to mirror a familiar process, the exchange of goods and services in monetary terms, since early philosophers and medical authors often depict the functioning of the body in terms of images and concepts connected with human activities.¹⁹ This analogy is formulated in poetic words which are not attested in Peripatetic authors who refer to the binding norms of *anagke* when they report the doctrines of their predecessors (contrast 22 A 5 DK to 22 B 80 DK). Indeed, in the earliest surviving pieces of Ionian philosophy the concepts of necessity and retributive justice are intertwined to indicate either the mutual encroachments of cosmic opposites in Anaximander (12 B 1 DK), or the continuous strife that governs all cosmic processes in Her-

18 Huffman 1993, 43–47, 289–306. Sedley 1995, 22–26, suggests that the balance of hot and cold in the body results in the ensoulment of living beings, since the term used to describe the cooling of the body with the aid of the external air (*katapsychousthai*) alludes to the soul (*psyche*) which is depicted as a harmonious blending of cosmic elements by Philolaus’ pupils in the *Phaedo*. This doctrine is reported by Aristotle as one of the Pythagorean beliefs about the soul and is attributed to Pythagoras and Philolaus by Macrobius (44 A 23 DK), but that may be an inference drawn from Plato.

19 Lloyd 1966, 172–420.

aclitus (22 B 80 DK). In this respect, the norms of retributive justice cannot be distinguished from those of necessity which signify the regular and ordained course of events.

But what exactly happens in the hot body after the insertion of a share of cold? The summary account of the Peripatetic doxographer contains no information and so we can only speculate. Philolaus stresses the fact that our bodies are composed of heat even after birth. This means that when a portion of external air enters the hot body it is assimilated to the innate heat, although it lowers the bodily temperature to some extent. This transformation is a kind of injustice for the creditor loses some of its property and should be compensated. A portion of the innate heat thus returns to the unlimited expanse where it is assimilated to the external air and so forth. Although it is not clearly spelt out in the summary account of Philolaus' embryology, I suggest that a kind of reciprocity, comparable to the notion of retributive justice attributed by Aristotle to the Pythagoreans (58 B 4 DK), regulates the respiratory process. In analysing the forms of "particular justice" in the *Nicomachean Ethics* V, Aristotle points out that the Pythagoreans defined justice as mere arithmetic reciprocity, without raising any questions about the nature of the wrongdoing. In fact, they thought that one should suffer exactly the injury done, namely "an eye for an eye." This seems to be the system of justice underlying the respiratory process: a wrongdoing is corrected through a straightforward compensation to the injured party, namely "some hot air for some cold air." If this is the case, Philolaus seems to be adapting a moral norm to his philosophical system in order to illustrate a microcosmic process.

4 Conclusions

As far as we can judge from the fragmentary texts discussed in this paper, the Pythagoreans, with the exception of Philolaus, did not consider medicine to be a branch of natural philosophy with its own agenda and method. Rather, the discourse about well-being is built on their core ideas concerning purification, proportion, social organization and numbers, a nexus of notions that are adapted to different contexts and reworked in the Pythagorean tradition. They supplied the members of their sect with dietary restrictions reflecting superstitions and hidden beliefs, followed a lifestyle structured in accordance with their conservative ethics, and tried to cure diseases by purifying the body and finding number symbolisms. Even Philolaus, who represents the scientific aspect of Pythagoreanism, seems to integrate a moral norm into his embryology in order to illustrate a microcosmic process. Thus Pythagorean medicine, as it develops from bizarre maxims to a carefully constructed programme for the young members of the community, offers an excellent example of the codification of medical theories and practices in harmony with a philosophical system which, despite its diversity and gradual transformation in the course of time, lays special emphasis on how one should live.

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Pythagoreans and Medical Writers on Periods of Human Gestation

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1 Introduction

Many Greek and some Latin writers refer – usually with cautious qualifications or trenchant criticism – to the idea that children born at seven or nine months after conception will survive, but those born at eight months will not. This paper considers an important group of passages from writings of the imperial period, which present recognizably Pythagorean attempts to defend these doctrines. I shall argue that they draw on two very different kinds of source, each with its own distinctive assumptions about the nature and basis of knowledge, and that, though the substance of their arguments has Hellenistic or later origins, their principal starting-points are pre-Aristotelian. Later medical and biological research is wholly ignored in these authors.

I focus mainly on four passages, two from the *Theologoumena arithmeticae* (of which one is attributed to Nicomachus¹), one from Aristides Quintilianus *De musica*, and one from Proclus. They offer the fullest accounts of the Pythagorean explanations, and seem to represent a consolidated body of mainstream Pythagorean ideas. Their explanatory strategies are very similar; differences of detail show that they are not merely copying from one another, but they all fit smoothly into the same general pattern of thought. Fairly substantial accounts incorporating some of the same material as the mainstream versions appear in Plutarch, pseudo-Alexander, Anatolius, Censorinus, and elsewhere.² Philo of Alexandria and Theon of Smyrna also assert the viability of 7-month births,³ and summary

1 In most cases we cannot check the accuracy of citations in the *Theol. ar.* by reference to texts transmitted independently. Where we can (as in the case of *Theol. ar.* 42–43, corresponding to Anatolius *De dec.* 10.6–11.4), it is clear that the author has paraphrased and slightly abbreviated the passage rather than quoting it verbatim. I shall nevertheless refer to the writer of the passage that concerns us as “Nicomachus,” even though it may not be presented exactly as he wrote it.

2 Plut. *De an. procr.* 1017e–1018b; [Alex. Aphr.] *Pr.* 2.47; Anatolius *De dec.* 8.15–28, 10.13–11.3, 11.24–27, 14.9–10, 14.17–15.2; Cens. *De die nat.* 7.5–6, 9.1–3, 11.1–6.

3 Philo *De op. mundi* 124, *Legum alleg.* 1.9–10; Theon Sm. 104.1–5. For important additional references and detailed discussion see Parker 1999. Parker’s perspective is rather different from mine, but I strongly recommend his article to anyone interested in this topic. Regrettably and no doubt culpably, I became aware of it too late to take it into account when writing this

versions of the Pythagorean explanations appear in a number of Christian writings, in astrological treatises, and in various other texts.

2 Numbers, ratios, and musical structures

Nicomachus introduces his discussion as follows:

That the most important cause of generation is the hebdomad⁴ is shown by the fact that through it 7-month children are no less viable than 9-month children; but the 8-month children placed in between them are destroyed by natural necessity. The Pythagoreans addressed these facts through the following sort of calculation, approaching them through arithmetical ratios and diagrams.⁵

Nicomachus implies, correctly, that the Pythagorean approach was largely mathematical, based on arguments borrowed from arithmetic and geometry. But two qualifications are in order. First, geometry and arithmetic are not treated on an equal basis. Arithmetic takes pride of place; geometrical reasoning and diagrams have only a subsidiary role. Secondly, though the arithmetic itself is sound, it only becomes relevant to the topic of human gestation through its links to another discipline, harmonics. The writers repeatedly draw attention to this connection; Nicomachus does so, for example, when he presents his first specimen of Pythagorean reasoning:

By putting together the fundamental cubes of the two smallest numbers, 2 and 3, which are 8 and 27, they make 35, in which one can very clearly see the ratios of the concords through which *harmonia* is perfected. For all coming-to-be (*genesis*) arises from opposites, wet and dry, cold and hot, and opposites do not agree or come together to compose anything without *harmonia*. And the best of *harmoniai*, which contains all the concordant ratios, is that correlated with the number 35, which not only fills out solidity and completion for the two cubes just mentioned, which are equals multiplied by equals multiplied by equals,⁶ but is also the sum of the first three perfect numbers, those equal to [the sum of] their own parts, in potentiality 1, and in actuality 6 and 28.⁷

paper; and I am grateful to Leonid Zhmud for drawing it to my attention and sending me a copy.

4 That is, the number 7. Locutions such as “dyad,” “tetrad,” and so on are common in texts dealing with these matters, but are rarely more than synonyms for the relevant numbers; in so far as there is a distinction, it is more rhetorical than substantive. For the sake of clarity, in the translations below I have almost always used the numerals instead of the more portentous expressions.

5 *Theol. ar.* 63.1–7.

6 This is the definition of a cube given in *Eucl. El.* 7 Def. 20.

7 *Theol. ar.* 63.7–18. In the sense used here and in the other texts to be considered, a perfect number is a number which is equal to the sum of its factors (cf. *Eucl. El.* 7 Def. 23). Thus $6 = 1+2+3$, and $28 = 1+2+4+7+14$. The number 1 has no factor except itself ($1 \times 1 = 1$), and since it

Here Nicomachus immediately follows his first arithmetical construction of the number 35 with statements (strongly reminiscent of Philolaus⁸) connecting it with *harmonia*; and these statements suggest that it is only this connection that gives it a bearing on matters to do with childbirth. All genesis arises from opposites, and opposites will not come together to compose any integrated whole unless their combination is governed by *harmonia*. 35 is significant in this context because it is “the best of *harmoniai*,” containing all the concordant ratios, and hence is the best catalyst for the integration of opposites, without which no genesis can occur. The success of a foetus’s development, as of any process of generation and coming-to-be, depends on its conformity to musical patterns of organization.

Nicomachus’ comment that 35 “fills out solidity and completion” for the cubes of 2 and 3 hints at a connection between these cubes and Plato’s construction of the World Soul in the *Timaeus*, where they are the final terms of his opening sequences of doubles (1, 2, 4, 8) and triples (1, 3, 9, 27). Cubes are “solid” numbers,⁹ and with the two cubes Plato’s sequences reach completion. Adrastus of Aphrodisias uses the notion of “solid numbers” when explaining why Plato’s quasi-musical system extends so far beyond Aristoxenus’ estimate of the range of human voices or instruments. Aristoxenus, he says, writes “with a view to our own usage,” whereas “Plato has an eye to nature, since it is necessary that the soul, being constituted in accordance with *harmonia*, should advance as far as the solid numbers and be attuned through two means, so that it can pass through the whole of the complete, solid cosmic body.”¹⁰ The Pythagoreans’ debt to the tradition of commentary on the *Timaeus* will become obvious as we proceed.

Nicomachus’ next remark is designed to clarify his statement that 35 “contains all the concordant ratios:” “It is also the sum of the numbers which express all the concordant relations in their lowest terms, 6, 8, 9 and 12.”¹¹ But this “clarification” is very brief and allusive, and the details are set out more fully in the unattributed passage of the *Theol. ar.*:

The progression from the monad is continuous up to the number 6, and music is continuous from the number 6 to the doubles; and from these arises the attunement which extends to all wholes, to the viability of 7-month and 9-month births, and more. For if, following the two life-giving routes, the doubles and the triples, the progression runs by doubles from 6 through 12, or by triples through 18, each interval is filled up in such a way as to include two means, one exceeding and exceeded by the same part of the extreme terms themselves, the other exceeding and exceeded by an

is equal to itself Nicomachus treats it too as a perfect number, though only “potentially” (δυνάμει, contrasted with ἐνεργεία). I am not sure how this superficially Aristotelian qualification is to be understood.

8 44 B 6 DK = frs. 6 and 6a Huffman.

9 Cf. e. g. Plat. *Theaet.* 148b, Arist. *Pol.* 1316a8.

10 Adrastus *ap.* Theon Sm. 63.24–65.8.

11 *Theol. ar.* 63.19–21.

equal number, and acquires the ratios of hemiolic and epitritic intervals; and in each case the generation of life is evident and will naturally come into being. For in the case of the double, 6 and 12, when 8 and 9 are inserted as means, producing the results I have mentioned, the sum of them all together, 35, multiplied by 6, produces the time of 7 months, 210 days; and in that of 6 and 18, when 9 and 12 are inserted as means, creating in turn the same harmonic relation, when added together they produce 45, which when multiplied by 6, as before, produce the number for 9 months, which is 270. Thus both these life-giving lengths of time depend on the number 6, as if it were soul-like. For these reasons, then, Plato's first portion in the generation of the soul is very reasonably expressed as 6, its double as 12, its triple as 18, and so on up to its 27-times multiple, 162. For these are the smallest terms in which the nature of the two means can be seen, together with that of the epogdoic ratio which lies between them.¹²

The last sentence of this extract brings out the relevance of the numbers which Nicomachus mentioned, 6, 8, 9, 12, and of 6, 9, 12, 18 too. In Plato's construction of the World Soul, now treated explicitly as the basis of these ideas, the arithmetic and harmonic means are inserted between adjacent terms in the series of doubles, 1, 2, 4, 8, and the series of triples, 1, 3, 9, 27. But the means cannot be expressed as integers unless the original terms are multiplied by some factor, and 6 is the smallest multiplier that will serve the purpose. In each series, the ratios between all pairs of adjacent terms are the same, and hence the relation between the first two terms in each series, 1, 2 and 1, 3, can exemplify them all. $2:1 = 12:6$, and $3:1 = 18:6$. The means can now be inserted: 8 and 9 are the harmonic and arithmetic means between 6 and 12; and 9 and 12 are the harmonic and arithmetic means between 6 and 18.

Thus when Nicomachus says that the number 35 "contains all the concordant ratios," he means that they are contained in the ratios between the terms of the series 6, 8, 9, 12, and hence, implicitly, in 35, their sum. In Greek theory, the fundamental concords are the octave, the fifth, and the fourth. There are no others within the octave, and all larger concords are formed by combining one of the fundamental concords with an octave or a multiple of the octave. The octave's ratio is 2:1, represented in this sequence by 12:6; that of the fifth is 3:2 = 9:6 = 12:8; that of the fourth is 4:3 = 8:6 = 12:9. The ratio 9:8, the "epogdoic" ratio mentioned at the end of the excerpt, does not correspond to a concord; it is the ratio of the whole tone (or "major second"), defined as the difference between a fifth and a fourth. Thus the structure mapped out by the terms 6, 8, 9, 12 represents that of an octave with two intermediate notes inserted between its boundaries, separated by a tone and marking off the interval of a fourth at each end. This pattern of intervals has impeccable musical credentials, since it gives the basic skeleton

12 *Theol. ar.* 51.4–52.5.

of the octave-structure which Greek theorists regularly treat as paradigmatic; to complete an octave scale one need only add two subordinate notes inside each of the fourths, to form tetrachords. (All the ratios between terms in the sequence 6, 9, 12, 18 are ratios of concords, and $18:6 = 3:1$, the ratio of an octave plus a fifth. But systems spanning an octave and a fifth have no special role in Greek theory or practice.)

The anonymous writer also explains why the number 35 is connected with the viability of 7-month births. It is because 35 multiplied by 6 is 210, the number of days in seven months (of 30 days each). Similarly, when 45, the sum of the terms in the sequence 6, 9, 12, 18, is multiplied by 6, the result is 270, the number of days in nine months. He expresses the significance of the number 6 by saying that it is "soul-like," $\psi\chi\omicron\epsilon\iota\delta\acute{\eta}\varsigma$;¹³ other authors of this period represent it as the number of marriage, $\gamma\acute{\alpha}\mu\omicron\varsigma$, since it is the product of 2 and 3, the first female and the first male numbers, or because it is the first perfect number (as defined in n. 7 above), or for both reasons.¹⁴ In the following passage Aristides Quintilianus calls it "the first *symbolon* of genesis:"

Let us now show how the coming-into-being of rational creatures is also in sympathy with the musical proportions. We shall find that a pregnancy that comes to fruition after seven monthly cycles corresponds to the harmonic ratios. For if we take the number 6, the first *symbolon* of genesis, and put together the sequence of numbers which exhibit in relation to it the harmonic proportions, the epitritic (4:3), the hemiolic (3:2) and the double (2:1), the numbers in our sequence will be the following: 6, 8, 9, 12. If we add these numbers, they make 35, the number in the course of which, so they say, 7-month children are thoroughly formed; and if we multiply 35 by 6 we make 210, equal to the number of 7-month children's daily cycles.¹⁵

Most of this is already familiar from Nicomachus and the anonymous writer in the *Theol. ar.* The only new feature is that the number 35 is given added significance by Aristides' statement that – "so they say" – a child that will be born after seven months is fully formed after 35 days. Who "they" are is unclear; we shall return to the matter in connection with a passage of Proclus.

Aristides turns next to the number 45. At the end of the passage quoted below he relates it to the 9-month period of gestation in the same way as the *Theol. ar.*, but he begins by deriving the number itself in a different way:

Next, if we add to the same terms the rhythmical ratios, equal, double, hemiolic, and epitritic, beginning from the unit, the numbers will be 1,

13 Similarly Nicomachus at *Theol. ar.* 63.21–25: "this musical and most fulfilling number, 35, when formed as a rectangle bounded by two odd-numbered sides, 5 and 7, becomes psychogonic if it is extended into the third dimension by being multiplied by 6, for 6 has the greatest affinity with the soul."

14 See e. g. Anatolius *De dec.* 10.13–18, Proclus in *Remp.* 35.20–22.

15 Aristid. Quint. 3.18, 117.18–118.2 Winnington-Ingram.

2, 3, 4. Of these the unit, which has no number preceding it in order, will stand to itself in equal ratio; 2 stands to 1 in double ratio, 3 to 2 in hemiolic, and 4:3 in epitritic. By adding these numbers together we complete the number 10, and by adding this to 35 we shall make 45, the number in the course of which they say that 9-month children are formed. If we multiply 45 by 6, as this is a perfect number, we shall get the number which belongs to 9-month children, 270; for that is the number of daily cycles after which these children are born alive.¹⁶

Aristides himself may have devised the strategy of reaching 45 by adding the terms of the rhythmic ratios to the original 35. I have found it nowhere else, and it would be entirely characteristic of this author. His principal focus in the *De musica* is of course on music rather than metaphysics, and allusions to rhythms as well as melodic relations come naturally in that context. They also give an air of musical completeness to the profile of the number 45, by representing it as the number in which the melodic and rhythmic ratios are combined. We may note that Aristides is unusual even among specialists on musical theory, in that he devotes as many chapters of technical exposition to rhythemics – which most such writers ignore or treat very cursorily – as he does to harmonics.¹⁷

He next offers an obscure explanation of the non-viability of children born at eight months, a topic best approached through a passage of Proclus, who begins by asserting that the doctor Herophilus rejected the possibility of viable births at 7 months, but that the Pythagoreans accepted it. After a brief excursus on astrological explanations of the viability of 7-month births, which he attributes to Zoroaster, he says that Empedocles also asserted that there are two periods of gestation, describing women as διγῶνοι, mentioning the number of days by which the two periods differ, and asserting that 8-month periods are ἄγωνα, unfruitful.¹⁸ “And that is to be expected” (καὶ εἰκότως), he continues; and here, to explain why Empedocles’ view is entirely reasonable, he adds his exposition of the Pythagorean explanations. He does not attribute them to Empedocles himself; he has independently appended everything from the phrase καὶ εἰκότως onwards, in order to persuade his readers that Empedocles’ position can be defended. Here is the passage.

And that is to be expected. For the primary number of 7-month births, 35, is in the numbers 6, 8, 9, 12, whose extremes contain the double ratio and the octave; and the primary number of 9-month births is in the concordant numbers 6, 9, 12, 18, whose extremes contain the triple ratio. Between

¹⁶ Aristid. Quint. 118.2–16 Winnington-Ingram.

¹⁷ Harmonics occupies chapters 6–12 of Book 1 and rhythemics chapters 13–19. Aristides lists the rhythmic ratios in 1.14 (33.29–34.4 Winnington-Ingram), noting correctly that not everyone accepts the ratio 4:3 as genuinely rhythmic (Aristoxenus does not: see *Rhyth.* 2.35), but subsequently incorporating it into his discussions.

¹⁸ Procl. in *Remp.* vol. 2, 33.9–34.28 Kroll.

them there is no other concordant ratio,¹⁹ so that it is to be expected that since there is no concord, 8-month births are unfruitful. Further, when the numbers from 2 to 8 are added together they make 35, and those from 1 to 9 make 45 (the appropriate origin for 8 is 2, since it is its cube, and for 9 it is 1, since the ennead is a new “one”²⁰), and there is no mean between them. Hence there is no number that makes 8-month births, whether it is considered arithmetically or <geometrically?>. For when 35 is multiplied by 6 it makes the 7-month period and when 45 is multiplied by 6 it makes the 9-month period, but when 40 is multiplied by 6 it makes the 8-month period [*lacuna*] turning back to the original numbers, 7, 9, and 8. Of these the first is made up of the numbers around the right angle of the triangle that will be specified, which are 4 and 3, female and male; the second is made up of the largest numbers, 4 and 5, female and male; and the third is made up of the largest and the smallest, which are 5 and 3, which are both males, and it is therefore to be expected that it is unfruitful. And 6, which is marriage, will be seen in the area [that is, the area of the triangle]. Hence it is to be expected that when it joins male with female it is fruitful, but when it joins males with one another it is unfruitful.²¹

Unlike other writers in this tradition, Proclus is not using the Pythagorean arithmetic primarily to explain why 7-month births are viable, or to justify all the theses which he claims he has found in Empedocles. The words καὶ εἰκότως, “And that is to be expected,” evidently refer only to the last of the allegedly Empedoclean theses, that 8-month periods of gestation are ἄγωνα, unfruitful. Almost everything that follows is designed to show that this is true, and why. Proclus’ arguments are not hard to follow, but they offer an assortment of considerations with no clear connecting thread, perhaps plucked from several different sources, and the arguments used in this context by the other writers seem equally random. Nicomachus says only that infants born at 8 months are “destroyed by natu-

19 The double ratio is that of the octave and the triple ratio is that of the octave plus a perfect fifth. One might expect that the octave plus a fourth, which lies between them, would also count as a concord. But Pythagorean theorists regularly assert that the ratios of concords must be either multiple (mn:n) or epimoric (n+1:n); see for example *Sect. can.* 149.10–24 Jan. A significant consequence is that the interval of an octave plus a fourth, whose ratio is 8:3, cannot be a concord, though it was treated as such by the empirical theorists and in musical practice. Ptolemy disagrees with the Pythagoreans on this point; for his extensive discussion see *Ptol. Harm.* 1.6, 13.1–23 Düring, and cf. 1.7, 15.18–16.12. Taking a cue from Plato at *Resp.* 531c1–7, one might argue that Proclus refers here to concordant ratios, not to the ratios of concordant intervals, and that the criterion of concordance between two numbers is not necessarily identical with that of concordance between two notes. But this defence is open to serious objections, and in any case Proclus is merely rehearsing what he found in Pythagorean musicological texts.

20 Proclus treats the word ἐννέα, 9, as if it were ἐννέον, “new 1.” I have not found the original source of this fanciful etymology.

21 Procl. in *Remp.* vol. 2, 34.28–35.22 Kroll.

ral necessity," διαφθείρεσθαι... ὑπὸ τῆς φυσικῆς ἀνάγκης,²² without any attempt to explain why their destruction is inevitable. Aristides Quintilianus makes one brief and enigmatic remark, immediately after deriving the number of days involved in 7-month and 9-month births:

We can see that 8-month children are produced, through their participation in the smallest ratios, but because they do not participate in all of them they are never born alive.²³

I have found no satisfactory way of interpreting Aristides' statements about participation in the ratios, but the points he has in mind are clearly not identical with any of those mentioned by Proclus.

The writer of the *Theol. ar.* seems positively embarrassed at the situation in which he finds himself. In his short section on the number 8,²⁴ he first records a succession of its attributes all of which evoke its special excellence, and some of them assort very awkwardly with the doctrine about 8-month children. The number 8, he says, is *panharmonios*, containing all harmonic relations within itself (73.5—8); and it is "Cadmeian," explained as an allusion to Harmonia the wife of Cadmus (73.8—10). In the old days, he continues, people called this number "mother," perhaps because Rhea is the mother of the gods, "and the number 2 was previously shown to belong to Rhea seminally, the number 8 in extension."²⁵ One would therefore expect 8 to have a very positive relation to childbirth, and yet it does not. Perhaps, the writer tentatively suggests, it is because of the connection with Rhea that this number is ἀλιτόμηνος, literally "missing the month," and childbirth after eight months is fruitless and untimely:

Concerning Rhea, people tell the tale that Kronos obliterated the children born from her, or so the story goes,²⁶ and concerning the number 8 they say that the pains of labour at eight months are fruitless, and for that reason are called "missing the month."²⁷

The principal material in all these writers' accounts of 7-month and 9-month births derives from reflections on Plato's construction of the World Soul in the *Timaeus*; and this helps to explain the lack of consistency in their explanations of the non-viability of 8-month infants. There was nothing helpful in the *Timaeus*, and they were forced to extemporize. Hence there is no orthodox tradition of explanations in connection with 8-month births, as there is for births at 7 and 9 months. Two other features of the writers' arguments must also originate in the

²² *Theol. ar.* 63.4–5.

²³ Aristid. Quint. 118.16–18 Winnington-Ingram.

²⁴ *Theol. ar.* 72.1–74.22.

²⁵ For the connection of Rhea with the number 2 see *Theol. ar.* 14.6–9. The phrase "in extension," κατ' ἐπέκτασιν, refers to the fact that 8 is the cube of 2.

²⁶ Hes. *Th.* 453–467.

²⁷ *Theol. ar.* 74.15–19.

post-Platonic period. One is their treatment of the number 6 as a perfect number and as representing γάμος, marriage. In the early tradition, the number associated with γάμος is not 6 but 5, the sum rather than the product of the first male and the first female number;²⁸ and, as Burkert noted, the Euclidean conception of a perfect number which our authors use in describing the number 6 is alien to pre-Aristotelian Pythagoreanism, which had its own quite different notion of arithmetical perfection, attributed only to the number 10. The number 6 was assigned no particular significance.²⁹ Secondly, the ratios of the octave and its constituent minor concords had been known since the fifth century, but there is no trace of their expression through the numbers 6, 8, 9, 12 until the second half of the fourth. These numbers first appear in the *Epinomis* attributed to Philip of Opus, published, we suppose, around 345 BC.³⁰ From the first century AD onwards they appear frequently, both in musicological texts and in philosophical writings of a Platonist or Pythagorean type, often (not always) in contexts explicitly connected with the *Timaeus*. We can conclude that the people who first devised the explanations of the viability of seven-month and nine-month infants took the essential components of their explanations from Hellenistic discussions of the Platonic World Soul, and that their originality lay only in their use of this material to account for supposed facts about periods of gestation.

3 Medicine and natural science

The opinions of medical specialists or natural scientists are hardly mentioned in the texts we have been examining. But there is one remarkable exception. The passage I quoted earlier Proclus ends with the following statements:

The preceding arguments are based on numbers. But the *anatomikoi* also mention the distinctions found in these numbers. They say that when the sperm has frothed (ἀφρωθῆ) for a period of 6 days, during the next 8 days it is transformed into blood, during the next 9 it becomes flesh-like, and during the remaining 12 days it acquires form; and when it has been progressively organized in this way it is born at 7 months. And in the other cases [i. e. those leading to birth at 9 months], similarly, it receives the same form in periods of 6, 9, 12 and 18 days. Thus the number 6 is their common origin, since it is this that makes each of them.³¹

The anonymous writer in the *Theol. ar.* must be referring to the same doctrines in an allusion to “the 6 days in which the seed froths and germinates;”³² and Nicomachus may have had a comparable theory in mind when he mentions “the 6 days after which it has been shown that the fluid-containing membrane first be-

28 Arist. *Metaph.* 1078b23 with Alex. *Aphr. in Metaph.* 39.8–13.

29 Burkert 1972, 431; Arist. *Metaph.* 986a8–9.

30 [Plat.] *Epin.* 990d–991b.

31 Procl. *in Remp.* 35.22–36.2 Kroll.

32 *Theol. ar.* 52.7–8.

comes visible.”³³ As we saw earlier, Aristides tells us that 35 is the number of days “in the course of which, so they say, 7-month children are thoroughly formed.”³⁴ The number 35 fits with the theory that Proclus records, as does the fact that it is only children due to be born at 7 months that are “thoroughly formed” at 35 days, and Aristides’ statement, like that of the anonymous writer, is almost certainly a partial reflection of the theory set out by Proclus.

The theory or theories reported in these passages, and especially in Proclus’ extended account, are evidently derived from medical and specifically gynaecological sources, whose authors must have claimed that they were based on empirical observation. Nicomachus seems to point to scientists of the fourth and third centuries BC, asserting that, according to Strato of Lampsacus, Diocles of Carystus, and “many other medical experts,”³⁵ by the thirty-fifth day the embryo of a child that will be born at 7 months is fully formed. They say that it is very small, “about the size of a bee,” but that it is “clearly articulated, so that the head and neck and trunk and limbs in general are visible on it.” So far they agree perfectly with Proclus’ *anatomikoi*. But in other respects they describe the stages of formation in very different terms, and they were certainly not responsible for attaching the Pythagorean numbers to the various stages. The stages they identify are of 7 days each. In 5 of them a 7-month child is fully formed; in 6 a 9-month child is formed, but only if it is female; for a 9-month male to be formed takes 7 such periods, 49 days.³⁶ There are in fact no surviving texts which assign the Pythagorean numbers of days to the stages of foetal development except in the Pythagorean (or Platonist) sources themselves,³⁷ and the theory is so carefully tailored to fit the arithmetical and musicological doctrines we have been examining that it cannot have been prompted by observations alone. The number of days assigned to each of the stages of development matches the Pythagorean sequence 6, 8, 9, 12, too perfectly to be coincidental.

Platonists of the imperial period were interested in medical issues, and included a number of trained medical specialists.³⁸ Embryology was a subject to which they paid particular attention,³⁹ since it has a direct bearing on the relation between the developing body and the soul by which it is animated. The evidence

33 *Theol. ar.* 64.7–9. I shall suggest shortly that this theory is not only comparable but identical with the one evoked by the anonymous writer.

34 Aristid. Quint. 117.27–28 Winnington-Ingram.

35 Strato belongs to the third century BC, and Diocles probably to the fourth, though the matter is controversial: see von Staden 1989, 44–46.

36 *Theol. ar.* 62.8–63.1 = Diocl. fr. 45a van der Eijk.

37 My thanks to Vivian Nutton, Philip van der Eijk, James Wilberding, and Svetla Slaveva-Griffin, with whom I have corresponded about this issue. I am very grateful for their help.

38 This is confirmed, with copious references to the ancient sources, in Wilberding 2014.

39 My thanks to James Wilberding for generously allowing me to see a pre-publication copy of the article mentioned in n. 38 above and a chapter of his forthcoming monograph on Neoplatonist embryology. The fact that such a monograph can be written at all bears witness to the amount of relevant material available.

suggests, however, that even when the investigators had some expertise in medical disciplines, their work was based more on book-learning and philosophical reflection than on first-hand empirical research. In the present case we can probably identify the pair of treatises which gave Proclus' *anatomikoi* the quasi-factual foundation for their theses, the Hippocratic *De genitura* and *De natura pueri* (dated by Jouanna⁴⁰ around the end of the fifth century BC), especially the latter.⁴¹ We know that this essay attracted attention in Platonist circles from its citations in the epistolary treatise *Ad Gaurum*, nowadays generally attributed to Porphyry.⁴²

There is no exact counterpart in the Hippocratic treatises of Proclus' initial 6-day phase in which the semen "froths." But at the beginning of *Genit.* (vol. 7, 470 Littré) it is described as frothing as it passes through the body during intercourse and ejaculation; and the formation of the fluid-containing membrane whose development Nicomachus assigns to the first 6 days⁴³ is described at *Nat. puer.* 12.37–45 (488),⁴⁴ and frequently mentioned as the text continues. Perhaps Proclus' source conflated the Hippocratic writer's allusions to frothing with the detailed description of an aborted 6-day embryo given at *Nat. puer.* 13.1–22 (488–492). Be that as it may, the treatise provides almost exact counterparts of the other three stages in Proclus' account. At 14.1–9 (492) the contents of the membranaceous sac are enriched with blood (though the blood is derived from the mother, and is not a transformation of the semen); at 15.1–2 (492) the blood is transformed into flesh; and at 17.1–9 (496–498) it is articulated into organs and limbs. The passages of Philoponus cited in n. 42 above apparently reflect the same sequence.

But if the sequence of stages listed by Proclus originates in the Hippocratic essays, the numbers of days attached to each of them does not. The fact that the aborted embryo discussed in *Nat. puer.* was 6 days old is purely accidental. It just happens to have been at that moment that the abortion was induced; and the writer assigns no particular lengths of time to the individual stages he describes. He specifies the maximum number of days that "usually" elapse before the foetus is fully formed, but the numbers are different for females and males (42 for the former, 30 for the latter).⁴⁵ Neither of them corresponds to the Pythagorean numbers. We are bound to conclude that Proclus' *anatomikoi* were combining two quite different modes of enquiry or forms of understanding, one based on the arithmetical and harmonic analysis of the soul, the other derived from an ancient

40 Jouanna 1999, 392.

41 The two essays are closely connected, but there is little evidence to support the view that they were originally parts of the same treatise. See Lonie 1981, 43; Müller 1998, 201–221.

42 See especially 10.3, 46.14–47.5 Kalbfleisch. Relevant aspects of the Hippocratic theory recur in several passages of Philoponus, notably *Aet. mund.* 374.19–23 Rabe, *In Cat.* 201.9–13 Busse, *In Ph.* 157.32–158.1, 322.9–14 Vitelli.

43 *Theol. ar.* 64.7–9.

44 References are by section and line numbers of Littré's edition, followed (in brackets) by the page numbers of his vol. 7.

45 *Nat. puer.* 18.1–5.

record of medical experience; and they combined them by the simple expedient of superimposing the former on the latter.

Hippocratic treatises were probably also the Pythagoreans' source for their central thesis, that 7-month children are viable but 8-month children are not (the doctrines are set out in detail in *De septimestri partu* and *De octimestri partu*). No post-Aristotelian medical writers say such things without significant qualifications. Almost invariably they agree with Aristotle's contention that 8-month children sometimes survive, though not often.⁴⁶ Like him, they accept that 7-month children may also live, but usually stress, as he does, that birth at this time is also very risky. Some of them, for instance Soranus, the most eminent gynaecologist of antiquity, describe in detail the problems that affect both the mother and the foetus at these times.⁴⁷ But their explanations are strictly biological. They have nothing in common with the Pythagorean analyses, whose inflexible numerical formulae can admit no exceptions, and will not even allow them to recognize that infants born at seven months often fail to survive.

We must consider one further possible connection between the Pythagorean theories and texts in the Hippocratic corpus. Burkert thought that certain passages in the latter are themselves borrowed from early Pythagorean musical theory,⁴⁸ and the Hippocratics certainly did use musical ideas and analogies. One of them asserts that if developing embryos achieve the right attunement, which has three concordant intervals, the fourth, the fifth, and the octave, they will live and grow. But "if they do not achieve the attunement, and the low do not harmonize with the high in the interval of the fourth, or of the fifth, or in the octave, then the failure of one makes the whole scale of no value."⁴⁹ One could imagine a Pythagorean saying something like this, but nothing in it is peculiarly Pythagorean; and Burkert was mistaken in thinking that the writer's use of the terms *syllabe* for the fourth and *di'oxeia* for the fifth demonstrate a link with Philolaus; he too uses those terms, but they are not the special preserve of Pythagorean theorists.⁵⁰ The treatise *De septimestri partu* contains a second key passage. The author has been explaining that the doctor must pay special attention to his pregnant patient on certain days, identified by numbers. But here too there is nothing Pythagorean about the numbers in question, which include all the odd numbers, though with special emphasis on the number 7, and include also the fourteenth, twenty-eighth and forty-second day among the even numbers. In the same context we find the following intriguing statement: "We must consider the matter like this: by triads

46 In Egypt, according to Aristotle, 8-month births are normal (*Hist. an.* 584b6–14). For his overall position on these issues see *Hist. an.* 584a33–b25, *De gen. an.* 772a37–b12.

47 Soranus, *Gyn.* 1.55–46.

48 Burkert 1972, 272–274.

49 Hippocr. *Vict.* 1.8 (Burkert's translation).

50 See Porph. in *Harm.* 96.21–97.8 Düring, which first cites sources attributing these usages to the Pythagoreans, but continues with (probably correct) explanations associating them with early musicians in general.

and tetrads, the triads being conjoined, and disjoined two by two" (*Septim.* 9). Burkert seems to have misconstrued this, supposing that the tetrads are sequences of numbers, again designating days, distinct from and parallel to the triads. But this is not what is meant. Triads are conjoined, but it is then the triads themselves that are to be disjoined, two by two. That is, each pair of conjoined triads is to be disjoined from another such pair; and a tetrad is the combination of the four triads put together in this way. The arrangement described is clearly a musical structure. It corresponds exactly to the regular pattern of organization which we find in musical theorists of all persuasions, in which a pair of conjoined tetrads, each of which contains a "triad" of three intervals, lies on either side of a disjunction. There is nothing exclusively Pythagorean about it.

If the writers who devised the *Timaeus*-based explanations took the theories they were explaining from these Hippocratic texts, they would have found no authentically Pythagorean doctrines in them, but they would have found numerical and musical conceptions which had recognizable affinities with their own. These texts not only provided them with the supposed facts that called for explanation (the more nuanced later medical tradition being wholly ignored), but also gave hints about the way in which the issues might be approached in terms appropriate to their own manner of thought, through arithmetical calculations involving symbolically significant numbers, allied to musical theory in the mathematical style that the early Pythagoreans had pioneered. In drawing on Plato's account of the World Soul for the basis of their explanations, they assimilated the ancient medical doctrines to a system of thought concerning life and the soul which was a cornerstone of their metaphysics. By integrating them with the patterns of cosmic and psychic order revealed by the most elevated kinds of philosophical thinking, they transformed the quasi-empirical wisdom of the Hippocratics into knowledge of a different and loftier sort, as an element within a rationally coordinated universal *episteme*.

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Iamblichus on Pythagorean Dietetics

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In Chapter 29 of his *On the Pythagorean Way of Life* Iamblichus writes that according to his sources the Pythagoreans (φρασι τοὺς Πυθαγορείους) honoured most among all the sciences music, medicine, and divination. He summarizes their contribution to medicine as follows:

τῆς δὲ ἰατρικῆς μάλιστα μὲν ἀποδέχεσθαι τὸ διαιτητικὸν εἶδος καὶ εἶναι ἀκριβεστάτους ἐν τούτῳ. καὶ πειράσθαι πρῶτον μὲν καταμανθάνειν σημεία συμμετρίας πονῶν τε καὶ σίτων καὶ ἀναπαύσεως, ἔπειτα περὶ αὐτῆς τῆς κατασκευῆς τῶν προσφερομένων σχεδὸν πρῶτους ἐπιχειρήσαι τε πραγματεύεσθαι καὶ διορίζειν. ἄψασθαι δὲ [χρῆ] καὶ καταπλασμάτων ἐπὶ πλείω τοὺς Πυθαγορείους τῶν ἔμπροσθεν, τὰ δὲ περὶ τὰς φαρμακείας ἦττον δοκιμάζειν, αὐτῶν δὲ τούτων τοῖς πρὸς τὰς ἐλκώσεις μάλιστα χρῆσθαι, <τὰ δὲ> περὶ τὰς τομάς τε καὶ καύσεις ἥκιστα πάντων ἀποδέχεσθαι.¹

And of medicine they [i. e. the Pythagoreans] especially approved the kind pertaining to diet, and in this they attained great precision, and first tried to discover signs of due proportion in exercises, foods, and rest. Therefore they were more or less the first to attempt to treat systematically and to lay down rules about the preparation of foods. The Pythagoreans used unctions and poultices more than their predecessors, but approved less of

1 *Vit. Pyth.* 29 (§ 163–164), ed. and trans. Dillon / Hershbelle (translation slightly modified). The whole passage reappears almost verbatim in chap. 34 (§ 244), with one minor variation: Iamblichus speaks there about due proportion in drinks (ποτῶν), foods, and rest. The variation πόνων / ποτῶν in the two parallel passages is certainly not intentional and most probably indicates a corruption of the text. Some editors leave both variants as transmitted (Dillon / Hershbelle 1991), some emend πόνων at § 163 to ποτῶν on the basis of the parallel in § 244 (Deubner / Klein 1975; Romano 2006; Brisson / Segonds 2011), others the other way round (von Albrecht *et al.* 2002). Convincing arguments in support of reading of πόνων over ποτῶν in both these passages have been put forward by Roselli 1997. For the purposes of my argument, I will discuss Iamblichus' report with the reading πόνων as it appears in Ch. 29 (§ 163). It should also be remarked that in my analysis I omit the rest of § 164, in which Iamblichus writes (trans. Dillon and Hershbelle): "They also used incantations for some illnesses. And they believed that music contributed greatly to health if someone used it in proper ways. They also used selected verses of Homer and Hesiod for the improvement of the soul." These topics, which are not paralleled in *On Regimen* and therefore irrelevant to my argument, are discussed in the contribution of S. Kouloumentas to this volume.

drugs and used these mostly for ulcerations; they approved surgery and cautery least of all.

As recognized by modern commentators on this passage,² the idea that health depends on due proportion between food and exercise, identified by Iamblichus as one of the Pythagorean contributions to the field of dietetics, is attested in the Hippocratic *On Regimen*, an anonymous treatise written in the late fifth or early fourth century BCE which has been transmitted as part of the so-called *Corpus Hippocraticum*.³ There are various ways to interpret the connection between the Hippocratic text and Iamblichus' report. De Vogel, for instance, presupposes that the Hippocratic author "was influenced by the Pythagoreans in his theory of a συμμετρία of σίτα and πόνοι, as he was elsewhere."⁴ This interpretation conforms to the traditional and still relatively popular view according to which Pythagoreans played a crucial role in the early history of dietetics.⁵ Based on this assumption, it would be reasonable to believe that the Hippocratic author, who clearly acknowledges his debts to previous dietetic tradition,⁶ draws on the same Pythagorean conceptions as are attested by Iamblichus. A. L. Peck, to give another example, therefore suggests that the most important concepts in the Hippocratic account, such as mixture (κοῖσις), balance, or harmony, "had their origin among Pythagoreans, and especially among those of them who studied medicine, and that department of it which they held to be of singular importance, dietetics."⁷

The aim of my chapter is to challenge this Pythagorizing tendency by focusing in detail on the concept of symmetry and related topics in *On Regimen* and in Iamblichus' report. I shall proceed as follows. Firstly, I will make the case that the close parallels between the two texts suggest that Iamblichus' report draws (probably not directly, but rather through an intermediate source or sources)⁸ on

2 Wöhrle 1990, 46; Roselli 1997, 106–109; Brisson / Segonds 2011, 200.

3 For a discussion of the date of the treatise see Joly / Byl 2003, 44–49.

4 De Vogel 1966, 234.

5 Similar views can be found in studies on the history of ancient medicine in general (Jones 1961, 1 ff. and 44; Schumacher 1963, 53–66 and 81–85; Kudlien 1967, 36 ff. and 54 ff.), or specifically on Pythagorean medicine (De Vogel 1966, 232–244; Zhmud 2012, 347–379), on history of dietetics (Wöhrle 1990, 35 ff.), or in modern commentaries on the Hippocratic *On Regimen* (Palm 1933, 62–68 and 110 ff.; Joly 1967, xi–xiii; Joly / Byl 2003, 46–52). For a more cautious, but still positive, assessment of the role of the Pythagoreans in the early history of dietetics, see Schiefsky 2005, 48–49: "And though it is not implausible that the early Pythagoreans accorded great importance to dietetics, given their concern with leading a particular way of life and with principles such as number and harmony, the actual evidence for this is rather thin; they surely had no monopoly on the field."

6 *Vict. I.1* (Joly / Byl 122,7–21), cited and discussed below. In the case of *On Regimen* I refer to the revised CMG edition, while all other Hippocratic references in this chapter will be given to volume and page (and line, where necessary) in Littré 1839–1861 (hereafter L.).

7 Peck 1928, 124.

8 Already Diels 1903, 292, who also reads the manuscript's πόνων at § 163, suggested Aristoxenus as the source of this passage and included it among the fragments of the *Pythagorean Precepts* of Aristoxenus. Some scholars agree with this view (Edelstein 1943, 20 n. 49; Dil-

this particular Hippocratic text, a hypothesis that has not been discussed before, as far as I know. Secondly, I will show that nothing confirms, in either Iamblichus' passage or *On Regimen* or any other extant piece of ancient evidence, that the concept of symmetry between food and exercise had been employed prior to *On Regimen*. To the contrary, I will argue that this concept represents an original and remarkably influential contribution by the author of *On Regimen* to the field of dietetics. And finally I will note some consequences of this reading for the reconstruction of the early history of Pythagorean medicine.

Let me start with a few remarks concerning ancient Greek dietetics in general. The semantic field covered by the term *diaita* is very broad and therefore needs cautious handling. Any restrictions concerning human life can be labelled with this expression but not every kind of moderation has to do with health in the strict sense. There is no doubt, for instance, that ancient Greek religious rituals were often accompanied by restrictions concerning food, drink, sleep, or sexual activities, without the aim of achieving a healthy condition.⁹ This consideration is extremely important when evaluating the evidence for the Pythagorean "way of life" or the specific regimen of competitive athletes, which has often been treated in modern scholarship as evidence for the roots of ancient Greek dietetics.¹⁰ Accordingly, in this chapter I focus solely on medical dietetics, as I shall call it for the sake of clarity, which "was a relatively late development in Greek medicine."¹¹ There is hardly any reliable evidence for a theoretically grounded medical dietetics before the second half of the fifth century BCE, when the first Hippocratic treatises on the topic were written¹² and when "treatment of internal diseases was based on a dietetics which was itself based on physical theories about elements and their qualities."¹³ This new dietetic approach, most typically consisting of foods, drinks, gruels,¹⁴ baths, and therapeutic walks, is now and again explicitly distinguished from other forms of therapy, such as purging of sputum, evacuation of the bowels, venesection, and purges.¹⁵ Dietetics is often presented as an alternative to pharmacological therapy;¹⁶ though *pharmaka* are occasionally pre-

Ion/Hershbelt 1991, 239 n. 6, Timpanaro Cardini 1958, 286), others are more sceptical (for instance Wehrli 1967, 58, see also Zhmud 2012, 355 n. 32).

9 See Wöhrle 1990, 22–31.

10 For this view and references to previous scholarship see Zhmud 2012, 347–379.

11 Lonie 1977, 237. See also van der Eijk 2005, 114, and Jouanna 2012, 137–153.

12 For an approximate date of the Hippocratic treatises, see Jouanna 1999, 373–416.

13 Lonie 1977, 236.

14 As Lonie's 1977 analysis reveals, the triad of solid food (*sitia*), slops or gruels (*rhupemata*), and drinks (*pota*) probably belonged to an older tradition on which the new theoretically based dietetics were built.

15 *Progn.* 15 (L II,146–148). In *Morb.* I.14 (= L VI.164) blood-letting is clearly distinguished from regimen; the author of the *Appendix to Regimen in acute diseases* distinguishes between regimen, fomentation, and drugs (*Acut. (sp.)* 56–57 = LII,508–510).

16 E.g. *Mul.* I,11 (L VIII,42), I,17 (L VIII,56), I, 66 (L VIII,136), II,115 (L VIII,248–250), II,118 (L VIII,254–258); *Aff.* 22 (L VI,232–234); *Loc. Hom.* 23 (= L VI,314); *Nat. Hom.* 9 (L VI,54).

scribed within a dietetic treatment,¹⁷ they are avoided where possible.¹⁸ Accordingly, when Iamblichus reports that “the Pythagoreans used poultices more than their predecessors, but approved less of using drugs” and that “they approved of surgery and cautery least of all,” he is indicating nothing specifically “Pythagorean” but is rather describing common features of the dietetic approach in general.¹⁹

More peculiar is his claim that the Pythagoreans tried to identify “the signs of due proportion in work, foods, and rest” (σημεῖα συμμετρίας πόνων τε καὶ σίτων καὶ ἀναπαύσεως), which deserves closer inspection. It was a standard procedure in ancient medicine to pay attention to perceivable signs which indicate the condition of the human body, and the author of *On Regimen* is no exception. Though he rarely uses the expression σημεῖα,²⁰ he often speaks about things “indicating” (σημαίνει) healthy or pathological conditions, especially in the fourth book, which is devoted to diagnosis from dreams. In the other books of the treatise, and most notably in Book 3, he usually employs the term τεκμήρια, and specifically the signs of imbalance between food and exercise.²¹

This brings us to the concept of balance expressed as symmetry. The adjective σύμμετρος or the adverb συμμέτρως are quite common throughout the Hippocratic corpus,²² which suggests that the principle of moderation and due measure was deeply embedded in Greek medical thought. But, interestingly enough, the substantive συμμετρίη, which is the key term in later dietetic accounts, as attested for instance by Galen’s works on the topic, appears only in *On Regimen* and in no other medical text that can be dated to the classical period.²³ This, I believe, is a clear indication that Iamblichus’ report may be drawing on this particular dietetic account. But there seems to be one dissimilarity: the author of *On Regimen* speaks specifically about the symmetry between food and exercise, while Iamblichus (or his source) adds a third factor, namely rest (ἀνάπαυσις). Rest (or inaction)²⁴

17 E.g. *Nat. Hom.* 9 (L. VI,54); *Aff.* 22 (L. VI,234); *Morb.* II,72 (L. VII,108–110).

18 *Vict.* III,67 (Joly / Byl 194,10–15). See also *Aff.* 20 (L. VI,230), or Plato (*Resp.* 459c) who views dieticians as second-rate specialists compared to the more enterprising and venturesome physicians curing by drugs.

19 Contra De Vogel 1966, 234.

20 *Vict.* I,22 (Joly / Byl 140,14), IV,89 (Joly / Byl 224,24).

21 E.g. *Vict.* III,70 (202.30), III,72 (204.11), III,85 (Joly / Byl 216,27–30).

22 E.g. *Acut.* (Sp.) 18 (L. II,482,8); *Fract.* 8 (L. III,444,9); *Art.* 78 (L. IV,316,2); *Mochl.* 38 (L. IV,382,15 and 386,5); *Aph.* V,62 (L. IV,556,1); *Prorrh.* II,11 (L. IX,30,19); *Superf.* 8 (L. VIII,482,8); *Gland.* 7 (L. VIII,562,6).

23 Apart from *On Regimen* (*Vict.* I,2 = Joly / Byl 124,11; I,32 = 148,31; II,66 = 190,26; III,67 = 194,3; III,83 = 216,4), among the Hippocratic writings it is attested only in *Off.* 25 (L. III,334,7) and *Ep.* 16 (L. IX,346,12), which are both most probably of Hellenistic or even later origin. Compare Chrysippus’ definition of health as the good mixture (εὐκρασία) and proportion (συμμετρία) of hot, cold, dry, and moist in the body (Galen, *PHP* 5.2 = De Lacy 300.27–30, see also Chrysippus, fr. 471, ed. Arnim).

24 The term ἀνάπαυσις is not uncommon in Hippocratic treatises, e.g. *VM.* 11 (L. I,594,12); *Acut.* 12,2; *Aph.* 4,13 (L. IV,506,2); *Nat. Hom.* 9 (L. VI,52,7) and 15 (L. VI,66,19); *Loc. Hom.* 1 (L. VI,276,8). The author of *On Regimen* occasionally employs the verb ἀναπαύειν (*Vict.* I,15 = Joly / Byl 138,1 and III,68 = 196,34), although he prefers to speak about ῥαθυμίη (*Vict.* I,36 =

is taken in the Hippocratic treatise to be the absence of exercise which, in the end, affects the body in a similar way as food does, that is it moistens, cools, and weakens the body,²⁵ and so it can be recommended instead of (or together with) food, especially in cases where an excess of exercise needs to be counterbalanced. Accordingly, it is quite appropriate to epitomize the essence of the Hippocratic theory as a symmetry between exercises on the one hand and foods together with inaction on the other.²⁶

As for the highest precision in the field of dietetics, which Iamblichus ascribes to the Pythagoreans, a number of Hippocratic treatises attest remarkable concern with the exactness appropriate to dietetic diagnosis and therapy,²⁷ although they bear no signs of Pythagorean influence. The author of *On Ancient Medicine*,²⁸ for instance, who advocates dietetics based on empirical experience, stresses the necessity of finding some “measure” or “standard” (μέτρον) such as “weight” (σταθμόν) or “number” (ἀριθμόν), and in relation to that he also mentions the difficulty in attaining exactness through sense perception (αἴσθησις).²⁹ In *On Regimen* we find numerous passages discussing the degree of *akribeia* attainable in dietetic diagnostics, among which the following in Ch. 2 deserves special attention:

If it were possible to discover for the constitution of each individual the due measure (μέτρον) of food and the right amount (ἀριθμός σύμμετρος) of exercise, with no inaccuracy either of excess or of defect, an exact dis-

Joly / Byl 156,24; IV,89 = 222,15; IV,93 = 230,10; III,72 = 204,13; IV,93 = 228,25; III,85 = 216,31; IV,89 = 222,25; IV,89 = 222,29; IV,90 = 228,2).

25 Inaction (ῥαθυμία) and exercise (πόνος) are taken in the dietetic theory of *On Regimen* as opposite factors having opposite effects on the body, as we can read for instance in *Vict.* II,60 (Joly / Byl 182,26): “Inaction moistens and weakens the body; for the soul, being at rest, does not consume the moisture of the body. But exercise dries and strengthens the body.” Ραθυμία ὑγραίνει καὶ ἀσθενὲς τὸ σῶμα ποιεῖ· ἀτρεμίζουσα γὰρ ἡ ψυχὴ οὐκ ἀναλίσκει τὸ ὑγρὸν ἐκ τοῦ σώματος· πόνος δὲ ξηραίνει καὶ τὸ σῶμα ἰσχυρὸν ποιεῖ. See also *Vict.* III,85 (Joly / Byl 216,31). Accordingly, the effect of rest is that of moistening, weakening, and also cooling, as we read in the following passage. When the author wants to give reasons for the idea that males of all species are warmer and drier and females moister and cooler, he claims that “females use a regimen that is moister and less strenuous” *Vict.* I,34 (Joly / Byl 150,27): τὰ δὲ θήλεα ὑγρότερα καὶ ψυχρότερα διὰ τόδε... τὰ δὲ θήλεα ὑγροτέρησι καὶ ῥαθυμοτέρησι τῇσι διαίτησι χρέονται.

26 As was pointed out to me by S. Kouloumentas, a remarkable parallel can be found in Iamblichus’ detailed description of the Pythagorean way of life in Ch. 21 (§ 95–100), where he says that besides walks, baths, wrestling, and other exercises, the Pythagoreans were also concerned with a balanced ἡρεμίαν τε καὶ ἡσυχίαν, which no doubt corresponds to ἀνάπαυσις in § 164.

27 For example *Acut.* 6 (L II,268), *Epid.* III,3,16 (L III,102), *Aph.* I,4–5 (L IV,460–462).

28 Although several earlier scholars (e. g. Peck 1928, 113–124, Wellmann 1930, Wanner 1939, 54 ff.) argued that the author of *On Ancient Medicine* was writing to defend a specifically Pythagorean tradition of dietetics, recent scholars have been rather sceptical about this assumption (Schiefsky 2005, 48–49; Jouanna 1990, 22–34).

29 *VM*, 9 (L I,588–590).

covery of health for men would have been made (εὕρητο ἂν ἡ ὑγείη τοῖσιν ἀνθρώποισιν ἀκριβῶς).³⁰

The author seems to be seeking here almost mathematical exactness, which “has been attained by nobody,”³¹ as he claims, and which cannot be matched in his own account either.³² Accordingly, he adopts a more stochastic approach, which is said to be easy (ῥηϊδιον)³³ and which consists of the diagnosis of excess, either in food or exercise, moistness or dryness, hot or cold, and then gradual restoration of health by counterbalancing the surplus by its opposite.³⁴ On the whole one can conclude that discussions concerning *akribēia* were a commonplace in the dietetic tradition attested in the Hippocratic treatises, although the precision with which this question is treated in *On Regimen* is rather exceptional.

To sum up, it is reasonable to consider the possibility that all the main characteristics of Pythagorean dietetics listed by Iamblichus in the passage under consideration were derived from one single source, namely from *On Regimen*, whose author not only promotes dietetics, but also attains great precision in this field, aims to discover signs of due proportion in exercises, foods, and rest, and presents “more or less the first” attempt to treat the subject systematically. Given this assumption, it is obvious to ask why Iamblichus (or anyone before him) would have chosen this and no other dietetic account as representative of Pythagorean dietetics. In what follows I shall try to suggest a few possible reasons.

Firstly, among the Hippocratic treatises and other extant medical texts from the classical era that discuss dietetics, *On Regimen* is not only the longest and most elaborated and systematic one, but it is also the best candidate to be identified as a Pythagorean text, especially when post-Platonic criteria are applied. Here I mean, for instance, the prominent role played by the concept of correspondence (*mimesis*), which underlies the whole account of the nature of man in *On Regimen*. This includes the theory of three musical intervals (the fourth, the fifth, and the octave) employed in the embryological account (*Vict.* I,8) and corresponding with the tripartite structure of the cosmos, marked out by the spheres of the stars, the Sun and the Moon (*Vict.* IV,89);³⁵ the notion of everlasting and transmigrating souls, which seems to be implied in the dietetic account;³⁶ or the fact that, alongside various dietetic procedures, prayers to gods are also recommended in this and no other extant medical text of the time (*Vict.* IV,89–90).

Further possible evidence that could support the assumption that *On Regimen* represents a specifically Pythagorean approach to dietetics can be inferred from

30 *Vict.* I,2 (Joly / Byl 124,17–20). See also *Vict.* III,67 (194,1–16; 124,24) .

31 *Vict.* III,67 (Joly / Byl 194,10–16).

32 Reasons for this are discussed in detail in *Vict.* I,2 (Joly / Byl 124,21–24).

33 *Vict.* III,66 (Joly / Byl 190,27).

34 See *Vict.* III,81 (Joly / Byl 212,27–214,11); and *Vict.* III,83 (Joly / Byl 216,5–15).

35 See Bartoš 2014; Bartoš 2015, 132–138.

36 See Bartoš 2009; Bartoš 2015, 212–217.

the parallels with Plato's *Timaeus*. In the section devoted to the diseases of soul Timaeus strongly recommends moderating and preventively maintaining the health of both body and soul by regimen (διαίταις) "to the extent one is free and has the time to do so (καθ' ὅσον ἂν ἡ τῷ σχολή)." ³⁷ He concludes with the idea that "there is but one way to care for everything (θεραπεία δὲ δὴ παντὶ παντὸς μία)," which he specifies as providing to each individual the proper "nourishment and motions" (τροφὰς καὶ κινήσεις). ³⁸ This is only another way to express the key idea of *On Regimen* concerning health as a symmetry between food and exercise (or the symmetry between fire, which provides movement, and water, which provides nourishment). ³⁹ Plato's *Timaeus* also defines health as a symmetry, though in comparison with *On Regimen* he innovates by introducing the symmetry between soul and body, ⁴⁰ which serves the specific goals of his ethical dietetics. ⁴¹ However, seeing these and many other close resemblances between the *Timaeus* and *On Regimen*, it would not be difficult to come to the conclusion that Plato, "the greatest of the Pythagoreans," ⁴² and the author of *On Regimen* both represent a specifically Pythagorean approach to dietetics.

And finally, in the Pythagorean collection of moral exhortations, the so-called *Golden Verses*, we read advice not to neglect "the health of the body," but to give it "drink and food and exercises in due measure (μέτρον)." ⁴³ The *Golden Verses* were immensely popular in late antiquity and were often believed to preserve the original teachings of Pythagoras. Their remarkable influence can also explain why it was taken for granted, as for instance Diogenes Laertius attests, that Pythagoras himself warned against overstepping symmetry in exercises and meals (μήτε τῶν πόνων μήτε τῶν σιτίων). ⁴⁴

Accordingly, it would not be surprising if a Neopythagorean author such as Iamblichus, who aims to reconstruct the glorious history of the Pythagorean movement, treated the anonymous text of *On Regimen* as a convenient piece of ev-

37 Plato, *Tim.* 89c7–d1. While in the *Republic* (406a–c) Plato criticized dietetics for exactly this point, that is that the leisure time one has available could be spent entirely in dietetic care, here he ardently recommends dietetics to anyone who can afford it, which obviously reminds us of the passage in *On Regimen* addressing those who have enough freedom and leisure to arrange their lifestyle according to the needs of health (*Vict.* III. 69; Joly / Byl 200,23–28).

38 Plato, *Tim.* 90c6–7.

39 *Vict.* I,3 (Joly / Byl 126,9–10).

40 Some kind of symmetry or imbalance between body and soul, though spelled out in different terms, is attested also in Democritus (for example 68 B 159, 187, 191, and 212 DK), Lysias (*Pro inf.* 3.3–4, ed. Albin), Isocrates (*Orat.*, *Ad Demonium* 1,12,6, eds. Mathieu / Brémond), or the Hippocratic *Hum.* 9 (L 5. 488.15–490.2).

41 Elsewhere (Bartoš 2009, 25–29; Bartoš 2015, 185–207) I discuss in detail the difference between Plato's moralized version of dietetics and the moral-free version in *On Regimen*.

42 Peck 1928, 124.

43 *Carmen Aureum*, 32–34: οὐ δ' ὑγίειας τῆς περὶ σῶμ' ἀμέλειαν ἔχειν χροί, ἀλλὰ ποτοῦ τε μέτρον καὶ σίτου γυμνασίῳ τε ποιέσθαι.

44 D. L. 8.994–97 ed. Dorandi. Here I read πόνων (with Mss B, P and F), which Dorandi emends (after Cobet) to ποτών.

idence attesting the Pythagorean contribution to the field of medicine. It is noteworthy, nevertheless, that Iamblichus in his report wisely avoids the evidently anachronistic view that Pythagorean dietetics began already with Pythagoras in the sixth century.⁴⁵ He clearly speaks of “the Pythagoreans,” not “Pythagoras” in this passage. Nor does he assert that these Pythagoreans founded the field of dietetics, but rather that they were “almost the first” (σχεδὸν πρῶτους), that is they belong to the first generations of authors to work on the theoretical foundations of the new therapeutic and preventive approach.

According to my reading, the difference between Iamblichus’ story and the interpretation of De Vogel mentioned above is the following. Iamblichus (or his source), takes the author of *On Regimen* to be a Pythagorean who contributed to the field of dietetics by identifying the appropriate dietetic principles, by attaining a high degree of accuracy, and by applying a systematic approach which brought this field to perfection. According to De Vogel and other modern scholars, on the other hand, the Hippocratic author was not a Pythagorean but has merely borrowed some ideas from the Pythagorean tradition, among them the concept of health as symmetry between food and exercise. This interpretation, therefore, presupposes that this concept existed already before *On Regimen*, which is a hypothesis which should and can be tested.

In the opening chapters of *On Regimen* the author makes sufficiently clear that he is drawing on a rich tradition of written treatises, and announces that he is ready to “learn what has been correctly worked out by the labour of others, and to make use of these results in so far as they severally appeared to be of use.”⁴⁶ The current state of discussion is depicted as follows:

While many have already written on the subject, nobody yet has rightly understood how he ought to treat it. Some indeed have succeeded in one respect and others in another, but nobody among my predecessors has successfully treated the whole subject... The correct statements of my predecessors it is impossible for me to write correctly by writing them in some other way... Accordingly, as I have said, I shall accept correct statements and set forth the truth about those things which have been incorrectly stated. I shall explain also the nature of those things which none of my predecessors has even attempted to set forth.⁴⁷

What he means by the whole subject is specified in the second chapter. First he maintains that whoever wishes to write correctly on human regimen “must first acquire knowledge and discernment of the nature of man in general,” by which he means that it is necessary to recognize the primary constituents of man, defined in his account as fire and water, and their mutual relationship in terms of

⁴⁵ See Nutton 2004, 347 n. 69.

⁴⁶ *Vict. I,1* (Joly / Byl 124,12–13), trans. Jones.

⁴⁷ *Vict. I,1* (Joly / Byl 122,7–21), trans. Jones.

dominance, which he solves as a balanced alternation between the dominance of the fire over the water and conversely. Thereafter he mentions the necessity of taking into account the powers of all the foods and drinks of our regimen, and concludes with the following consideration:

Even when all this is known, the care of man is not yet complete, because eating alone will not keep a man well; he must also take exercise. For food and exercise, while possessing opposite qualities, yet work together to produce health. For it is the nature of exercise to use up the available [resources in the body], but of food and drink to replenish what has been depleted. And it is necessary, as it appears, to discern the power of the various exercises, both natural exercises and artificial, to know which of them tends to increase flesh and which to lessen it; and not only this, but also the proportions of exercises suitable to the amount of food taken, to the individual constitution of man, to the age of individual, to the season of the year, to the changes of the winds, to the situation of his dwelling-place, and to the constitution of the year.⁴⁸

This is a brief but comprehensive summary of the ambitious dietetic program the author wants to pursue in his treatise. Some parts of it are obviously adopted from his predecessors, some are partly adopted but improved, and some represent an original contribution of this author, which he calls a *heurema*. The most explicit formulation of his discovery is expressed in Ch. 69, where he announces that “it comprises prognosis before illness and diagnosis of what is the matter with the body, whether food overpowers exercise, whether exercise overpowers food, or whether the two are duly proportioned (μετρίως ἔχει πρὸς ἄλληλα).⁴⁹ For it is from the overpowering of one or the other that diseases arise, while from their being evenly balanced comes good health (ἀπὸ δὲ τοῦ ἰσάζειν πρὸς ἄλληλα ὑγείη προύσσειν).”⁵⁰

Several modern interpreters have rightly concluded that the symmetry between food and exercise is presented in the treatise as an essential part of the author’s discovery.⁵¹ Not only is it explicitly mentioned among the improvements upon the previous dietetic accounts, but the same features mentioned for food and exercise (“while possessing opposite qualities, yet work together”) reappear

48 *Vict.* I,2 (Joly / Byl 124,4–14), trans. Jones (modified).

49 *Vict.* III,69 (Joly / Byl 200,30–202,4), trans. Jones.

50 *Vict.* III,69 (Joly / Byl 200,30–202,4).

51 Fredrich holds that the “Erfindung des Compilators” rests in the diagnosis concerning the prevalence of food or exercises (Fredrich, 1899, 192); according to Jones the discovery “is clearly identified with προδιάγνωσις, how to tell beforehand, by symptoms, whether food or exercise is in excess, and by so doing προκαταλαμβάνειν τὴν ὑγείην” (Jones 1931, xlii–xliii). See also Peck 1928, 52–59. Joly / Byl 2003, 233, are of another opinion and hold that the idea of the balance between nutrition and exercise “n’est pas du tout personnelle à notre auteur.” In support of their claim they refer to several other Hippocratic passages, which I quote in footnote 58 below.

in the definition of fire and water, as we read at the beginning of Ch. 3: "Now all animals, including man, are composed of two things, different in power but working together in their use, namely fire and water."⁵² Fire, which "can move all things always,"⁵³ is the elemental representation of the activities of life, which can all be included in the overarching concept of *ponoi*; and water stands for all nutrition, for it can "nourish all things always."⁵⁴ There is no doubt that this specific account of fire and water supports the idea that health depends on due balance between nutrition and movement, that is food and exercise, and that this principle is the core of the dietetic theory which the author proudly announces as his own *heurema*.

This internal evidence alone cannot guarantee that the author is not here overestimating his merits and, so to speak, adorning himself with borrowed plumes. But the external evidence for the dietetic discussion, as far as we can judge from the extant texts, seems to confirm his originality. Out of the dietetic factors mentioned in *Vict.* I,2 (Joly / Byl 124,4–14) and discussed above, all can be found in treatises that are most probably earlier than or contemporary with *On Regimen*. The constituents of the nature of man and their individual powers are discussed most systematically in the Hippocratic *On the Nature of Man*, including reflections on the general discussion of the day,⁵⁵ but various elemental and humoral speculations are attested also in other Hippocratic treatises.⁵⁶ The relevance of the study of the powers of food and the ways of moderating them by art is discussed in length in *On Ancient Medicine* and *Regimen in Acute Diseases*. Recommendations concerning baths and gymnastics are given in several Hippocratic treatises.⁵⁷ A discussion of the individual constitution of man, including considerations concerning different ages, can be found in the Hippocratic *Regimen in Health*. The seasons of the year and their relevance to diagnosis of each individual condition of the body as well as the changes of the winds, the situation of a person's dwelling-place, or the constitution of the year, are discussed most thoroughly in *Airs, waters, places*. On the whole, practically all the dietetic factors listed by the author of *On Regimen* had been discussed by his predecessors or contemporaries, but no

52 *Vict.* I,2 (Joly / Byl 126,5–6), trans. Jones.

53 *Vict.* I,3 (Joly / Byl 126,9).

54 *Vict.* I,3 (Joly / Byl 126,9–10).

55 *Nat. Hom.* 1–3 (L 6.32–38).

56 To give some examples, bile and phlegm play an important role in *De affectionibus* and *De morbis*, I, while the author of *De haemorrhoidibus* posits bile, phlegm, and blood. The same three humours are combined with the element of water in *De morbis*, IV or with *pneuma*, as the author of *Anonymus Londinensis* (XIX.18–48, ed. Manetti) ascribes to Menecrates. *Pneuma* and air play a crucial role in *On breaths*, while the author of *Fleshes* posits heat as the driving force of all macrocosmic as well as microcosmic processes. The author of *On Ancient Medicine*, on the other hand, rejects all such speculations as inappropriate to the field of medicine.

57 For example *Acut.* 65–68 (L 2.364–374), *Nat. Hom.* 9 (L 6.52–54), *Aff.* 19 (L 6.228) and 20 (L 6.230). See also the passage in *Epidemics* (6.6.3.18 = L 5.302) in which the Hippocratic author criticizes Herodicus for an inappropriate use of vigorous exercises and hot baths.

other author singles out food and exercise as the main dietetic factors⁵⁸ and no one uses the expression *συμμετρῖν*. There is, therefore, no reason to disbelieve the author when he boldly introduces this conception as his original invention.

To conclude, let me summarize the results of my analysis. Iamblichus' passage identifies some concrete theoretical contributions of the Pythagoreans to the field of dietetics, which can be traced back to the classical era and attested in a specific extant treatise from that time, namely *On Regimen*. The author was obviously influenced by ideas which can be, in a sense, identified as Pythagorean, especially in his cosmological and anthropological theories, although he also employs ideas derived from other philosophical sources, including Parmenides, Empedocles, Anaxagoras, and most significantly Heraclitus.⁵⁹ When it comes to his medical and dietetic views, he draws on previous dietetic tradition, which can be well documented in a number of extant medical treatises preserved in the *Corpus Hippocraticum* and which does not attest any specifically Pythagorean ideas. Despite his commitments to the previous tradition, the author is at the same time highly innovative and proudly announces his account as a *heurema*. The core of his *heurema* rests in identifying the principle of health as a symmetry between food and exercise, which he repeats many times throughout his treatise and which is embodied in his elemental theory of fire and water. Accordingly, his main contribution to the field of dietetics has little (if anything at all) to do with the Pythagoreans.

As convincingly demonstrated by a number of modern scholars,⁶⁰ Plato's *Timaeus* draws on several idiosyncratic ideas presented by the author of *On Regimen*, such as the concepts of *poroi* and *periodoi* of the soul and related topics, which are not directly relevant to our discussion, but they clearly attest Plato's acknowledgement of and interest in the peculiar ideas presented in the Hippocratic treatise. And this historical link conveniently explains why Plato employs the same dietetic concepts as the author of *On Regimen*.

From the fourth century onwards, dietetics in general became extremely popular, especially among Greek intellectuals who accepted the idea that everyone

58 As suggested by Joly / Byl 2003, 233, the closest parallels are to be found in the following Hippocratic treatises: In *Breaths* there is one kind of bad regimen characterized as "giving of more food, moist, or dry, to the body than the body can bear, without counteracting the bulky food by exercise" (*Flat.* 7 = L VI,98, trans. Jones: Πονηρὴ δέ ἐστιν ἡ τοιῆδε διαίτα, τοῦτο μὲν ὅταν τις πλέονας τροφὰς ἢ ὑγρὰς ἢ ξηρὰς δίδῃ τῷ σώματι ἢ τὸ σῶμα δύναται φέρειν, καὶ πόνον μηδὲνα τῷ πλήθει τῶν τροφῶν ἀντιτιθεῖ). See also *Prorrh.* II,1 (= L IX,6). In *Epidemics* we read about moderation in exercises, foods, drinks, sleep, and sexual activities (*Epid.* VI,6,2 = L V,324: πόνοι, σιτία, ποτὰ, ὕπνος, ἀφροδίσια, μέτρια). In *Internal affections* under specific pathological conditions it is recommended that the patient's exertion be increased together with gradual increase of food (*Int.* 21 = L VII,220: ταῦτα δὲ ὡς πλείστα τραγέτω καὶ ὠμὰ καὶ ὀπτὰ καὶ ἐφθὰ, αἰεὶ πλείω ἐκάστης ἡμέρης, καὶ ταλαιπωρεῖτω πρὸς τὰ σιτία τεκμαιρόμενος καὶ ἐξ ὀλίγου πλέον). Compare *Int.* 43 (= L VII,274) and 44 (= L VI,276).

59 See Joly / Byl 2003, 25–34.

60 For example Peck 1928, 103–112; Olerud 1951; Sisko 2006; Jouanna 2007.

is to a great extent responsible for his own health and therefore should adopt at least some basic principles of dietetic prevention. The author of *On Regimen* clearly specifies that he has “discovered dietetics” especially for those who have the chance to “neglect everything to concentrate on taking care of their health” and who are at the same time “convinced that neither wealth nor anything else is of any value without health.”⁶¹ Plato in the *Timaeus* explicitly recommends dietetic prevention to every scientist (μαθηματικός) or the ardent devotee of any other intellectual discipline (διάνοια),⁶² and Celsus recommends the same to all with “weak constitution (*imbecillis*), among whom are a large portion of townspeople, and almost all those fond of letters.”⁶³ There is no doubt that there were among these townspeople also some Pythagoreans, who adopted the same dietetic principles as many of their contemporaries did. This may also explain how the dietetic principle recommending a well proportioned moderation in food and exercises found its way into the *Golden Verses*, which for the most part express values shared by a wide consensus. In other words, later Pythagoreans appropriated the same dietetic principle as many other intellectuals of the time. But this is not the same as to say that it was the Pythagoreans who invented it, as is still commonly believed. As I suggest, Iamblichus’ story is most probably based on a Pythagorizing interpretation of one single treatise, which represents the crowning achievement of ancient Greek medical dietetics.⁶⁴ If my interpretation is sound, it rather undermines the value of Iamblichus’ report for understanding the early history of Pythagorean dietetics, but it can, I believe, throw some light on the constitution, integration, and transfer of knowledge in the Pythagorean tradition.⁶⁵

61 *Vict.* III,69 (Joly / Byl 200,23–28), trans. Jones (modified): Ταῦτα μὲν παραινέω τῷ πλήθει τῶν ἀνθρώπων, ὅσοισιν ἐξ ἀνάγκης εἰκὴ τὸν βίον διατελεῖν ἐστὶ, μὴδ’ ὑπάρχει αὐτοῖσι τῶν ἄλλων ἀμελήσασι τῆς ὑγιείας ἐπιμελεῖσθαι οἷσι δὲ τοῦτο παρεσκευάσται καὶ διέγνωσται, ὅτι οὐδὲν ὄφελός ἐστιν οὔτε χρημάτων οὔτε τῶν ἄλλων οὐδενὸς ἄτερ τῆς ὑγιείας, πρὸς τούτους ἐστὶ μοι δίαίτα ἐξευρημένη ὡς ἀνυστὸν πρὸς τὸ ἀληθέστατον τῶν δυνατῶν προσηγμένη. ταύτην μὲν οὖν προῖόντι τῷ λόγῳ δηλώσω.

62 Plato, *Tim.* 88c1–6.

63 Celsus, *De Medicina*, I,1,2, trans. Spencer.

64 Joly 1960, 12; Joly / Byl 2003, 24; Smith 1980, 440.

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V Music

The Pythagoreans and the Therapeutic Effects of the Paean between Religion, *Paideia*, and Politics

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The ancient evidence for the early Pythagoreans and the therapeutic function that they associated with music is provided mainly by two Neoplatonist philosophers, Porphyry of Tyre (c. 234–305 AD) and Iamblichus of Chalcis (c. 245–325 AD), the authors of two works devoted respectively to Pythagoras himself (*Life of Pythagoras*) and to the Pythagorean way of life (*On the Pythagorean Way of Life*).*

Both sources aim to represent Pythagoras himself as the model for the *bios philosophikos*,¹ and his doctrines as forerunners of the Platonic ones,² although, as is already evident from the titles, Iamblichus' book is mainly focused on Pythagoras' and his disciples' *Lebensform*, presented as a model for people aspiring to perfect understanding of the divine dimension,³ while Porphyry's book is clearly a biography, whose author focuses more on Pythagoras – the perfect model for contemporary philosophers – than on the way of life within the Pythagorean communities. Porphyry (VP 33) highlights the charming effects of rhythms and melodies, and also of “sung spells” (*epodai*),⁴ and moreover considers music a kind of *θεράπεια* (“therapy”) and *παράμυθία* (“consolation”), the former relating to the body, and the latter to the soul. In a different way – more deeply linked with the idea of medical and religious purification as a discharge of both emotions and physical ailments – Iamblichus calls the beneficial effects of music catharsis,⁵

* Translations are mine unless otherwise indicated.

- 1 The “philosophic way of life” exhibits some of the features of the monastic life, such as walking in lonely and quiet places, a way of living all together sharing in each other's possessions, and communal reading (see Porph. VP 33 and Iamb. VP 96–98). These features have been highlighted by W. Burkert (Burkert 1982, 13–14), who rightly considers them as evidence of Iamblichus' interest in setting the Pythagorean way of life alongside the Christian one.
- 2 On the rather difficult question of the relationship between Plato and the Pythagoreans I refer the reader to McClain 1978, and to the very recent and important Horky 2013, the latter highlighting the influence on Plato's thought of “mathematical” Pythagoreanism.
- 3 See von Albrecht 2002, 259 and n. 27. As O'Meara emphasizes (O'Meara 1989, 39), Iamblichus seems to sketch Pythagoras' personality by means of an “accumulation of evidences and signs” aiming at showing Pythagoras' uniqueness.
- 4 See Porph. VP 30, κατεκλήλει δὲ ὕθμοις καὶ μέλεσι καὶ ἐπωδαῖς τὰ ψυχικὰ πάθη καὶ τὰ σωματικά. Porphyry makes use of the word *κάθαρσις* in different contexts in his biography (see VP 29; 34; 39; 46), but the effects of music are never mentioned in them.
- 5 A wide-ranging and stimulating book on catharsis is Hoessly 2001.

stating that the early Pythagoreans made use of music against diseases affecting the body, but mainly against diseases affecting the soul, since music was believed to “purify” such evils, causing passions to be purged from both the body and the soul.⁶

In stories concerning the use of music for healing among the Pythagoreans, the idea of musical ethos is very often joined with the religious and medical idea of catharsis. This aspect already seems to emerge in the first testimony in which music therapy – and, in particular, therapy specifically defined as catharsis – is associated with the Pythagoreans, that is in Aristoxenus, fr. 26 Wehrli,⁷ which asserts that “the Pythagoreans, as Aristoxenus said, used medicine for the purification of the body, and music for that of the soul” (οἱ Πυθαγορικοί, ὡς ἔφη Ἀριστοξένος, καθάρσει ἐχρῶντο τοῦ μὲν σώματος διὰ τῆς ἰατρικῆς, τῆς δὲ ψυχῆς διὰ τῆς μουσικῆς).⁸

Aristoxenus of Tarentum, the author of several works concerning the Pythagoreans,⁹ is the most important source for both Porphyry’s *Life of Pythagoras* and Iamblichus’ *On the Pythagorean Way of Life*. In his *Pythagorean Precepts*, Pythagoreanism emerges as a way of life rigidly regulated on the basis of the precepts found in the *akousmata*,¹⁰ while the musical notion of *harmonia*¹¹ shows itself in the moderate attitudes and behaviours associated with the Pythagoreans, for they regarded a reproach (νουθετεῖν) as a “retuning” of passions (πεδαρτᾶν).¹² Concord (συμφωνία) and good proportion (εὐρυθμία), moreover, are central to precepts concerning the generation of healthy children.¹³

My aim in this paper is to focus on a few passages, both in Iamblichus’ and in Porphyry’s Pythagorean biography, concerning in particular the cathartic aspect of the performance of the paean among the Pythagoreans, and the therapeutic role of this musical genre against *mania*, namely its efficaciousness towards behaviours that can upset the individual’s balance, and threaten social order. In those passages the existence of a mutual transfer in Pythagorean knowledge be-

6 See e. g. Iamb. *VP* 68; 110.

7 See Wehrli 1967.

8 On this important piece of evidence on early Pythagoreanism, which shows a close relationship with widespread religious and medical practices, see Provenza 2012.

9 These works are a *Life of Pythagoras* (Πυθαγόρου βίος, also cited as *On Pythagoras and His Disciples* – Περί Πυθαγόρου καὶ τῶν γνωρίμων αὐτοῦ), *On the Pythagorean Way of Life* (Περί τοῦ πυθαγορικοῦ βίου) and *Pythagorean Precepts* (Πυθαγορικοί ἀποφάσεις); see Aristox. frs. 11–41 Wehrli. Aristoxenus gave rise to the biographical tradition concerning Pythagoras. On biography as a genre within the Peripatos see Fortenbaugh 2007, 45–78 (in particular for Aristoxenus, 73–76).

10 As far as this matter is concerned, I limit my references to von Albrecht 2002; Macris 2013.

11 In a very famous *akousma*, *harmonia* is characterized as “the most beautiful thing” (Iamb. *VP* 82, τί κάλλιστον; ἁρμονία).

12 See Iamb. *VP* 197–198 = Aristox. fr. 30 (= 49) Wehrli = Archyt. Test. A7 Huffman.

13 Aristox. fr. 39 W. (= Stob. 4.37.4); Iamb. *VP* 211, ὦντο γὰρ ἐκ φαύλης τε καὶ ἀσυμφώνου καὶ ταραχώδους κράσεως μοχθηρὰ γίνεσθαι τὰ σπέρματα, “they believed that from intercourse that is base, discordant, and disordered a bad offspring derived.”

tween music and politics emerges, closely related to the idea that *kosmos* and *harmonia* show themselves both within the individual and in society.

Paeans, *ethos* and *eunomia*. Thaletas' cathartic songs and the Pythagoreans

The paean appears as the specific musical genre used by the Pythagoreans in order to effect a therapy of both emotions and illnesses, expressly defined as catharsis. Iamblichus refers to this kind of therapy in *VP* 110,¹⁴ describing a Pythagorean cathartic rite which took place in spring¹⁵ and involved listening to paeans for soothing and therapeutic purposes: a member of the community sat on the ground and played the lyre while others, seated in a circle around him, intoned some paeans, which allowed them to rejoice (εὐφραίνεσθαι) and to become "harmonious and orderly" (ἑμμελεῖς καὶ ἔνρυθμοι). In other periods of the year too, as Iamblichus makes clear, Pythagoras used music as a medical remedy (χορῆσθαι δαυτοὺς καὶ κατὰ τὸν ἄλλον χρόνον τῇ μουσικῇ ἐν ἰατρείας τάξει), explicitly calling music therapy (ἢ διὰ τῆς μουσικῆς ἰατρεία) "catharsis" and also using it against physical infirmities.

A scholion on the *Iliad* (*Schol. Vet. in Hom. Il.* 22.391), in which mention is made of this musical catharsis taking place in spring, comments that "in ancient times, and down to the Pythagoreans, music was called, strangely, 'catharsis'" (ἡ πάλαι μουσική... μέχρι τῶν Πυθαγορ<ε>ίων ἐθαυμάζετο καλουμένη κάθαρσις), with evident reference to Aristox. fr. 26 Wehrli.

According to the Pythagoreans, the lyre, the musical instrument involved in this rite, soothes anger and its violent outbursts, and is moreover able to heal sorrow, low spirits, distress, and real mental disorders. Porphyry (*VP* 32) says that Pythagoras, starting in the morning, harmonized his voice with the sound of the lyre and sang the ancient paeans composed by Thaletas (ἔωθεν... ἄρμοζόμενος πρὸς Λύραν τὴν ἑαυτοῦ φωνὴν καὶ ἄδων παιᾶνας ἀρχαίους τινὰς τῶν Θάλητος). The use of the lyre to sedate anger seems then to be efficacious both for the person playing it, and for people listening to its music, and also for a kind of "group therapy."

The mention of Thaletas' paeans in Porphyry's account sheds some light on the social role the Pythagoreans attributed to music. Actually these songs both inspired Pythagoras' disciples at the beginning of the day, and accompanied their daily tasks, taking care of their souls. These aspects can be connected with the

14 Detienne (1962, 42 n. 2), in agreement with Delatte (1938, 24), considers Aristoxenus to be the authority on this Pythagorean custom. Brisson and Segonds (1996, 183) are of the same opinion.

15 Cathartic paeans performed in spring set up a relationship between the rebirth and renewal of nature in that season and health (for spring as a season favourable to the beginning of illnesses, see e. g. Arist. [*Pr.*] I, 9 (860a 12–34) and 27 (862b 11–15)). Paeans for Apollo were traditionally performed during festivities in spring (see Theogn. 773–782 = Käppel 1992, test. 110. In winter, the cult of Apollo at Delphi was replaced by that of Dionysus; see Plut. *De E ap. Delph.* 9, 388e–389c = Käppel 1992, test. 89). The performance of "spring paeans" is also attested in Aristox. fr. 117 Wehrli (on which see 300–301).

political aspect of Pythagoreanism, since, as we know from the Pseudo-Plutarchan treatise *De musica* (41.1146b–c), Thaletas came to Sparta from the Cretan city of Gortyn, after the Spartans had been informed by the Delphic Oracle¹⁶ that their city could only be healed by means of music (διὰ μουσικῆς ἰάσασθαι) from the plague (λοιμός) vexing it. Subsequently, Thaletas had a prominent role within the Spartan cultural landscape, and was the founder of the so-called second κατάστασις (“musical school”).¹⁷

The attribution to Crete of the origins of the musical tradition of the paeans, dances, and musical rhythms in use in Sparta is matched by the fact they were called κρητικά, as Strabo attests in a passage deriving from Ephorus.¹⁸ There is a further connection with Crete in the fact that it was the Delphic Oracle which suggested Thaletas to the Spartans as an expert on catharseis: when Apollo himself killed the dragon (δράκαινα) that had lived at Delphi,¹⁹ he travelled to Crete for purification.²⁰

Affirming the utility of music for the *polis* and the attention paid to it by the cities that have the best laws (εὐνομώταται), the author of the pseudo-Plutarchan *De Musica* (42.1146b = Terp. test. 19 Gostoli) sets Thaletas, who healed the plague through music (διὰ μουσικῆς), alongside Terpander,²¹ who used his music to soothe the internal strife (στάσις) that afflicted Sparta itself. This pacifying role of Terpander can be considered a social catharsis. It is also sometimes represent-

16 The strong relationship between Crete and the Delphic oracle is highlighted in the *Homeric Hymn to Apollo*.

17 Plut. [*De mus.*] 9, 1134b = Terp. test. 18 Gostoli.

18 *FGrHist.* 70 F 149 (18) = Strab. 10.4.18 = Käppel 1992, test. 108. Strabo (10.4.16) mentions Thaletas as the musician to whom the Spartans ascribed not only the paeans, but also many of the musical genres they used to perform (ὧ καὶ τοὺς παιᾶνας καὶ τὰς ἄλλας τὰς ἐπιχωρίους ὧδὰς ἀνατιθέασιν καὶ πολλὰ τῶν νομίμων).

19 See *Hom. Hymn. Ap.* 287–374 (as for those verses and the fight between the god and the snake – the *aition* of the Pythian games – see Fontenrose 1959, 13–22). The same *Homeric Hymn* (389–519) reports the myth of Apollo appearing as a dolphin to some Cretan seamen and commanding them to become priests of his sanctuary. Those men followed the god to Delphi “singing a paean to the healer god like the paean singers in Crete, and those whom the divine Muse fills with honey-voiced song” (517–519, Κρητες πρὸς Πυθῶ καὶ ἱηπαυήον’ αἰδον, / οἰοί τε Κρητῶν παῖνες οἰσί τε Μοῦσα / ἐν στήθεσσι ἐθηκε θεὰ μελίγηρυν ἀοιδήν, trad. Rayor [2004]).

20 See Paus. 10.6.6–7; 2.7.7 (after the killing of Python, Apollo and his sister Artemis ran away to Aegialeia to obtain purification, but in the place thereafter named Phobos they were seized with terror and fled to Crete, where they were finally purified by Carmanor); 2.30.3; Parker 1983, 142–143. In the dialogue *De defectu oraculorum* (418b–c), Plutarch – referring to the stoic Cleombrotus – considers as false and ridiculous the story concerning the purification of Apollo from the contamination of the blood of the killing of Python (see on that Rescigno 1995, 325–327 n. 142; Detienne 2002, 260–261, 266).

21 Active in Sparta in the first half of the seventh century BC, Terpander was born in Antissa, on the island of Lesbos. His name is linked with the institution of the citharodic competition within the Carneian festivals at Sparta (676–675 BC; see Hellanic. *FGrHist* 4 F 85a *ap.* Athen. 14.635e = Terp. test. 1 Gostoli). On Terpander and his environment see in particular the introduction of Gostoli 1990.

ed with words that characterize mystic initiations,²² highlighting the ritual and mystic aspect of catharsis. This aspect, which makes Terpander a real *kathartes*, the holder of initiatory knowledge from which his poetic τέχνη derives, sets up a substantial link with Thaletas. Plutarch, in the *Life of Lycurgus* (4.1–2), attributes to Thaletas the same role of sedating στάσις which is associated with the melodies of Terpander in the Pseudo-Plutarchan *De Musica*. Plutarch himself states that the songs of Thaletas were in reality

λόγοι ... πρὸς εὐπείθειαν καὶ ὁμόνοιαν ἀνακλητικοί, διὰ μελῶν ἅμα καὶ ῥυθμῶν πολὺ τὸ κόσμιον ἐχόντων καὶ καταστατικόν, ὧν ἀκροώμενοι κατεπραῦνοντο λεληθότως τὰ ἥθη καὶ συννικεῖοντο τῷ ζήλῳ τῶν καλῶν ἐκ τῆς ἐπιχωριαζούσης τότε πρὸς ἀλλήλους κακοθυμίας, ὥστε τρόπον τινὰ τῷ Λυκούργῳ προοδοποιεῖν τὴν παιδευσιν αὐτῶν ἐκείνων).

discourses that exhorted people to obedience and concord, through melodies and rhythms that had in themselves a great ability to inspire order and moderation. Listening to them, men, without realizing, grew calm with respect to their character, and grew accustomed to seeking the beautiful, breaking away from the usual mutual malevolence, so that in a sense the songs of Thaletas prepared for Lycurgus the system of education to which he submitted the Spartans.²³

Thaletas therefore paves the way for the important legislation of Lycurgus, while, on the other hand, like Terpander, he puts an end to the internal strife in Sparta, showing that music is also able to influence political life.²⁴

This connection between Thaletas' paeans and Spartan institutions is fundamental to understanding how recourse to such songs by Pythagoras would have been closely connected to the political and legislative project that he developed in Magna Graecia²⁵ with the aim of inducing moderation and social harmony. Both Porphyry (VP 21) and Iamblichus (VP 33–34), based on Aristoxenus' *Life of Pythag-*

22 In an epigram in the *Greek Anthology* (2.1.113–115), Terpander's songs and dances are said to be "initiatory" (μῦστιδα μολπὴν) and performed with a "mystic lyre" (μυστιπλόη φόρμιγγι); see Franklin 2006, 59.

23 See also Plut. *Agis*, 10.6 = Terp. test. 17 Gostoli: extraordinary honours were bestowed upon Terpander and Thaletas in Sparta, although they were foreigners, since they shared the same ideals as Lycurgus, manifesting them both in their musical compositions and in speculative thought (ὅτι τὰ αὐτὰ τῷ Λυκούργῳ διετέλουν ἄδοντες καὶ φιλοσοφούντες).

24 Clement of Alexandria (*Strom.* 1.16.78 [2.51, 3–5 Stählin] = Terp. test. 40 Gostoli) states that Terpander "set to music the Spartans' laws" (τοὺς Λακεδαιμονίων νόμους ἐμελοποίησε); see on this point Gostoli 1995, 106.

25 Among the Western Greek *poleis* governed by the Pythagoreans, Tarentum gained special prominence in the first half of the fourth century (especially from 379 BC, when Croton was conquered by Dionysius I). The Pythagorean Archytas was *strategos* in that city for seven years running (see Archyt. test. A1 Huffman = D. L. 8.79. Archytas was born between 435 and 410 BC and died about 350. For his chronology, see Huffman 2005, 5–6).

oras (Πυθαγόρου βίος),²⁶ state that in southern Italy and Sicily Pythagoras carried out the work of liberating the enslaved cities, also inspiring in them the desire for freedom itself. Among the cities mentioned are Croton, Sybaris, Catania, Rhegium, Himera, Agrigentum, and Tauromenium, upon which towns Pythagoras is said to have imposed the laws of Charondas of Catania²⁷ and of Zaleucus of Locri.²⁸ Over and above the panegyric and propagandistic intent, the placing in the Pythagorean sphere of these two important legislators – as we already find in Aristoxenus (frs. 17 and 43 Wehrli = D. L. 8.15) and is confirmed by Iamblichus (for instance, in *VP* 172), although they lived before Pythagoras himself – appears to be instrumental to representing Pythagorean politics as anti-tyrannical. Further, it also presents the most important figures in southern Italy as a “product” of the Pythagorean way of life,²⁹ which, as Iamblichus himself affirms (*VP* 166), generated many philosophers, poets, and legislators (πλείστους παρ’ αὐτοῖς ἄνδρας φιλοσόφους καὶ ποιητὰς καὶ νομοθέτας γενέσθαι), and turned that previously obscure land into Magna Graecia.³⁰

The importance of these legislators also emerges in a passage of Aristotle’s *Politics* (1274a25–30) where reference is made to their links with Crete. Indeed Aristotle affirms that, according to some, Onomacritus of Locri, the first important legislator, went to Crete, where he practised the mantic art (τέχνη μαντική). On this occasion Thaletas seems to have become his companion (ἑταῖρος), while Lycurgus and Zaleucus appear as disciples of Thaletas, and Charondas becomes a disciple of Zaleucus.

Hence a tradition existed that linked μαντική not only to catharsis, but also to politics and legislation (νομοθεσία) and which, at the same time, tended to highlight the bonds between Crete and Pythagorean Magna Graecia. This tradition seems to have included the aspect of musical catharsis and its repercussions for the community – and thus also political repercussions – which can be glimpsed in the episode of the arrival of the musician Thaletas in Sparta in the second quarter of the seventh century BC. The sources also highlight the relationships between Thaletas and the cultural environment of Magna Graecia, particularly Locri. In this connection, the author of the Pseudo-Plutarchan *De Musica* (9.1134b) reports that, while the first musical school (κατάστασις) in Sparta seems to have been created by Terpander, the second was established by Thaletas of Gortyn, together with Xenodamus of Cythera, Xenocritus of Locri, Polymnestus of Colo-

26 See Aristox. fr. 17 Wehrli = Porph. *VP* 21. Sources report Περί Πυθαγόρου καὶ τῶν γνωρίμων αὐτοῦ (*On Pythagoras and his followers*) as an alternative title for this work.

27 Charondas (sixth century BC) was considered to have laid the laws both of his own city and of the Chalcidian colonies in Magna Graecia. See Plat. *Resp.* 599e; Arist. *Pol.* 1274a23–25.

28 Zaleucus lived before Charondas, in the seventh century BC. The first written laws may date back to him (see Ephor. *FGrHist.* 70 F 138–139).

29 The inclusion of Zaleucus and Charondas in Iamblichus’ catalogue stems from a fifth-century tradition due to the Pythagorean lawgivers of Locri and Rhegium (see Zhmud 2012, 114).

30 This passage can be related to Aristoxenus, frs. 17 and 43 Wehrli.

phon, and Sacadas of Argo.³¹ This testimony therefore sets up a close connection between Thaletas and Xenocritus of Locri,³² showing the link between the Cretan musician and the sphere of Magna Graecia.

These elements prove very useful for an interpretation of Porphyry's reference (VP 32) to the fact that Pythagoras used the ancient paeans of Thaletas for a cathartic purpose: the antiquity of these songs and the prestige of the tradition,³³ which linked them to a difficult moment in the history of Sparta, seem to fit well both with the eunomic appeals of Pythagoreanism and with its link to Apollo and the oracle of Delphi, the "guarantor" of the activity of Thaletas. In this connection, Pythagoras was often set alongside Apollo,³⁴ and a belief had also spread that he was the son of the god.³⁵ Moreover, Apollo and the Delphic cult are present in the very name of Pythagoras,³⁶ and Aristoxenus (fr. 15 Wehrli = D. L. 8.8) is alleged to have stated that the Sage received most of his ethical teaching from a Delphic priestess named Themistocleia ("she who is famous for her pronouncements").

Against this background, the testimony about Iamblichus' cathartic paean (VP 110–111) mentioned above and that of Aristoxenus (fr. 117 Wehrli), which will be considered next, can be contextualized; they belong in the context of a strong call for political harmony, in which μουσική – and therefore φιλοσοφία itself – was instrumental to political action, favouring equilibrium and harmony. It is thus not by chance that Pythagoras uses the paeans to cure the agitated states of mind of his disciples, favouring internal harmony, which in turn is a guarantee of upright action.

31 Thaletas, Xenodamus and Xenocritus composed and performed paeans, although Xenodamus may have been mainly famous as an author of *hyporchemata* (Pratinas, mentioned in the same passage, seems to have considered him as such). The Pseudo-Plutarchan *De Musica* (10.1134d10–e1) mentions other musical genres also for Thaletas and Xenocritus.

32 The author of *De musica* says that Xenocritus was the author of "heroic subjects implying an action" (ἡρωϊκῶν ... ὑποθέσεων πράγματα ἔχουσών, this description may hint at dithyrambic compositions). The Locrian musician is for us little more than a name in the landscape of Greek archaic poetry; for the sources on him I refer the reader to Fileni 1987.

33 The author of the Pseudo-Plutarchan *De musica* (10.1134e) sets up a relationship between Thaletas' songs and Olympus' auletic melodies (to Olympus the same source [29.1141b] ascribes the real beginning of Greek music).

34 See Iamb. VP 30, where it is said that there was a widespread belief in the cities of southern Italy that at that time Apollo had appeared in human form – Apollo Pythius, for some, for others Apollos Hyperboreus, or Paean – or else that one of the demons who lived on the Moon had appeared, or one of the gods of Olympus, in order to help correct men's lives (εἰς ὠφέλειαν καὶ ἐπανόρθωσιν τοῦ θνητοῦ βίου) and donate to mortal nature the salvific incitement of happiness and philosophy (ἵνα τὸ τῆς εὐδαιμονίας τε καὶ φιλοσοφίας σωτήριον ἔναυσμα χαρίσῃται τῇ θνητῇ φύσει), the greatest asset sent by the gods through Pythagoras.

35 Iamblichus (VP 7) refutes this opinion.

36 Iamb. VP 5–9.

Cathartic paeans for women's madness

The stress on the need to inspire self-control in individuals as a guarantee of correct interaction inside the community is also evident in a testimony by Aristoxenus (fr. 117 Wehrli) in which the beneficiaries of treatment through paeans are some women inexplicably struck by a deleterious form of *mania*, whose behaviour risks jeopardizing the community order, and therefore the social expectations of their role.

The reference in Iambl. *VP* 110–111 to the internal order established by performance of the cathartic paean, expressed by the adjective *ἐνϋθμοι*, provides a useful key to the interpretation of this text, in which there is a more obvious reference to perturbed behaviours, inspired by madness and cured by paeans, likewise performed in spring. The testimony is an anecdote, reported by the paradoxographer Apollonius (*Mir.* 40), in which it is said that Aristoxenus in the biography of Telestes³⁷ reports a very strange fact (ἄτοπον) regarding women in Locri and Rhegium: they were in such a condition of agitation that when they heard someone call them while they were having lunch they suddenly jumped up, without it being possible to hold them back, and rushed outside the walls of the city. After consulting the oracle about a remedy for this unusual behaviour, the people of Locri and Rhegium received the divine answer that they were to “intone twelve vernal paeans a day for sixty days” (παιᾶνας ἄδειν ἐαρινούς δώδεκα τῆς ἡμέρας <ἐπὶ ἡμέρας> ξ'),³⁸ and after this there arose many authors of paeans in those places (πολλοὺς γενέσθαι παιανογράφους ἐν τῇ Ἰταλίᾳ).

This episode reveals a strong apologetic intent related to the cultural supremacy of Magna Graecia, a site of Pythagorean communities, and specifically to the cities of Locri and Rhegium. Concerning Locri it has been noted that such propaganda tended to present relations of close cultural proximity to Crete, which is believed to have influenced both its musical tradition, through the contiguity of Thaletas of Crete and his pupil Xenocritus of Locri, an author of paeans who appears to have distinguished himself in Sparta within the second κατάστασις,³⁹ and its political organization, thanks to the legislator Zaleucus, who is said to have learned the mantic art in Crete.

From the religious point of view – the sphere in which the ἐκστάσεις of women are cured – the episode is also placed in the collective and public dimension linked to the cult of Apollo, to whom choral hymns are addressed. As in the case of the paeans addressed to this divinity in Book I of the *Iliad*,⁴⁰ the anecdote

37 Perhaps the famous author of dithyrambs from Selinus, a leading exponent of the New Music.

38 The text is corrupt: παιᾶνας ἄδειν ἐαρινούς τῶδεκατῆς ἡμέρας. I accept West's conjecture (see West 1990) – also accepted by Käppel (1992, test. 139) – reading δώδεκα τῆς ἡμέρας <ἐπὶ ἡμέρας> ξ'. West quotes Hom. *Il.* 1.472 as evidence for the singing of paeans for a prolonged time with cathartic aims.

39 See above, 298–299.

40 472–474, οἱ δὲ πανημέριοι μολπῇ θεὸν ἰλάσκοντο/καλὸν αἰδόντες παίονα κούροι Ἀχαιῶν/μέλποντες ἐκάεργον· ὁ δὲ φρένα τέρετ' ἀκούων, “for the whole day the young Achaeans appeased the god with song and dance, intoning a beautiful paean, honouring

about the women also concerns the cathartic-religious sphere of music therapy: recovery is effected by the god, who through the song is “persuaded” to act and heal them. The prolonged repetition of the paeans therefore appears like a form of ritual “penitence.” This testimony is not without propagandistic intent, highlighted, as Marie Delcourt has shown,⁴¹ by the reference to the oracle of Delphi, which seems to imply the primacy of Magna Graecia in the production of paeans.

Further, in this testimony sociologically important elements emerge that link the tradition of the paean, on the one hand, with the rituality of some aspects of daily life, and, on the other, with the manifestation of *mania* as a “centrifugal” and destabilizing element of social life, particularly in the case of women, who adopt disruptive and dangerous behaviours.⁴² As regards this aspect, the anecdote makes reference to the segregated life of women within the domestic sphere.⁴³ In the case of the women in Aristoxenus, fr. 117 Wehrli, catharsis does not take place within the Dionysiac mysteries, which encompassed a manifestation of female madness with the aim of favouring its ideological opposite,⁴⁴ but in that of the cult of Apollo,⁴⁵ to whom paeans are addressed to ward off evils from the community. The use of the paean in relation to the subversive and “anti-musical” behaviour of the women of Locri and Rhegium therefore re-establishes the disturbed order. The reference to Magna Graecia in the tradition of this musical genre seems to be intended to confirm Pythagoreanism’s drive towards order.

Conclusions

The anecdotes on the use of the paean, like the testimonies in which reference is made to the ideals of good government, thus bring out the devotion of the Pythagoreans to an ideal of life based on measure and stability, which is also pursued through the cathartic use of music, considered effective for amending characters and habits. The reference to the paean in relation both to the pacifying activity of Thaletas in Sparta and to the beneficial work of the legislators active in Magna Graecia, therefore, constitutes an effective appeal to the conservative

with song the god that casts arrows; and his heart was glad to hear.” This is the first piece of evidence concerning the paean, which established itself from the beginning as the musical genre used for healing diseases – especially epidemic ones – by means of appeasing the god that caused the disease itself (Apollo had sent a plague to the Achaeans because of Agamemnon’s offence against Chryses, Apollo’s priest and the father of Chryseis, Agamemnon’s slave, whom the priest wishes to ransom).

41 See Delcourt 1998², 234–235.

42 See Guidorizzi 1995, which analyses this piece of evidence in the light of the medical conception of female madness; Fortenbaugh 2012, 170–171; Provenza 2012, 107–108.

43 For this aspect I refer the reader to the useful reflections in Seaford 1994, 301–311. On women among the Pythagoreans, their role, and education, see Pomeroy 2013.

44 A very famous example of women’s madness in the Dionysiac rites is represented in Euripides’ *Bacchae*. Among the many studies on women and the Dionysiac rites, see Goff 2004.

45 A valid parallel in this regard is found in Theopomp. *FGrHist* IIb, 115 F 77 (= *Schol. in Ar. Pacem* 1071 = *Suda* s. v. Βάκις), which refers to an Apollonian bard who purifies the madness of women in Sparta.

drives of Pythagoreanism, promoters of a social order linked to the strong condemnation of every type of excess. This fundamental feature of Pythagorean politics is also highlighted in two almost identical passages in the *De vita pythagorica* of Iamblichus (34) and in the *Vita Pythagorae* of Porphyry (21–22), who indicates Aristoxenus as his source (fr. 17 Wehrli); these have already been mentioned with reference to Charondas and Zaleucus.⁴⁶ Shortly after affirming that Pythagoras had entirely succeeded in eliminating struggles and discord (Iambl. VP 34, στάσιν καὶ διχοφωνίαν καὶ ἀπλῶς ἑτεροφροσύνην; Porph. VP 22, στάσιν) not only among his disciples and their descendants for many generations, but also in the cities of Italy and Sicily, both in their mutual relationships, and inside each of them, the two Neoplatonic philosophers in this connection attribute to Pythagoras a discourse on the absolute need to eradicate with every means “illness from the body” (ἀπὸ μὲν σώματος νόσον), “ignorance from the soul” (ἀπὸ δὲ ψυχῆς ἀμαθίαν), “excess from the abdomen” (κοιλίας δὲ πολυτέλειαν), “sedition from the city” (πόλεως δὲ στάσιν), “discord from the house” (οἴκου δὲ διχοφροσύνην), and “together the lack of measure from all things” (ὁμοῦ δὲ πάντων ἀμετρίαν). The communities of Pythagoreans therefore pursued a radical change in the life-style of the cities in which they took on a dominant political role, favouring the diffusion of principles of moderation.⁴⁷

The close collaboration between medicine and music, “the wisest thing” and “the most beautiful thing”⁴⁸ according to the *akousmata*, both of which are promoters of catharsis in Aristoxenus, fr. 26 Wehrli, therefore produces temperance and dignity in individuals, and also becomes instrumental, within the whole society, to the establishment of harmony bringing stability and order.

⁴⁶ See above, 298.

⁴⁷ This aspect appears to be illustrated in a paradigmatic way by an anecdote reported by Aristoxenus (fr. 30 [= 49] Wehrli = Iamb. VP 197–198 = Archyt. test. A7 Huffman, see Huffman 2005, 287–292) about the Pythagorean Archytas: returning from a military campaign Archytas was angry, noting that the overseer and the slaves on his farm had not worked in his absence, and told them to consider themselves lucky for his anger, since if he had remained calm, they could never have avoided punishment (εὐτυχοῦσιν, ὅτι αὐτοῖς ὥργισται· εἰ γὰρ μὴ τοῦτο συμβεβηκὸς ἦν, οὐκ ἂν ποτε αὐτοὺς ἀθῶους γενέσθαι τηλικαῦτα ἤμαρτηκότας).

⁴⁸ Iamb. VP 82, τί σοφώτατον τῶν παρ’ ἡμῖν; ἱατρικὴ· τί κάλλιστον; ἀρμονία.

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“Are Flute-Players Better than Philosophers?” Sextus Empiricus on Music, against Pythagoras

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1

I wish to examine what is perhaps only a small fragment of the long history of the reception of Pythagorean doctrines, yet one that may provide evidence for the endurance in the imperial age, in a Pyrrhonian-Sceptic context, of interest in a certain way of portraying Pythagoras and a certain cliché surrounding his figure. In the case of Sextus Empiricus we can perhaps speak of a sort of ideological use of his sources on Pythagoreanism: his interest is possibly distorted, and is not to be taken at face value, but it nonetheless merits some consideration, especially to shed light on the more general question of the transformation of some key concepts within the Pythagorean tradition.

My paper has two aims:

- Firstly, I shall provide some quantitative data on the presence of Pythagoras within Sextus Empiricus’ corpus, with the aim of identifying the contexts in which he is explicitly invoked (possible implicit allusions form an issue too complex to tackle here). I shall try especially to identify and elucidate musical references.
- Secondly, without entering into the overall structure of Sextus’ attack on the “liberal arts,”¹ or the philosophical aim he is pursuing in his confutation of any τέχνη that purports to rest on a completely dogmatic basis, I will focus on a peculiar chapter in Pythagorean *Wirkungsgeschichte*. This is represented by the critical observations that Sextus Empiricus presents in two passages of his treatise *Against the Musicians* (=M 6), with regard to the ethical standing and moral / medical power that Pythagoras apparently assigned to music.

This polemical spirit is to be viewed against the broader background of the Pyrrhonian plan to confute the concept of music, its theoretical claims, and the field of action assigned to it by dogmatic philosophers. Sextus’ attack may therefore

1 See Spinelli 2010.

be regarded as a fresh stage in a long-running battle.² A remote “archetype” for it is *PHibeh* 13 (probably the work of Alcidamas), with its explicit opposition to the theoretical and moral claims of music (which are in this case set in contrast to the superiority of rhetoric). A closer antecedent may be found in a series of Epicurean objections that have been recorded in Philodemus’ *De musica* (although no definitive solution can be offered here and perhaps some serious doubts may be raised: see *infra*, §§ 3 and 4).³

2

We can start with something that has never been done before, namely to count and statistically evaluate Pythagoras’ presence in Sextus Empiricus’ references and citations.

We leave aside the occurrences of the term Πυθαγορικός, which is used both as an adjective and in a substantivized form in the plural (οἱ Πυθαγορικοί, vel sim.), since these references are not directly relevant to an enquiry into Sextus’ view of Pythagoras himself. We will, however, mention the adverbial and comparative form of the adjective, πυθαγορικώτερον: it occurs in M 4, 11, as a useful way of describing Plato as a philosopher who defended the concept of “one” in a rather Pythagorean fashion. Notwithstanding this exclusion, a few brief remarks on these forms are in order, as in certain cases they provide some interesting and theoretically valuable hints.

We may note the special function of the formula Πυθαγορικῶν παιῖδες, which is used to introduce doctrines of considerable importance, for instance at M 10, 270.⁴ The doctrine described here clearly reflects a later development, one strongly influenced by the Academic tradition and in particular – as Leonid Zhmud has rightly noted – due to “the tendency to attribute to Pythagoreans and (much less frequently) to Pythagoras the Platonic teaching of the One and the indefinite dyad [that] first appears in pseudo-Pythagorean literature of the first century and in Neopythagoreanism.”⁵

Another significant doctrine introduced by the formula Πυθαγορικῶν παιῖδες occurs in *Against the Musicians* (M 6, 30). This passage, in a general way (and perhaps due to a late re-interpretation) attributes to the “Pythagorean fraternity” the idea that “the cosmos is ordered according to harmony.”

One should also take into account that the formula *plur. gen. nominis proprii* + παιῖδες is not unusual in Sextus’ *usus scribendi*. A striking example is in *Against the Ethicists* (M 11, 24), where we find the expression Στωικῶν παιῖδες, possibly an allusion to later Stoics, and in particular Mnesarchus. By naming the παιῖδες

2 For Sextus’ programme in M 6 see §§ 1–6, and Davidson Greaves 1986; Delattre 2007a, 100; Spinelli 2008; Bett 2013.

3 See Brancacci 1988; also Barker 1989, 457–458, n. 1; Rispoli 1992, 216–217, n. 3.

4 It is already explicitly attributed to Πυθαγόρας alone in M 10, 261, then to οἱ Πυθαγορικοί in M 10, 262 and 291, and finally to τῶν Πυθαγορικῶν στάσις in M 10, 282.

5 Zhmud 2012, 423, here n. 33.

(that is, "sons," or according to some translators "disciples" / "followers") of a given philosophical sect, this formula is intended to suggest to the reader that the doctrines under discussion were not developed by the founder or original core of the school but rather stem from later developments, either by reframing or even newly forming ideas. In the two cases just mentioned, for instance, Sextus (or his source) does not believe that these ideas may legitimately be associated with the name of Pythagoras himself.

If we now turn to consider explicit occurrences of the name of Pythagoras, we need to exercise particular caution. For in this case too we must draw a distinction between the mere mention of the philosopher's name and the more complex formulas within which it is set.

For example, when – on two occasions – Sextus mentions Pythagorean doctrines by placing them under the authority of οἱ ἀπὸ τοῦ Πυθαγόρου, it seems he is referring to what had by then become standard doctrines, ones which Pythagoreans accepted almost by default. These include the idea that numbers are "elements" of the κόσμος, and that they cannot coincide with "numeration" or ἀριθμητά.⁶

A very different case is provided by those passages – no less than seven – in which distinctly Pythagorean doctrines are introduced by the formula οἱ περὶ (τὸν or τὸν Σάμιον) Πυθαγόραν – the latter formula occurring only in *M* 10, 248, as we shall see very soon. When Sextus uses the phrase οἱ περὶ + *acc. nominis propriae*, he is usually making a direct reference to the thinker whose name is given in the accusative.⁷ Often, however, this reference also reflects Sextus' awareness of the fact that the particular thesis in question, while traceable to a specific philosopher, is now shared by the whole αἵρεσις that derives from or depends on him. This would also appear to be the case with those passages attributing well-established doctrines to Pythagoras, or rather to οἱ περὶ τὸν Πυθαγόραν.

The first thesis to be considered is very famous. It posits – often in the context of doxographic lists of varying length or completeness – numbers as the principles of all things. Numbers are presented – not without some inconsistency – as being either material or incorporeal.⁸ In a most interesting passage (*M* 10, 248), however, numbers are simultaneously presented as principles (ἀρχαί) and elements (στοιχεῖα) of wholes (τῶν ὅλων). This thesis introduces a long section in Sextus' *Against the Physicists* (*M* 10, 249-284), in which – as previously noted – we find Platonic arguments and conclusions that derive from a late pseudo- or Neopythag-

6 See *PH* 3, 152 and 163: this latter passage builds on a thesis attributed to οἱ Πυθαγορικοί a few paragraphs earlier, in *PH* 3, 157.

7 For other references see Spinelli 2000, 53, n. 18 and Vogt 2015, 54, n. 13.

8 As material in *PH* 3, 32, where the Pythagorean position is distinguished from that of οἱ μαθηματικοί, who consider as principles τὰ πέρατα τῶν σωμάτων; to the contrary, they are presented as immaterial in *M* 9, 364, where the Pythagorean stance is once again distinguished from that of οἱ μαθηματικοί and their πέρατα τῶν σωμάτων, which are nonetheless also incorporeal; more generally see now Betegh 2015.

orean reinterpretation. It is nonetheless worth noting that in this introductory text the thesis in question is attributed to those οἱ περὶ τὸν Σάμιον Πυθαγόραν who are, significantly, compared to “the most knowledgeable of the physicists” (οἱ ἐπιστημονέστατοι τῶν φυσικῶν), possibly because, as we read soon afterwards (M 10, 250), they “say that genuine physicists, who research questions about the all, have to begin by examining into what things the all admits of being broken down.”⁹

In another occurrence (M 10, 45), describing the different sides in the “dissonance” or διαφωνία concerning the existence or non-existence of motion, the name of Pythagoras (always presented through the label οἱ περὶ τὸν Πυθαγόραν and presented as a champion of the actual subsistence of motion) is associated with the evidence provided by “everyday life,” by βίος. In this passage, in particular, he is reckoned among the majority of physicists (such as Empedocles, Anaxagoras, Democritus, Epicurus, the Peripatetics, the Stoics, “and a great many others”) who support the idea that motion indeed exists or subsists. Aside from this passage, however, we also find a number of other interesting ones. Again in *Against the Physicists*, for instance (M 9, 127 and 130), in a rather haphazard manner and without drawing any subtle distinctions, Sextus places οἱ περὶ τὸν Πυθαγόραν alongside Empedocles (other important fragments of whom are quoted verbatim: 31 B 136 and 137 DK) and alongside “the rest of the Italian crowd.” In this case, Sextus more or less correctly attempts to present as a “common opinion” of this group of thinkers the idea that there exists a sort of profound “communality” (κοινωνία) between men, the gods, and non-rational animals – a concept which lies at the basis of well-known dietary taboos (namely abstention from the murder of animals and the consumption of flesh). Not only that, but Sextus further stresses this view in M 9, 128 through a verse¹⁰ which may have been fabricated in the Hellenistic age, in a pseudo-Pythagorean context, and placed under the authority of Pythagoras.¹¹

We may now turn to the eight occurrences of the name “Pythagoras” alone, leaving aside for the moment both M 10, 261, which I have already mentioned, and the two passages from *Against the Musicians* which I shall be examining later (§§ 3 and 4).

For the sake of convenience, we may divide the remaining quotations from Sextus into three groups.

A. First we may record – but without assigning them any decisive originality – the two passages (M 7, 94 and M 4, 2) in which Sextus recalls the famous Pythagorean oath attested in several sources from the Hellenistic and impe-

9 Both translations from Bett 2012, 125–126; on M 10, 248–309 and its possible source (Posidonius?) see also Brennan 2015, 327–329.

10 “Redden the altar of the blessed with hot bloodshed” (βαμὸν ἐρεῦθοντας μακάρων θερμοῖσι φόνοισιν, tr.: Bett 2012, 28).

11 See Riedweg 2002, 159–161; on M 9, 127–131 see also Bett 2015, 49–50.

rial periods.¹² This passage is centred around the idea that the followers of Pythagoras (who are, significantly, described as οἱ Πυθαγορικοί in M 7, 94, and who – in the light of M 7, 92 – are perhaps to be identified chiefly with Philolaus, or the οἱ ἀπὸ τῶν μαθημάτων Πυθαγορικοί mentioned in M 4, 2) invoke Pythagoras as a divine figure worthy of being called upon in place of the gods to swear an oath, along with the equally famous τετρακτύς which he had discovered (arguably together with Hippasus) and "which traditionally symbolizes the connection between harmonics, arithmology, and religion."¹³

- B. The citation in M 9, 64 deserves a separate mention. In a section of Sextus' work presenting "the arguments from the agreement among all humans" in favour of the existence of the gods, the name of Pythagoras is mentioned in the context of a connection both with the opinions of ordinary or common people (or "idiots," etymologically: Sextus uses the expression ἰδιωτικὴ ὑπόνοια, M 9, 63), and with the statements made by poets (most notably Homer). Not only that, but Pythagoras' name is mentioned again – significantly – in relation to "the mass of physicists." Pythagoras' name, therefore, is featured as part of a strange list which includes Empedocles, the Ionians, Socrates, Plato, Aristotle, the Stoics, and even Epicurus and "those of the Garden." It seems to me that in this case too Sextus has not bothered to provide an accurate analysis of the positions of such a varied range of thinkers, or to draw the necessary distinctions. Instead, he has chosen to set up a sort of "dogmatic theological party," whose leading member, in his view, is Pythagoras.
- C. I have left two strange citations concerning Pythagoras until last.

The first is the one that in my view raises the greatest problems in terms of reliability and accuracy. At the opening of the specific section of the first book of *Against the Physicists*, which is devoted to the investigation and refutation of the concept of body (see M 9, 366), Sextus presents a definition of the body "as what is capable of being acted upon or of acting." This definition is perhaps reminiscent of the Stoic and more generally Hellenistic jargon with which Sextus is so concerned in his polemics (but see Betegh 2015, 136, n. 10). We learn here, however, that the main proponent of this definition, or indeed its ἀρχηγός / "pioneer," was none other than Pythagoras. I must confess that I find it very difficult to account for this attempt to cast Pythagoras in the role of πρῶτος εὐρετής of a notion of the body which was no doubt developed only much later. Indeed, it is rooted in a context shaped by Hellenistic materialistic physics that is very, very remote from Pythagorean doctrines on being. With much caution, we may suggest that, in an attempt to establish an unbroken line of historical development in the materialistic approach to the body, Sextus' source (a Stoic, perhaps) chose to trace his own

12 See for example Aët. I 3, 8 = 58 B 15 DK and for other occurrences Zhmud 2012, 301, n. 53.

13 Zhmud 2012, 300; see also Barker 1989, 30–31.

philosophical pedigree back to an important, almost legendary figure such as Pythagoras, regardless of whether this theoretical backdating was correct or not.

The second odd passage occurs in a section of *Against the Grammarians* (M 1, 303). Arguing against poets and in support of the antiquity of the Empedoclean saying *simile simili cognoscitur*, Sextus here frames Empedocles' position within the context of an argument entirely devoted to φυσική θεωρία. In particular, Sextus connects it to a root idea developed ἀπὸ Πυθαγόρου, but which in his view is also later to be found in Plato's *Timaeus*. Doubts may legitimately be raised regarding this attribution, but I believe it is easier to explain why Sextus makes this association. The way in which the section under consideration is constructed as a whole gives the clear impression that Sextus (or his source: maybe Posidonius, while interpreting Plato's *Timaeus*? See also Blank 1998, 335–336) is making independent and no doubt original use of the material at his disposal, with the aim of establishing – *disserendi causa* – a powerful alliance of philosophical personalities (Pythagoras-Empedocles-Plato) that stands against the explicative claims illegitimately made both by those who are technically γραμματικοί and, once again, by those who are simply “idiots” / common people.

No matter how we regard these accounts and the doubts they may raise, it seems to me that they represent a reliable background against which one can now consider the structure and specific arguments of two passages from *Against the Musicians* which I intend to examine in most detail.

3

In order to understand better the specific objections that Sextus raises against Pythagoras, I must first make a few remarks concerning the musical aspects of ancient Pythagoreanism.

Against the backdrop of the dialectical relation between philosophy and musical theory, which is well documented and certainly represents an important chapter in classical culture, it is perhaps possible to identify the more specific contribution made by the Pythagoreans. According to the helpful division suggested by Zhmud, “three basic elements of that theory which the ancient tradition linked with Pythagoras continue to be associated with his name: (1) the mathematical treatment of music, (2) the doctrine of a musical ethos, or the psychagogic and educative effects of music, (3) the famous ‘harmony of the spheres’ generated by the movement of the heavenly bodies.”¹⁴ I shall leave aside the first and third of these elements, which nonetheless are well attested in sources regarding Pythagorean authors, or at any rate authors closely connected to Pythagoreanism (Archytas, Philolaus, Plato, Aristoxenus and even later Ptolemy, Porphyry, Aristides Quintilianus and so on). These sources bear witness both to the mathematical approach adopted by the Pythagoreans and to their strong interest in astronomy. The second aspect, which is the one which I would like to stress, is possibly a

14 Zhmud 2012, 286.

more conjectural one, since it posits some kind of "connection between Pythagoreanism and ideas of the ethos of music."¹⁵ This is the ethical aspect of music, or rather its power to shape and substantially influence individual morals. In other words, I would here like to approach what Pythagoras himself – according to Iamblichus' *Life of Pythagoras* (§ 111) – regarded from a strictly technical point of view as a form of *κάθαρσις*, a form of medical treatment based on music, as well as its power to eliminate negative passions, reshape moral attitude, and finally produce a good character or *ἔθος*.

In this respect, the evidence from Sextus' *Against the Musicians* is particularly valuable, and appears to be part of a much wider doxographic tradition. We may begin with Sextus' account of Pythagoras (*M* 6, 7):

(7) First in order, let us begin with the things customarily babbled about music by the many. Now if, they say, we accept philosophy since it gives temperance to human life and restrains the passions of the soul, by much more do we accept music because it commands us not too violently but, with a certain enchanting persuasiveness, prevails over the same effects as does philosophy.¹⁶

The first point worth noting has to do with terminology. Sextus wishes to set out from what ordinary people usually say about music, without any real grasp of the subject, in an idle manner, babbling on without any persuasiveness. This is certainly the meaning that is always conveyed in Sextus' prose by the verb *θολεῖσθαι*. Sextus also uses it in several other passages in order to discredit some of the Stoics' doctrines.¹⁷

The second step of Sextus' polemical strategy consists in comparing philosophy and music, with the aim of formulating the same positive value judgement with regard to both, yet in such a way as to establish a clear hierarchy. According to the "many" whose ideas are here presented, we should certainly welcome philosophy, on account of its capacity to restrain the passions of the soul and to nourish temperance over the course of a person's life.¹⁸ According to the same *πολλοί*, however, primacy in the ethical sphere is nonetheless to be assigned to music.¹⁹ Music accomplishes the same goal as philosophy, namely to calm and purify, and does so by lending order without violence (the expression *οὐ βιαστικώτερον ἐπιτάττουσα* we find here is a unique formula in Sextus). Music possesses a per-

¹⁵ Ibid.

¹⁶ Translations of the passages in *M* 6 are from Davidson Greaves 1986.

¹⁷ See, for instance, *M* 11, 109, 133 and 191 (other references in Janáček 2000, 77); accordingly, in our passage too are the Stoics the implicit target of Sextus' polemic?

¹⁸ The verb *σωφρονίζω* used here occurs only in *M* 6, 10, 23 and 28; it seems to be a technical term applied to music, like others we will soon be examining.

¹⁹ See also Quint. *Inst. or.* 1 10, 31; Plut. *De virt. mor.* 3, 441D–E; and some passages in Aristides Quintilianus' *De musica* (2.3, 5 and 6).

suasive power marked by gracefulness or even charm (as confirmed by the use of the verb *θέλω*, another hapax in Sextus).

At this point, Sextus brings Pythagoras into the picture, as the primary exemplar of this attitude (or as ἀρχηγός, a “pioneer” again, not of any physical doctrine but of a moral standpoint).²⁰ Pythagoras is featured as the protagonist of an anecdote worth relating in full:

(8) Thus Pythagoras, when he once observed how youths who had been filled with Bacchic frenzy by alcoholic drink differed not at all from madmen, exhorted the flute-player, who was joining them in the carousal, to play his *aulos* for them in the spondaic *melos*. When he thus did what was ordered, they suddenly changed and became as temperate as if they had been sober even at the beginning.

When faced with the wine-induced Bacchic frenzy and apparent madness of some youths (at a κῶμος, or Dionysiac procession), Pythagoras does not resort to sober and neatly structured philosophical theory, but adopts a more direct and practical solution: he prescribes a specific musical treatment for these youths. The moral remedy for this yielding to an irrational passion, then, is provided by music, which was already viewed as an effective antidote to drunkenness by Aristoxenus – if we are to trust pseudo-Plutarch’s *De musica* (43, 1146F = fr. 122 Wehrli). To be more precise, Pythagoras orders the execution of a solo flute performance according to a specific tune, the spondaic. This typically Doric mode is suitable for libations and solemn religious events, and is further characterized by slow tempos and a relaxed rhythm, which exerts a soothing effect.²¹

On this text, one point must first be made about the terminology used. It is packed with words found in Sextus only here.²² The concentration of such terms can only be accounted for on the basis of a close dependence on the source from which the anecdote is drawn. But what is this source? I do not think it is possible to provide a certain answer to this question, but we can at least attempt to reconstruct the presence of this anecdote about Pythagoras in a few other authors, and so set down some fixed points of reference for its circulation both in Greek and in Latin literature.

The text that provides the most detailed version of an episode similar to the one related in *M* 6, 8 is once again in Iamblichus (*Life of Pythagoras*, § 112). However, it seems to me that we ought to search elsewhere, and in particular not after Sextus but before him.

20 See Martinelli 2012, 13–18.

21 See for example Dion. Hal., *Comp.* 17 and Arist. Quint., *De musica* 1, 15; on the moderate character of the Doric mode, see also Arist., *Pol.* VIII, 5 1340b3 and 7, 1342a28–b29 (useful comments in Brancacci 2013, 16–17).

22 We find: μέθη, ἐκβακχεύομαι, συνεπιχωμάζω, σπονδεῖος, ἐπαυλῶ, αἰφνίδιον, and also other terms rare in Sextus, such as ἀλητής (used in *M* 7, 146, with reference to Speusippus and νήφω (only in *PH* 1, 100 and 109).

In this case we may consider ourselves lucky, perhaps, since a similar tale to that of Sextus is attested in a fragmentary passage of Philodemus' *De musica* (col. 42, 39–45). This text is difficult to decipher, yet clear in its overall sense, if we accept the reconstruction proposed by Delattre.²³ Once again, let me quote the passage in full, in Delattre's French translation:

Quant à Pythagore, [il réussit à obtenir un comportement] plus docile [de jeunes gens] qui étaient ivres, en invitant [une] joueuse d'aulos [à jouer] un air spondaïque [en vue de susciter en eux les affections contraires] <à celles que leur causait l'ivresse> ...

This passage from Philodemus seems far more complex than the one from Sextus, and clearly differs from it in certain respects (starting from the gender of the flute-player, here a female). What matters for our purposes is the fact that here too the passage known from Sextus is connected to an Epicurean source. In other words, we could suppose that – not least in order to attack the alleged moral usefulness of music, as defined by Pythagoras – Sextus drew upon Epicurean material, and specifically from Philodemus' writing.²⁴ It is clear, however, that if this were so Sextus did not simply copy from Philodemus' *De musica*.

However, the structure of Sextus' text, the many unique terminological occurrences included in it, and its Bacchic overtones rather suggest a different scenario, namely the existence of a common source, followed more closely by Sextus. This impression is strengthened by a comparison with the Latin version of the same episode regarding Pythagoras. This is a short and sketchy passage by Quintilian, which in turn almost certainly depends on Cicero's *De consiliis suis*.²⁵ After stressing the need to acquire "the knowledge of the principles of music, which have the power to excite or assuage the emotions of mankind," Quintilian writes (*Inst. or.* I 10, 32):

(32) We are told that Pythagoras on one occasion, when some young men were led astray by their passions to commit an outrage on a respectable family, calmed them by ordering the piper to change her strain to a spondaic measure, . . .

23 This is his Greek text: Πυθαγόραν δὲ [.....] [εὐ]αγωγότερον [νεανίων ..] μεθυόντων καλέσαντα τίνα αὐλητρίδαν [..... ἐπὶ τὸ πᾶν]αν[τία] πά[θη] ἐμποιεῖν [.....]ους τὸ σπονδαῖον μέλος] καὶ τοῦτον [.....] \ (for the translation see Delattre 2007b, 69).

24 For the Epicurean "flavour" of some of Sextus' attacks see Gigante 1981, 215–221; see also Rispoli 1991, 1992, 2000, and 2005; Blank 1998; Delattre 2006 and 2007b; Bett 2013. On the relationship between Sextus' approach and other authors / groups interested in ancient musical doctrines (besides Philodemus, also Aristotle, Aristides Quintilianus, Plutarch, the tradition centred around Aristoxenus' theories), see Davidson Greaves 1986, 24–35.

25 Fr. 3 (in August., *Contra Iul.* 5, 23); it was later taken up by Boethius as well (*Inst. mus.* I 1), whose version seems however more similar to Iamblichus' report (above, 312); for other, shorter occurrences of the same episode see Ammonius (*In Porph.* 13, 24–28) and Elias (*In Porph.* 31, 11–13).

Here too we find some discrepancies (the Bacchic context is perhaps only implicit and is explicitly replaced by a more general picture of a private or family quarrel). Nevertheless, the background is still provided by the ethical and medical-moral value attributed to the use of the spondaic rhythm. We may therefore apply the same considerations as in the comparison between Philodemus and Sextus: could the latter be regarded as being more faithful to the original source of the anecdote, which sought to emphasize the Dionysian framework of the whole episode and stress the ethical and religiously sanctioned value of the musical modes suited for sacred libations, namely spondaic tunes?

Despite the divergences, the evidence considered so far appears to agree in attributing this episode to Pythagoras, the legendary thinker – especially given the role assigned to music as an outstanding (and exceptionally effective) tool, capable of having positive therapeutic effects in the treatment of the passions of the soul, particularly negative and irrational ones. Unfortunately, however, things are not that simple. In a passage from Galen, a similar episode, and one very close to Philodemus' version (including its portrayal of the flute-player as a woman), associates the anecdote not with Pythagoras but with a figure connected to Pericles' circle and well known to Socrates and hence Plato: Damon of Athens.²⁶ Damon's allegiance to the Pythagorean school, though, is a conjecture that may well be unfounded.²⁷ Nonetheless, let us read this passage (37 A 8 DK):

Damon, a musician, was once present as a female flute-player was playing according to the Phrygian style and some youths, intoxicated by wine, were engaging in senseless behaviour. He then ordered her to play according to the Doric style, and they immediately ceased their immoderate agitation.

How are we to solve this quandary? Is it simply a matter of names getting mixed up? I do not see this as a reasonable solution. A different explanation has been suggested by Lasserre, who believes that the whole episode and anecdote was originally attributed to Damon and that only later – through a (possibly conscious) act of projection – Damon's name was replaced with the more famous and important one of Pythagoras.²⁸ This explanation could apply in the case of Sextus, who never mentions Damon and does not appear even to be aware of him. But how could this apply to Philodemus, who knows Damon well and even mentions his theories with regard to the moral value of music – for instance, music played with a cithara – as a way of fostering virtues (such as bravery, wisdom, and justice)?

Perhaps we ought to suspend our judgement with regard to these two conflicting attributions; perhaps, against the background of a Pythagorean doctrine that also focuses on the "psychagogical" effects of music, we might accept that both

26 On Damon and his musical theories see e. g. Brancacci 2008, Chs. 1–2.

27 See Wallace 1995, as well as Zhmud 2012, 118. On the sources for the alleged links between Damon and Pythagoreanism, see West 1992, 246–247.

28 See Lasserre 1954, 62–63.

Pythagoras and Damon had identified certain musical rhythms (the specifically spondaic rhythm in the one case, and the more generally Doric rhythm in the other) as a means of bringing about subjective as well as objective moral improvements. Alternatively one could draw the opposite conclusion to Lasserre's, and assume that Damon followed in the footsteps of Pythagoras and picked up or extended some of his doctrines.

4

Moving away now from the quagmire of the various issues raised by *M* 6, 7–8, let us briefly examine the criticism which Sextus formulates against the position he attributes to Pythagoras. We must here turn to § 23 of *Against the Musicians*, where we read:

(23) And Pythagoras, in the first place, was foolish in wishing to give temperance at the wrong moment to those who were intoxicated instead of avoiding [intoxication]. In the second place, by correcting them in this manner, he concedes that the flute-players have more power than the philosophers with respect to the correction of ethos.

In order to refute the allegedly Pythagorean idea that music has a moral value, Sextus follows two approaches of different philosophical weight. The first consists in simply accusing Pythagoras of not having applied his musical treatment at the right moment (as suggested by the adverb ἀκαίρως, again a hapax in Sextus). But the accusation probably runs deeper than this. First of all, it is in line with a Pyrrhonian objection that had already been formulated not long before (*M* 6, 21–22). Richard Bett sums this objection up as follows: "even if a particular piece of music may temporarily calm someone, this is due to its distracting the listener, not altering his emotional state in any genuine or long-term way."²⁹ Aside from this, however, we may argue perhaps that Sextus' attack operates on a more broadly medical plane. Pythagoras has failed in his treatment because he has not been able to free the drunken youths from their senseless passion deep down, by truly drawing them away from the evil that has struck them and eradicating it completely (according to a holistic approach, we might say: for this is the strong meaning which on several occasions Sextus appears to assign the verb ἐκκλίνω).³⁰ Pythagoras has only extrinsically (or allopathically, if you like) countered moral suffering through its opposite: a soothing remedy capable of blocking the symptoms without destroying the disease of the soul at its root. In Sextus' eyes, therefore, Pythagoras appears to deserve a markedly disparaging adjective, one used by Sextus himself in his harshest and most radical criticism: Pythagoras has shown himself to be foolish / μάταιος.

²⁹ Bett 2013, 170–171.

³⁰ Other passages in Janáček 2000, 77.

In the latter part of the text, Sextus seems to adopt a different position in his criticism. He takes for granted that Pythagoras ought to see philosophy as superior to music, and so Sextus can implicitly recall the opposite hierarchy which he had established, in a preliminary and almost programmatic manner, in § 7. If playing the spondaic tone on a flute achieves better and more morally effective results than the use of philosophical theories, this boxes Pythagoras into a corner, for he must then admit that music is superior to philosophy. In the matter of correcting the moral inclinations of someone who is dangerously straying from the straight path, then we had better forget about professional philosophers and find some flute-players.

So this whole argument is aimed directly against Pythagoras.³¹ Faced with the need to establish a moral path capable of eradicating evil passions and of replacing them with a healthy moral disposition, we have no need at all of Pythagoras' philosophical doctrines or theoretical speculations, since – by Pythagoras' own admission – a slow, solemn piece of music, played in the appropriate rhythm and tone, will prove far more effective.

I wonder then, half seriously and half in jest: would it not be better to take books away from drunkards and those in the grip of other destructive passions, and immerse them instead in the warm atmosphere of a sweet and relaxing ballad of cool healthy jazz? Might Charlie Parker's *Laura* or the marvellous version of *My funny Valentine* played by Gerry Mulligan / Chet Baker's famous "pianoless quartet" not yield better results than many dull moral treatments?

All joking aside, this refutation by Sextus brings up many of the same issues of *Quellenforschung* as those raised by the previous passages. Is this text Sextus' own work? Or is he drawing upon some previous source (as seems more reasonable to suppose, given the way in which Sextus usually constructs his polemical texts)? In this connection too, the name of Philodemus has been invoked, on some good grounds, such as similarities between the two authors' underlying arguments,³² and especially some undeniable affinities in their choice of terms: take, for instance, the double occurrence of the verb ἐπαινεῖσθαι and the formula ἐπαινεῖσθαι ἡθῶν (both used only here in Sextus), where the latter expression is also explicitly used in Philodemus' *De musica*.³³ Delattre has restated his view that Sextus must have drawn upon Philodemus' writing.³⁴ While his hypothesis remains a legitimate and even attractive one, I believe it is safer to argue – to quote Bett again – that, "the question whether Sextus is making direct use of Philodemus in this part of *Against the Musicians*, or simply drawing on material that Philodemus also consulted, is not likely to be answered in any definitive way."³⁵

31 And perhaps against Plato's *Republic*? Or even against a tradition that is represented later by Aristides Quintilianus' systematic treatment of musical theories (see Brancacci 2013, 28)?

32 In Philodemus' *De musica* see especially coll. 78; 130–131 e 142 Delattre.

33 See col. 144, 24 Delattre.

34 See Delattre 2006.

35 Bett 2013, 171.

Whatever the exact relation between the two authors, it cannot be presented in terms of a passive dependence of Sextus upon Epicurean material. If Sextus ever made use of this material, he knew how to reframe it, abridge it, and redeploy it in an original way.

All this may suffice to demonstrate that Sextus was no slave to his sources, and may help us ditch the annoying label of "stupid copyist" that is all too often applied to him.

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VI Number & Harmony

Greek Arithmology: Pythagoras or Plato?

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1 The problem

There is a genre of ancient Greek and Latin writings which are usually called arithmological. Their best known example is the *Theology of Arithmetic*, a short anonymous treatise of the fourth century AD dealing with the wonderful properties of the first ten numbers. This treatise, mistakenly attributed to Iamblichus, heavily relies on two earlier works, an extant *On the Decad* by Iamblichus' teacher Anatolius and a lost *Theology of Arithmetic* by the Neopythagorean Nicomachus of Gerasa. Several quotations from this work will suffice to give an idea of the overall character of the genre:

The Pythagoreans called the monad 'intellect' (*nous*) because they thought that intellect is akin to the one; for among the virtues, they likened the monad to moral wisdom; for what is correct is one...

The dyad is also an element in the composition of all things, an element which is opposed to the monad, and for this reason the dyad is perpetually subordinated to the monad, as matter to form...

The triad, the first odd number, is called perfect by some, because it is the first number to signify the totality – the beginning, middle, and end. When people exalt extraordinary events, they derive words from the triad and talk of 'thrice blessed', 'thrice fortunate'. Prayers and libations are performed three times. Triangles both reflect and are the first substantiation of being plane; and there are three kinds of triangle – equilateral, isosceles, and scalene (Waterfield 1988, 39, 42, 51).

Such and similar comments on the philosophical, theological, and mathematical properties of the first ten numbers constitute the bulk of the arithmological works or passages.

Though the term "arithmology" is widely present in the scholarly literature, its meaning sometimes tends to be rather fluid. To avoid misunderstandings I would like to remind readers of the original and still normative sense of the term. It was coined by A. Delatte (1915, 139), who, in his book on Pythagorean literature, defined arithmology as "a genre of notes on the formation, significance, and importance of the first ten numbers, in which sound scientific research is mingled with fantasies of religion and of philosophy." Thus, from the very beginning the

term “arithmology” was attached to a *specific genre of non-mathematical writings on the first ten numbers*. It is in this meaning that arithmology was normally used after Delatte, for example by F. Robbins,¹ who in the 1920s investigated most Greek and Latin arithmological texts, spanning from the time of Varro (116–128 BC) to the early Byzantine writers, and established their common ancestor, a pseudo-Pythagorean treatise, probably of the late second or early first century BC. Robbins’ results were generally accepted, giving wide currency to the term “arithmology;” whereas his and Delatte’s contention that this genre goes back to Pythagoras and the ancient Pythagoreans, only strengthened an already dominant opinion on this question. To be sure, Delatte admitted that the first specimen of the genre was a short treatise *On Pythagorean Numbers* by Plato’s nephew and successor Speusippus, and Robbins substantiated his claim by referring to the fragments and book titles of Philolaus and Archytas, which are now universally considered to be spurious.² K. Staehle (1931, 3–5), in his useful study of Philo’s arithmology and the later parallels to it, was inclined rather to regard the Early Academy as the *Sitz im Leben* of arithmology, but did not develop this idea. It is therefore the purpose of this paper to argue that:

- 1) the late Hellenistic pseudo-Pythagorean treatise (hereafter *Anonymus Arithmologicus*, *An. Ar.*) offered Platonism disguised as authentic Pythagoreanism, thus sharing a common feature with most pseudo- and Neopythagorean writings of the first century BC – first century AD;³
- 2) arithmology as a system was created in the Early Academy; the principal impetus for its formation came from Plato, especially from his unwritten doctrine of the ten ideal numbers;
- 3) the interest of the Pythagoreans in significant numbers belonged to traditional Greek number symbolism; even if it influenced Plato and his students, which is not certain, it was different in kind from arithmology.

2 What is arithmology?

When writing about arithmology, it is convenient to start with some general remarks on its nature. As a literary genre arithmology is easily distinguishable from a much more general cultural phenomenon usually called number symbolism (the *Zahlensymbolik* of early nineteenth-century German philosophy), which in ancient Greece gave rise to many diverse practices, such as medical prognostics based on odd and even numbers, embryological calendars, isopsephy, and so on.⁴ Some scholars, however, do not see much difference between arithmol-

1 Robbins 1920, 309 n. 1; Robbins 1921. Staehle 1931, 1–2, also endorses Delatte’s definition.

2 Delatte 1915, 140; Robbins 1926, 90.

3 See on this my paper “What is Pythagorean in the pseudo-Pythagorean literature?” (in preparation).

4 Another term for this phenomenon, “numerology” (coined in 1907), covers an even vaster area, dealing with the mystical properties of numbers, which includes many modern para-

ogy and number symbolism and use the terms interchangeably;⁵ others define them, respectively, as “the body of lore” and as “the method whereby such lore is used,”⁶ which is not particularly helpful. What is important, of course, is not the terminology as such, but the need to draw a distinction between a very general psychological habit and its specific literary embodiment. Number symbolism is rooted in human nature⁷ and therefore universally widespread. It goes back to preliterate times,⁸ whereas arithmology appears in ancient Greece in a specific period and milieu, so that every ancient arithmological text or passage displays manifest affinities with its distant forefather. Thus, all fully preserved Greek arithmological texts, either long or short, start at one and go up to ten; arithmological fragments presuppose the same structure. The only prominent exception is Philo of Alexandria: in his lost work *On Numbers* he commented on practically every number mentioned in Jewish Scripture; still, most of his speculations are confined to the first ten numbers (Staehle 1931).

Traditional number symbolism, be it ancient Near Eastern or Greek, concentrates on *individual significant* numbers, such as three,⁹ seven, or nine,¹⁰ which acquired their special significance before and apart from any philosophy. In the framework of number symbolism, numbers are not yet related to the decad, they possess their own independent meaning, whereas arithmology organizes them into the system of the first ten numbers, and treats both their purely mathematical properties and their philosophical and theological implications. In arithmology every number becomes a member of the arithmetical progression from one to ten: one is the beginning of numbers, two is the first even number, three is the first odd number, four is the first square number, and ten is the perfect number, comprising the whole nature of numbers. Whereas number symbolism focuses on various correspondences of the numbers with the things of the outer world (three Moirai, four seasons, seven stars of the Bear, nine Muses), arithmology, retaining this focus, also displays a keen interest in those properties of numbers that are easily amenable to paramathematical interpretations: odd, even, prime, composite, and so on. Two is the first female number and three is the first male number, for even and odd is associated with female and male, five is marriage, seven is the Maiden Athena, for inside the decad it neither produces nor is produced, and so on. Thus, numbers constitute in arithmology an independent level

mathematical fancies such as pyramidology, etc. See a critical study by an eminent mathematician: Dudley 1997.

5 As, e. g., Burkert 1972, 466 n. 2; Kalvesmaki 2013, 5.

6 Runia 2001, 26–27.

7 In a famous paper the cognitive psychologist George A. Miller explained the ubiquity of seven by the capacity of human memory (Miller 1956). See also Zvi 1988.

8 Rich material was collected by Burkert 1972, 466–474.

9 The fundamental monograph on the triad is Usener 1903. See also Lease 1919, who brings an impressive number of examples among which is “even grammar with its 3 persons, 3 numbers, 3 voices, 3 genders, 3 degrees of comparison, 3 kinds of accent, etc.” (67); Mehrlein 1959.

10 Ancient Near East: Dawson 1927; Reinhold 2008. Greece: Roscher 1904; Roscher 1906.

of reality, which demonstrates that this genre could not have originated until Plato developed his theory of the two worlds, the visible and the intelligible, the physical things and the Forms, and until his heirs Speusippus and Xenocrates replaced or identified the Forms and ideal numbers with mathematical numbers.

Understandably, arithmology does not dismiss the traditional meaning of individual significant numbers but incorporates it into its own system. Thus the description of the triad quoted above from *Theology of Arithmetic* (above, 321) goes back to Aristotle's account of the Pythagorean belief in the triad as the number of an "all" (*Ph.* 268a10–20), a belief that certainly derives from the prehistoric lore. Solon's famous elegy on the seven-year ages of man's life (fr. 17 Diehl) was often quoted or alluded to in the arithmological writings. The so-called embryological calendars, which is to say calculations of the development of the foetus, based on the same number as in Solon's scheme, were known in Greek medicine and philosophy from the fifth century BC (see below, 339). Later this practice was partly incorporated into arithmological literature,¹¹ and partly developed by medical writers.¹² With time, arithmology accumulated many of these traditional beliefs, but what is important to bear in mind is that it has never ousted number symbolism from its traditional niche. Number symbolism continued to live its own life and produce literary specimens of its own kind, such as, for example the late pseudo-Hippocratic treatise *De hebdomadibus* (Roscher 1913). The first part of that tract (ch. 1–11) pays particular tribute to seven without, however, making it a member of a numerical series leading to ten, or even mentioning any other number. Such an approach is typical of number symbolism, not of arithmology.¹³ Contrary to *De hebdomadibus*, Varro, who participated in the Neopythagorean movement and definitely used *An. Ar.*,¹⁴ says in an introduction to his *Hebdomades* that, if one adds numbers from 1 to 7 they will make 28, which number is equal to the lunar cycle, that is, to four weeks in seven days.¹⁵ This is what one should normally expect of an arithmological text.

The last general remark on arithmology concerns its similarity to the doxographical genre. Both genres owe their birth to the treatises of the fourth century BC: doxography to the *Opinions of the Natural Philosophers* by Theophrastus, who heavily relied on Aristotle, and arithmology to *On Pythagorean Numbers* by Speusippus, who was no less heavily dependent on Plato. The history of both genres

11 Barker (in this volume).

12 For the general history of this practice, see Parker 1999.

13 The Hellenistic date of *De hebdomadibus*, defended in the thorough study by Mansfeld 1971, remains the most plausible; since connections with first-century BC arithmology have remained unproven, the tract could well have been written in the second century BC. Runia 2001, 280, on different grounds, also suggests the second century BC.

14 Palmer 1970, 19–21. He wrote *On the Principles of Numbers* and *Atticus de numeris* (*Cens. De die nat.* 2.2).

15 Aul. Gel. 3.10.6; cf. 10.13. In Anatolius the same statement sounds like a formula: "When added up from the monad the 7 produces the 28, a perfect number which is equal to its own parts" (11.12–13).

in the third–second centuries is completely unknown, but in the first century BC, the time of the great philosophical revival and change, they re-emerge: one as the anonymous doxographical compendium called by H. Diels the *Vetusta placita*, and another as the *Anonymus Arithmologicus*. Both works represent the decisive turn to philosophy of the classical age; both give rise to a vast family of similar writings. In the same way as doxography, arithmology consists not only of complete writings but more often of passages or parts of texts, the characteristic features of which allow us to identify them in writings of other genres, be it commentaries, philosophical treatises, popular introductions, and so on. The crucial difference between the two genres is apparent: doxography constitutes our most important source for the Presocratics and is a subject of ongoing research and vivid debates, whereas arithmology exists on the margins of the study of Greek philosophy. “The history of arithmology still remains to be written,” as it was in 1971, when J. Mansfeld wrote these words.¹⁶ It is far from my intention to write such a history; I shall only attempt to clarify some important issues pertaining to arithmology and its history, starting from *An. Ar.* and going back to the Pythagorean predecessors of Speusippus.

3 The pseudo-Pythagorean writings of the third–second centuries BC

An. Ar., reconstructed in its main features by Robbins, belongs to the pseudo-Pythagorean apocrypha. To what degree does this guarantee that its teaching derives from pre-Platonic Pythagoreanism? The problem concerns not only *An. Ar.* but pseudo-Pythagorica in general, and has given rise to two opposing theories: one sees continuity between ancient and Hellenistic Pythagoreanism and another insists on a rupture between them.¹⁷ After a long discussion it is now widely agreed that pseudo-Pythagorean treatises were fabricated throughout the Hellenistic period and the early Roman empire without any discernible link to the original writings of the Pythagoreans of the fifth and fourth centuries, not to mention Pythagoras’ own teaching. When reading pseudo-Pythagorean writers, one gets the impression that they neither knew the works of their proclaimed predecessors, nor were interested in them. That is why the corpus of pseudo-Pythagorica is almost completely useless for any historical reconstruction of the teachings of the ancient Pythagoreans. Revealingly, it contains not a single authentic quotation of Alcmaeon, Philolaus, Archytas, Ecphantus, or any other ancient Pythagorean. Therefore, if a Hellenistic treatise claims to be written by Pythagoras or by any of his ancient followers, we should hardly expect to find in it an authentic Pythagorean teaching. From the turn of the first century BC, pseudo-Pythagorean apocrypha (especially those written in Doric) increasingly relied on Academic and Peripatetic interpretations of Pythagoreanism, or directly on the theories of Plato and Aristotle. This is exactly what we find in *An. Ar.* The tendencies of the

¹⁶ Mansfeld 1971, 156. Cf. Runia 2001, 28.

¹⁷ For a bibliography of the problem see Zhmud 2012, 6 n. 11; Centrone 2014.

two previous centuries, however, were very different. Though the chronology of the pseudo-Pythagorean writings is notoriously difficult and controversial, a substantial group of them, attributed to Pythagoras himself, are referred to by authors of the third–second centuries and thus can be more or less reliably dated.

The first pseudo-Pythagorean apocrypha started to appear at the end of the fourth century, by which time the school itself had disappeared (after 350). Neanthes of Cyzicus, a historian of the late fourth century BC, mentions the letter to Philolaus, written by the alleged son of Pythagoras, Telauges (*FGrHist* 84 F 26). Neanthes himself considered the letter to be spurious; it seems to have been of biographical, not doctrinal character. The biographer Satyrus (late third century BC) tells the story that Plato bought from Philolaus “three Pythagorean books” published by him, containing the previously unavailable teaching of Pythagoras. This famous *tripartitum* in Ionic prose included the following books: Παιδευτικόν, Πολιτικόν, Φυσικόν (D. L. 8.6, 9, 15); Diogenes Laertius quotes the opening words of the Φυσικόν: “Nay, I swear by the air I breathe, I swear by the water I drink, I will never suffer censure on account of this work.” Sotion of Alexandria (ca. 200 BC) in his *Successions of Philosophers* adds to the list of Pythagoras’ works two poems, *On the Universe* (Περὶ τοῦ ὅλου) and *Hieros Logos*, as well as *On the Soul*, *On Piety*, *Helothales*, *the Father of Epicharmus of Cos*, and *Croton* (D. L. 8.7). It is tempting to connect *On the Universe* with an astronomical poem which, according to Callimachus, was falsely ascribed to Pythagoras (Burkert 1972, 307). Cato (*De agric.* 157) and Pliny (*NH* 24.158) relied on a forgery known as *Pythagoras on the Effects of Plants*; Thesleff (1965, 174–177) prints several passages related to this book. One more pseudepigraphon, entitled Κοπίδεζ (D. L. 8.8–10), also belongs to the corpus of diverse writings fabricated under Pythagoras’ name before the first century BC. Now, what is available from them is mostly the titles, while information about their content is very meagre. Nevertheless, no scrap of this information is related to arithmology and only one to number symbolism.¹⁸ Similarly to other philosophers of the period, the Hellenistic Pythagoras is said to have written on physics, ethics, politics, and religion, and not on the Monad and Indefinite Dyad. He was at this point in his history still uncontaminated by the early Academic and Aristotelian interpretations of Pythagoreanism, which in the Hellenistic period were either unavailable or were for a long time forgotten as irrelevant.

¹⁸ According to the *tripartitum*, the life of a man is divided into four parts of twenty years – a child, an adolescent, a youth, and an adult – which corresponds to the four seasons (D. L. 8.8–10). An analogous passage is to be found in an anonymous biography of Pythagoras in Diodorus Siculus. It is based chiefly on Aristoxenus (Zhmud 2012, 72), in whose *Pythagorean Precepts* the various obligations of the same four age groups were discussed (fr. 35). The *tripartitum* and the *Anonymus Diodori* used the same source. – According to the same *tripartitum*, after 207 years in Hades Pythagoras has returned to the land of the living (D. L. 8, 14). What does this number mean is unclear. Cf. Rohde 1925, 599–600; Thesleff 1965, 171.21.

Attempts to find traces of Pythagorean arithmology in the Jewish historian Aristobulus (mid-second century BC)¹⁹ have been unsuccessful. Aristobulus wrote in the framework of the traditional number symbolism related to the number seven,²⁰ quoting many Greek poets from Homer to Solon on this account, but characteristically not Pythagoras (or the Pythagoreans), although he maintained that the Greek sage took his philosophy from the Jews (fr. 3a, 4a Holladay). The alleged Pythagorean connection rests solely on a late quotation in Philolaus' spurious work where, similarly to Aristobulus (fr. 5), seven is linked with light.²¹ A strained "Pythagorean" interpretation of a verse quoted by Aristobulus from "Linus," ἐβδόμη ἐν πρώτοισι καὶ ἐβδόμη ἐστὶ τελεΐη (fr. 5) does not add plausibility to this hypothesis either.²²

The role of Posidonius (ca. 135 – ca. 50 BC) in the emergence and transmission of arithmology was grossly overestimated by A. Schmekel (1892, 409-439), who relied on the fact that two of his fragments are preserved in the context of arithmological speculations by Theon of Smyrna and Sextus Empiricus.²³ By the 1920s Schmekel's critics had convincingly shown that Posidonius did not write an arithmological treatise.²⁴ However it took much longer to conclude on the basis of his safely attested fragments that Posidonius most probably did not even know the tradition represented by *An. Ar.*²⁵ His comment on the seven parts of the world soul in Plato's *Timaeus* (fr. 291 E-K) focuses on the correspondences between the number seven and natural events, whereas mathematical and mystical properties of seven or any other number are not mentioned.²⁶ He praises Plato for following *nature* and, basically, does not add anything new to what is said in the *Timaeus* (35b–36b). Posidonius' comment obviously belongs to the same line of thought that regarded the number seven as φυσικώτατος; it was represented by Solon in the sixth century, Alcmaeon, Heraclitus, Empedocles, Hippon, and the Hippocratic doctors in the fifth, and Plato, Aristotle, and Theophrastus in the fourth (see below, 338). This conclusion has an important chronological corollary:

19 Walter 1964, 155–158; Collins 1984, 1250–1253; Holladay 1995, 224–226.

20 "All the cosmos of all living beings and growing things revolves in series of sevens" (fr. 5).

21 44 A 12, rejected by Burkert 1972, 247 and Huffman 1993, 357. Walter 1964, 155 n. 2, gave credence both to A 12 and to the even more spurious B 20.

22 Holladay 1995, 193, 239 n. 166 follows an erroneous translation: "Seventh is among the prime numbers, and seventh is perfect." 1) Though seven is a prime number (πρώτος ἀριθμός), ἐν πρώτοις never means "among the prime numbers," but only "in the first numbers that make up the ratios" (2:1, 3:2, etc.), which Euclid defines as "numbers prime to each other" (πρώτοι πρὸς ἀλλήλους ἀριθμοί, 7, def. 13; Holladay confuses them with the prime numbers). See Eud. fr. 142, Archytas A 16, and Zhmud 2006, 215–218. To be ἐν πρώτοις one needs two numbers, not one. 2) Neither in the Pythagorean nor in the early Academic tradition does seven figure as the perfect number.

23 Fr. 85 E–K = Sext. Emp. 7.93; fr. 291 = Theon. *Intr.* 103.16–104.1.

24 See, e. g. Robbins 1920, 309–320; Staehle 1931, 13–15.

25 For attempts to revive the thesis of Posidonius as the transmitter of arithmology, see Burkert 1972, 54–56; Mansfeld 1971, 156–204. Cf. above, 324.

26 See Edelstein / Kidd 1972–1988, commentaries on fr. 85 and 291.

if Posidonius did not use *An. Ar.*, as Robbins believed, there are no other grounds to date it to the late second century. In fact, its first traces appear in the mid-first century BC.

Hence, no articulated arithmological passage is to be found in the early Hellenistic pseudo-Pythagorean literature or in other authors of this period for whom a connection with the arithmological tradition has been proposed. This is quite remarkable, since the next century brought a veritable flow of such texts. Varro was only twenty years younger than Posidonius, but lived long enough to borrow both from arithmology and from doxography, which, revealingly, also shows acquaintance with *An. Ar.* in its account of Pythagoras' philosophy. Many independent lines of evidence point to the conclusion that, after the first innovative step made by Speusippus, arithmology disappeared from the historical scene for about two centuries, whereas number symbolism continued to reproduce old and accumulate ever newer confirmations of the power of significant numbers. *An. Ar.* can be accounted for only in the context of the decisive philosophical turn in the first century BC which gave rise to Neopythagoreanism and added to the pseudo-Pythagorean writings a heavy touch of Middle Platonic metaphysics.

4 The first century BC

Starting from Antiochus of Ascalon's (ca. 130–68 BC) revival of the teachings of Plato and the Early Academy, namely of Speusippus and Xenocrates, to which Aristotle was added as a true "early Platonist," we constantly hear about *symphonia* between fundamental doctrines of Plato and Aristotle (Karamanolis 2006). It is from the point of view of this *symphonia* that the alleged doctrines of the ancient Pythagoreans begin to be conceived. "The content of the pseudo-Pythagorean writings results from a blending of Platonist and Aristotelian doctrines which is typical of Platonism beginning in the first century BC" (Centrone 2014, 336–337). Indeed, the most conspicuous feature that *An. Ar.* shares with the other pseudo-Pythagorean works of this time is Middle Platonism very superficially disguised as ancient Pythagoreanism. In this sense arithmology is just an offshoot of the interest aroused in Pythagoras and the Pythagoreans, in the first place among Platonically inclined philosophers. They tried to satisfy this interest by means which became available precisely in that time. Among the principal sources they used were, firstly, the oral teaching of Plato as presented by Aristotle, Speusippus, Xenocrates, and other early Academics, and, secondly, Aristotle's critical description of the Pythagorean theories in the *Metaphysics* as well as in other treatises and exoteric works. Thirdly, for the arithmological line of the tradition, Speusippus' *On Pythagorean Numbers* was of special significance, for it is here that the foundations of arithmology were laid. All these sources, as we see, belong to the second half of the fourth century BC, but it was not until two and half centuries later, that due to a new approach to them, a complex picture of ancient Pythagoreanism and its legendary founder emerged.

This newly created Pythagoras came to possess a combination of distinctive features, a key part of which had existed previously, but not necessarily in connection with his name. 1) First and above all, Pythagoras is concerned with numbers, which complies with the substance of the Pythagorean theories presented by Aristotle, though the latter never related them to Pythagoras himself. 2) So understood, Pythagoras is regarded mainly as the predecessor and teacher of Plato, along with Socrates, but more essential for Plato's later metaphysics. This is again what we find in Aristotle and the early Peripatetics, but not, for that matter, in the early Academics. 3) The principal doctrine of this Pythagoreanism (as preliminarily Platonized by Aristotle) is identified as Plato's theory of the two opposite principles, the Monad and the Indefinite Dyad, which is regarded as having been anticipated by Pythagoras. This point plainly contradicts the position both of Aristotle and of the early Academics, for they never projected this Platonic theory onto Pythagoras or the Pythagoreans.²⁷ This is, then, a completely new feature. 4) This dualistic theory is subjected to monistic interpretation, so that either the Monad is conceived as producing the Indefinite Dyad, or the third, highest principle is set above the basic opposites, as, for example, in the accounts of the Pythagorean theories by Eudorus of Alexandria (fl. about 25 BC) and Moderatus of Gades (first century AD).²⁸ Nothing of this sort is attested in the earlier sources. In order to elucidate the background against which the emergence of the arithmological genre is to be understood, I shall comment on each these points, proceeding in reverse order.

The tendency to attribute to Pythagoras or the Pythagoreans the Platonic doctrine of the Monad and the Indefinite Dyad appears for the first time in the *Pythagorean Hypomnemata* (turn of the first century BC),²⁹ transmitted by the grammarian Alexander Polyhistor (worked in Rome after 82 – about 35). The Pythagorean theories of the *Hypomnemata* (D. L. 8.24–35) are fairly heterogeneous and eclectic and this concerns in the first place the doctrine of principles:

The principle of all things is the Monad. Arising from the Monad, the Indefinite Dyad serves as matter for the Monad, which is its cause (ἐκ δὲ τῆς μονάδος ἀόριστον δυάδα ὡς ἂν ἕλην τῇ μονάδι αἰτίῳ ὄντι ὑποστήναι). From the Monad and the Indefinite Dyad arise numbers, from numbers points, from points lines, from lines plane figures, from plane figures solid figures, from solid figures sensible bodies, the elements of which are fire, air, earth, and water (8.25).

27 Burkert 1972, 62–65, 81–83; cf. Zhmud 2012, 421–432.

28 Eudorus: Simpl. *In Phys.* 181.7–30 = fr. 3–5 Mazzarelli; Moderatus: Simpl. *In Phys.* 230.34–231.24. See Doerrie / Baltes 1996, text: fr. 122.1–2, commentary: 473–485. See also Archytas, *De princ.* 19–20 Thesleff. Syrianus' commentary on the *Metaphysics* (166.3–8 Kroll) ascribes a similar triad – a highest principle above *peras* and *apeiria* – to Archaenetus (otherwise unknown), Philolaus and Bro(n)tinus (*De intell.* fr. 2 Thesleff), relying, therefore, on the pseudo-Pythagorean writings. See Merlan 1967, 84.

29 On the discussion of the dating, see Zhmud 2012, 423 n. 34.

As we see, the familiarly Platonic looking derivation of physical bodies from geometrical figures and numbers and ultimately from two highest principles has been revised here in the spirit of monism. This violated the original equality of the opposite *archai* by making the active Monad produce the Indefinite Dyad; the latter, respectively, became passive and material. Two basic tenets reveal the Stoic provenance of this way of thinking:³⁰ the Stoics maintained the difference a) between two *archai*, an active incorporeal principle (τὸ ποιοῦν) identified with reason (*nous*) and God, and a passive corporeal principle (τὸ πάσχον), identified with matter, and b) between ungenerated and indestructible *archai* and physical *stoicheia*. To be sure, Stoicism retained the fundamental dualism of its *archai*, in the sense that God never produces matter itself. In the realm of numbers and numerical principles, however, it seemed much easier for the Dyad to arise from the Monad, for this is exactly what happens in arithmetic. In an overview of the Pythagorean doctrines in Sextus Empiricus it is said that when the Monad is added to itself it produces the Indefinite Dyad (*Math.* 10.261). The Anonymus Photii (late first century BC) offers a still more resolutely monistic and mathematized version, where the Dyad is pushed far into the background (238a8–11).

This kind of Stoicized Platonism is manifested even more clearly in what the *Vetusta placita*, compiled in the school of Posidonius, passed off as Pythagoras' first principles: μονάς = τὸ ποιητικὸν αἴτιον καὶ εἰδικόν, ὅπερ ἐστὶ νοῦς ὁ θεός; ἀόριστος δυάς = τὸ παθητικόν τε καὶ ὑλικόν, ὅπερ ἐστὶν ὁ ὁρατὸς κόσμος.³¹ In the later accounts some of the Stoic features recede to the margins, but they undoubtedly belong to the original setting of this Neopythagorean system. Its author remains unknown; to my knowledge, he has never been even tentatively identified. At any rate, the system must have been created by a single mind rather than simultaneously by several authors. E. Zeller put its appearance at the turn of the first century BC, and that dating remains the most plausible.³² A Middle Platonic–Neopythagorean milieu, where Pythagoras was regarded as the predecessor of Plato's mathematically tinted metaphysics, and as the legendary sage whom Greek philosophy had to thank for all that was best in it, seems to provide the most natural context for this innovative doctrine. Thus, a decisive first step was made towards a new kind of Pythagoreanism which P. Merlan (1967, 91) aptly called "aggressive," for it laid claim to priority in the well known doctrines of Plato and the early Academics, Aristotle, and the Stoics. Reflecting changes of the philosophical climate, in the next two centuries this doctrine gained wide popularity, being attested in many pseudo- and Neopythagorean writings, as well as in biography and doxography.³³

30 For further references to this subject see Zhmud 2012, 423 n. 35.

31 Aët. 1.3.8 = *Dox.* 281a6–12; cf. 1.7.1. In Aetius, for the sake of brevity, the idea that the Monad generates the Dyad is omitted, but it can easily be restored.

32 Zeller 1919 I, 464–467; III.2, 103–106. For further discussion, see Zhmud 2012, 423 n. 34.

33 Pseudo-Pythagoreans (quoted by page and line of Thesleff 1965 edition): Anonymus Alexandri (D. L. 8.25); Anonymus Photii (237.17–23, 238.8–11); Bro(n)tinus (*De intell.* fr. 2); Calliocratides (fr. 1, 103.11); Pythagoras (*Hieros logos* in Doric prose, fr. 2, 164.24–26); Archytas (*De*

Now, in our sources this metaphysical system often appears accompanied by easily recognizable arithmological ideas. Though absent in the *Hypomnemata* (probably, because of their very concise exposition of principles) they are presented in three other important accounts of Pythagorean philosophy: Aetius (i. e. his source, the *Vetusta placita*), the Anonymus Photii, and Sextus Empiricus. Aetius (1.3.8) and the Anonymus Photii (238.1–3) state, for example, that the decad is the nature of number since all people count to ten and then turn back to the one; that the four is the decad δυνάμει and therefore is called the *tetractys*, and so on. Aetius (1.3.8) and Sextus Empiricus (*Adv. Math.* 4.2; 794) quote two verses of the famous Pythagorean oath, where the *tetractys*, the “source of everlasting nature,” is attested for the first time; the Anonymus Photii also refers to the *tetractys* (238.1–3). According to Robbins’ (1920, 310–315) convincing suggestion, the oath, clearly alluded to in Philo as well,³⁴ formed part of an introduction to the pseudo-Pythagorean arithmological treatise. The existence of *An. Ar.* is, therefore, presupposed in these sources.

This is one side of the coin. On the other side, all the arithmological writings starting with Philo’s work *On Numbers*, the earliest and the most complete specimen of the genre (Staehle 1931, 1–11), contain conspicuous traces of the metaphysical system described above. Those that occur most frequently among them are the following:³⁵ the Monad by its nature is equal to God and reason (4a–c, h); it generates all the other numbers but is not generated in itself (5e); the Dyad “flows” from the Monad (8); the Dyad embodies the material principle (11b). This deep interpenetration of the doctrines leaves no doubt that arithmology as a genre and the Neopythagorean system of principles derive from the same philosophical milieu. They share a great deal in common, including their presuppositions and sources, on which we shall dwell later. By the early first century BC the system must have already been formed, for it is reflected in the *Pythagorean Hypomnemata* and the *Vetusta placita*.³⁶ From such a perspective, *An. Ar.* looks like an offshoot of the newly developed number metaphysics, with a more narrow focus on number speculations of various kinds – in the same way as the book of Speusippus, the *Urvater* of arithmology, arose against the background of Plato’s number philosophy. In the late fourth century Aristotle’s criticism, and the emergence of the new philosophical systems, Stoicism and Epicureanism, changed the atmosphere in the Academy and made number speculations obsolete. Middle Platonism and Neopythagoreanism successfully brought them back and made them an integral part of their philosophizing.

princ. 19–20). Influenced by Neopythagoreanism: Eudorus (Simpl. *In Phys.*, 181.7–30). Neopythagoreans: Moderatus (ibid., 230.34–231.24); Numenius (fr. 52 Des Places). Doxography: Aët. 1.3.8 (= *Dox.* 281.6–12) and 1.7.18; Anonymus in Sextus Empiricus (*Adv. math.* 10.261–262).

³⁴ See below, 341 n. 70.

³⁵ Numbers in brackets refer to Staehle’s 1931 collection of the parallels to Philo’s arithmology.

³⁶ Centrone 2014, 336–337 follows Zeller 1919, III.2, 113–114, in suggesting Alexandria as the most probable site of its emergence.

5 Plato Pythagoricus

One of the central presuppositions of the system described above consists in featuring Plato as the legitimate successor of Pythagoras and the Pythagoreans in a fully positive way, in defiance of what was told about this connection before. To be sure, an influential theory developed by Burkert (1972, 82) states that it was already Speusippus, Xenocrates, and Heraclides who equated “the doctrine of their master Plato, and therewith also their own philosophical positions, with the wisdom of Pythagoras.” This theory implies that Speusippus and Xenocrates were the fathers of Neopythagoreanism, and they are so treated, for example, by J. Dillon.³⁷ However the evidence available to us does not support the thesis that the early Academics projected Plato’s unwritten doctrine onto Pythagoras.³⁸ Indeed, Plato himself blurred over his dependence on the Pythagoreans, so why should the Platonists understate the originality of their teacher, who mentioned Pythagoras just once and even then only as an originator of the ‘Pythagorean way of life’ (*Resp.* 600a–b)? Revealingly, in the fourth century and later, Plato’s dependence on the Pythagoreans (not yet Pythagoras himself!) is affirmed in a tradition that is either critical of him, in Aristotle and the Peripatetics, or openly hostile, in stories of his plagiarism from the Pythagoreans.

The idea of plagiarism evolved roughly in the following way.³⁹ The historian Theopompus, a student of Plato’s chief rival Isocrates, in a special work against Plato, was apparently the first to accuse him of plagiarizing not the Pythagoreans – it is true – but Aristippus, Antisthenes, and Brison (*FGrHist* 115 F 259). This idea was taken up by Aristotle’s student Aristoxenus, who asserted that Plato copied his *Republic* from Protagoras (fr. 67 Wehrli). Whether he accused Plato of copying from the Pythagoreans, we do not know, but in the succeeding generation this version was popularized by Neanthes and Timaeus of Tauromenium (D. L. 8.54–55). A slightly later version, that Plato had copied his *Timaeus* from Philolaus’ book, has reached us via Timon of Phlius (fr. 54) and the biographer Hermippus (D. L. 8.85), whereas Satyrus replaced Philolaus’ book with Pythagoras’ *tripartitum*, mentioned above.⁴⁰ This made Plato entirely dependent on Pythagoras himself. Obviously, most of these stories come from the biographical tradition, which, beginning with its founder Aristoxenus (frs. 32, 62, 131), was very much disposed to inventing malicious anecdotes about Plato. Unsurprisingly, the attitude of the Early Academy was the direct opposite. The Seventh Letter attempts to prove, it seems, that Archytas (who never appears in the dialogues) was much weaker than Plato in philosophy and therefore could not have had any influence on him (Lloyd 1990). According to the Academic legend of the mid-fourth century, the famous problem of doubling the cube was solved by Archytas, Eudoxus, and

37 Dillon 1996, 38; Dillon 2003, 204.

38 For fuller discussion of the sources, see Zhmud 2012, 421–432.

39 See Brisson 1993; Dörrie / Baltes 1996, 473–485.

40 Above, 326; see Schorn 2004, 358–364 (F 10).

Menaechmus working under instructions from Plato and under his control.⁴¹ A contemporary Academic source, preserved in Philodemus' *History of the Academy*, ascribes to Plato an even more significant role as architect of the mathematical sciences: "At this time *mathemata* were also greatly advanced, with Plato being the architect of this development; he set problems for the mathematicians, who in turn eagerly studied them."⁴² The picture of Plato giving instructions to Archytas, the latter's student Eudoxus, and Eudoxus' student Menaechmus was further embellished in Eratosthenes' dialogue *Platonicus*. This, then, was the attitude of Plato and the Early Academy towards Pythagorean mathematics.

In the first century BC the situation radically changes, so much that Plato's intellectual indebtedness to Pythagoras was not only willingly recognized but became a cornerstone of later Platonism. Cicero, following a new biographical vulgate, several times reports the same narrative: Plato came to Italy and Sicily in order to meet the Pythagoreans and to appropriate their dogmata, of which Socrates had not even wanted to hear; Plato became acquainted with Archytas, Echecrates, and Timaeus of Locri, got access to Philolaus' book, learned all the Pythagorean teaching, first of all their *mathemata*, and made it more argumentative; out of love for Socrates, however, he ascribed this Pythagorean *sapientia* to his teacher.⁴³ Therefore, Plato becomes an acknowledged *diadochos* of Pythagoras and a student of Archytas, in which role he figures in Pythagoras' biography in the Anonymus Photii (237.5–7); Aristotle here turns into the next *diadochos*, which is logical from the perspective of the *symphonia* between him and Plato which had recently been asserted. This biographical pattern has undoubtedly been modified in order to adjust to the new interest in Plato's number metaphysics, because it could be accounted for only by his heavy debt to Pythagoreanism. The natural consequences of this new approach can be seen in the retrospective projection of Plato's (Stoically coloured) doctrine of principles, the Monad and the Indefinite Dyad, onto Pythagoras and, which is even more relevant for us, the appropriation of Speusippus' and other Early Academic arithmological schemes in the process of creating the Neopythagorean arithmology. But before coming to this issue it is important to recall the exceptional role of Aristotle in the appearance of the image of Plato Pythagoricus, because, historically speaking, this image was not in fact new in the first century BC.

6 Aristotle on Plato and the Pythagoreans

However sceptical an attitude one may have towards the story of Neleus of Scepsis' cellar as the *only* place where Aristotle's and Theophrastus' esoteric works were preserved, it is clear that in the third and second centuries BC they had fallen out of circulation. Even if some Hellenistic library did possess a copy of

41 See Zhmud 2006, 82–108, with a bibliography of the question.

42 Dorandi 1991, 126–127; Zhmud 2006, 87–89.

43 *Resp.* 1.15–16; *Tusc.* 1.39; *Fin.* 5.86–87. Dörrie / Baltes 1996, 250–256, 526–536.

what we know as Aristotle's *Metaphysics*, there is no evidence whatsoever that it was read and produced a philosophical reaction.⁴⁴ The growing awareness of Aristotle's importance during the first century BC was prompted, though not exclusively, by two editions of his principal esoteric treatises, first by Apellicon of Teos (ca. 100–90), and then by Andronicus of Rhodes (ca. 70–60), of which the latter subsequently became canonical. The rediscovered corpus of Aristotle's writings offered a philosophical portrait of Plato significantly different from that known from the dialogues. As distinct from Plato's tendency to obfuscate his debt to his predecessors, Aristotle regularly presented him, especially in the doxographical overview in *Metaphysics* A 3–7, as following the Pythagoreans in his *Prinzipienlehre*.⁴⁵ To Aristotle, Plato's unwritten doctrine of principles acquires its historical meaning only against the background of Pythagorean teaching and vice versa: the basic function of Pythagorean number doctrine lay in serving as the main source of Plato's late metaphysics. The pithy words attested for the first time in Aetius, Πλάτων δὲ καὶ ἐν τούτοις πυθαγορίζει, can easily be put into Aristotle's mouth, for he insistently pointed out the kinship between the doctrines of Plato and the Pythagoreans, while noting their *differentia specifica*. But sometimes, as for example in his report of Plato's famous lecture on the Good, he portrays them as being practically indistinguishable, thus taking a decisive step towards the metaphysical doctrine known to us from the first-century sources:

Both Plato and the Pythagoreans assumed numbers to be the principles of the existing things, because they thought that that which is primary and incomposite is a first principle, and that planes are prior to bodies..., and on the same principle lines are prior to planes, and points (which mathematicians call *semeia* but they called units) to lines, being completely incomposite and having nothing prior to them; but units are numbers; therefore numbers are the first of existing things.⁴⁶

It is easy to recognize that this Platonic and Early Academic derivation of points from units, which is to say numbers, and the further generation point – line – plane – body exactly corresponds to what the *Pythagorean Hypomnemata* and other philosophical and arithmological sources pass off as the doctrine of the Pythagoreans. If we add to this the first principles of numbers, the Monad and the Dyad, mentioned a bit later, the match becomes perfect.

Aristotle's students adopted from him a tendency to see Plato as the follower of the Pythagoreans. Thus the statement of Dicaearchus, that Plato in his teaching combined Pythagoras and Socrates (fr. 41), is a direct echo of the description of Plato in the *Metaphysics* (987a–b13).⁴⁷ Eudemus in his *Physics* (fr. 60) compares Archytas' idea, that the causes of motion are ἄνισον and ἀνώμαλον, with Plato's

44 Düring 1968, 192; Moraux 1973, 3–44; Gottschalk 1997, 1085; Sharples 2010, 24–30.

45 *Met.* 987a31. b10. b22, 990a30; see also 996a6, 1001a9, 1053b12.

46 Alex. *In Met.* 55.20–27 = *De bono*, test. and fr. 2 Ross. Cf. below, 337.

47 Cf. above 333 n. 43.

Prinzipienlehre, with his preference going to Archytas; he also praises the Pythagoreans and Plato for relating ἀόριστον to motion. Theophrastus in his *Metaphysics* (11a27–b10) lumps together Plato and the Pythagoreans by ascribing to them Plato's doctrine of ἔν and ἀόριστος δυνάς. Together with Aristotle's *De bono* (fr. 2), this text constitutes the closest antecedent to what in Neopythagoreanism became a standard view.

Thus the first century BC was the moment at which all the relevant lines of influence intersected and supplemented each other, and a number of important developments took place that would eventually give rise to arithmology as a genre: the revival of a Platonism that included the theories of Speusippus and Xenocrates; the rediscovery of Aristotle, this time as a Platonist; the reappearance of Plato as the follower of the Pythagoreans, but now in a positive sense, and the corresponding transformation of Pythagoras into an author of Platonic and Early Academic number philosophy, which with some new features added became the metaphysical foundation of Neopythagorean arithmology – all this did not exist before the first century. This dooms to failure any attempt to connect arithmology directly with ancient Pythagoreanism. In order to find out whether or not an *indirect* connection is possible, we have to go back again to the fourth century, namely to the Early Academy.

7 Τέλειος ἀριθμός and the birth of the arithmological system

Number symbolism does not possess any intrinsic limit to significant numbers. Though they naturally tend to concentrate within the first decad, other numbers like 12, 13, 30, 40, and 50 could be equally important. The number ten in itself, although important in counting, does not play any noticeable role in traditional number symbolism. Unlike three, four, or seven, the number ten is not a symbol of a particular notion, thing, or group of things. Its symbolism is purely mathematical and its completeness, unlike the completeness of the three that stands for “all,” consists of embracing “the entire nature of numbers.” Beyond the world of numbers it does not seem to correspond to anything, so that the Pythagoreans, according to Aristotle, had to invent a new heavenly body for it! In this sense the birth of arithmology can be conceived as the process of limiting the traditional lore by a new conceptual framework imposed on it by an influential philosophical doctrine which attached great value to the number ten.

The doctrine in question is, of course, the unwritten doctrine of Plato, which comprises a theory of ten ideal numbers, or Forms-Numbers. Their generation serves as a model for the generation of all other numbers. When Aristotle refers to the theory of the ten archetypal numbers, he obviously has Plato in mind,⁴⁸ and in *Physics* 206b27–33 he directly names Plato (μέχρι γὰρ δεκάδος ποιεῖ τὸν ἀριθμόν). This is why the decad was counted as the perfect, or complete number. To be sure,

48 1073a17–22; 1084a12–b2: πειρῶνται δ' ὡς τοῦ μέχρι τῆς δεκάδος τελείου ὄντος ἀριθμοῦ (a31); 1088b10–11. On Plato's teaching on decad, see e. g.: Dillon 1996, 4–5; Erler 2007, 427–428

in Plato's dialogues ten was not yet called a perfect number; τέλειος ἀριθμός refers in one case to the so-called nuptial number, and in the other to the great year.⁴⁹ This suggests, inter alia, that before Plato there was hardly any doctrine on the decad as τέλειος ἀριθμός. It appears for the first time in Speusippus' *On Pythagorean Numbers*, half of which was devoted to the marvellous properties of the decad (fr. 28). Speusippus rejected the theory of the Forms and replaced the ideal numbers with mathematical ones, and Xenocrates identified the ideal and the mathematical numbers, so that for them "*mathemata* have become a philosophy, although they say that *mathemata* should be studied for another reason" (Arist. *Met.* 992a31). A comparison of the basic features of arithmology, as reflected in Philo's work *On Numbers* and the abundant parallels to it in the later texts, with the theories of Speusippus and Xenocrates reveals how much this genre owes to them.

Whereas *An. Ar.* comprised an introduction and ten chapters devoted to the respective numbers, Speusippus' work does not yet exhibit this form, which is classical for arithmological literature. Speusippus' work consisted of two parts, the first of which dealt, according to the excerptor, with different kinds of numbers: linear, plane, solid, and so on, continuous and discontinuous proportions, and the five regular solids. In the second part appear other types of numbers, such as prime and composite, as well as multiple and epimoric ratios, and numerical progressions. At first sight, the subject looks more arithmetical than arithmological, but Speusippus' treatment of it was mathematical only to a very limited extent. He could assert, for example, that in an equilateral triangle in a certain sense there is one side and one angle! Saying that in the decad there are equal numbers of prime (1, 2, 3, 5, 7) and composite (2, 4, 6, 8, 10) numbers, he makes one a prime number, although in that case all the other numbers become composite (see Euc. 7, def. 12, 14). Anyway, most of these things go back to Pythagorean arithmetic, harmonics, and geometry (three regular solids were also constructed by them), and, if the title *On Pythagorean Numbers* is Speusippian (which is not certain: Tarán 1981, 262), it most probably referred to mathematical material which he used for his own paramathematical purposes.⁵⁰

In the second part, better known to us thanks to a two-page quotation from it, Speusippus sets out his variant of the Academic doctrine of the decad, thus laying the foundations for the arithmological system. Its most conspicuous feature is that he focuses not on the correspondences between numbers and things, but on numbers and geometrical figures themselves and the interconnections between them. Such an emphasis is perfectly understandable insofar as for Speusippus numbers constitute the first layer of beings,⁵¹ with magnitudes coming after

49 *Resp.* 546b–d; *Tim.* 39d3–4. In mathematics τέλειος ἀριθμός is equal to the sum of all its divisors, e. g. $6 = 1 + 2 + 3$, but this meaning is not attested before Euclid (7, def. 22; 9, 36).

50 "It is intelligible, then, that he should have called the 'linear', 'triangular' etc. numbers 'Pythagorean numbers'" (Tarán 1981, 263). On Speusippus' independence from the Pythagoreans see Tarán 1981, 109, 260, 269–276; Huffman 1993, 361.

51 Arist. *Met.* 1083a23 = Speus. fr. 34, 1075b37–1076a3 = fr. 30; 1080b11–16 = fr. 33.

them. He does not seem to be primarily motivated by traditional number symbolism: the numbers three, seven, or nine do not interest him as such; instead he is fixated on four and ten, since they are the pillars of Platonic number metaphysics. Speusippus' interest was primarily philosophical and this is what gave arithmology a completely new dimension. In fact, his deliberate focus on mathematics was too radical and refined to be directly followed in a popular philosophical genre. The author of *An. Ar.* had to take a considerable step back by returning again to traditional number symbolism and applying it to the conceptual framework created by Speusippus. What we observe in the later arithmological texts is, as it were, Speusippus "lite:" they are not so heavily metaphysically loaded and contain much entertaining material on the parts of the human body, seven- and nine-month babies, and so on.

According to the Academic doctrine, ontological priority resides with that which can exist without another. Bodies are less substance than planes, planes than lines, lines than points, and points than units,⁵² since "a unit is substance without position, while a point is substance with position," which is to say that the latter contains an additional property.⁵³ Thus, numbers are by nature first. Respectively, the line is derived from the point (a variant: is produced by a moving point, *De an.* 409a4–7), the plane from the line, and the body from the plane, and this derivation sequence is closely connected to the first four numbers, for Speusippus, for example, associated the point with one, the line with two, the plane with three, and the pyramid with four. Schemes of generation of magnitudes are attested for Speusippus and Xenocrates,⁵⁴ and Aristotle attributed to Plato the derivation of line, plane, and solid "after numbers" or even from numbers.⁵⁵ In his tract Speusippus tirelessly connects the number four with the decad, being very enthusiastic about the transformation of the tetrad into the decad: $1 + 2 + 3 + 4 = 10$. The number ten contains all kinds of number, he asserts,

including the linear, plane, and solid numbers. For 1 is a point, 2 is a line, 3 is a triangle, and 4 is a pyramid; all these are elements and principles of the figures like them. In these numbers is seen the first of progressions... and they have 10 for their sum. The primary elements in plane and solid figures are point, line, triangle, pyramid, they contain the number ten and are limited by it (fr. 28).

Arithmology echoes this scheme by regularly equating one with the point, two with the line, three with the triangle, and four with the pyramid.⁵⁶ The dyad is

⁵² Arist. *Met.* 1002a4–8, 1019a1–4; 1017b6–21; *De bono* fr. 2 (above, 334 n. 46).

⁵³ Arist. *APo* 87a35–37 See also *Met.* 982a26–28 and above, 334. A point as a monad having position is an Academic formula (Burkert 1972, 67).

⁵⁴ According to Speusippus, a point is the *arche* of line (Tarán 1981, 268). Xenocrates fr. 117 Isnardi Parente.

⁵⁵ *De an.* 404b19–24. See also Arist. *Met.* 1090b21–24 = Xenocr. fr. 38 Isnardi Parente.

⁵⁶ 6a–b (one), 14a–c (two), 19a–e (three), 26a–d (four). The numbers here refer to Staehle 1931.

generated by the “flow” (ῥύσις) of the monad, the line by the “flow” of the point, and the plane by the “flow” of the line.⁵⁷ The tetrad is the “origin” and “source” of the decad (47a–b). Seven within the decad is neither a quotient nor a divisor.⁵⁸ The decad is most perfect, it encloses all types of numbers and numerical relations; all people count to ten and then turn back.⁵⁹ This common stock of arithmology goes back to Speusippus. That the addition of odd numbers produces a square number, while the addition of even numbers produces an oblong number (13a), is once alluded to in Aristotle with reference to the Pythagoreans (*Phys.* 203a3–16), but his notice is very unclear; it is more likely that the source of this was Speusippus, who treated plane numbers in his book.

According to Aristotle, the matching of various types of cognitive activity to the first four numbers (νοῦς 1, ἐπιστήμη 2, δόξα 3, αἴσθησις 4) is derived from Plato, who put forward these types themselves.⁶⁰ In the *Timaeus* (47e) the Demiurge is identified with *nous*. Xenocrates, following Plato, identified *nous* with τὸ ἐν (fr. 213) and with God, and Speusippus declared God to be *nous* (fr. 58). Arithmology invariably associates the monad with God and mind (4a–c, h), whereas other correspondences are more fluid. The doctrine that the dyad is the first female number and the triad the first male number also seems to originate with Xenocrates, who assigned such predicates as ἄρρεν–θῆλυ and περιττὸν–(ἄρτιον) to his first principles Μονάς and Δύας.⁶¹ Aristotle agreed with the Pythagoreans that three is τέλειος ἀριθμός, for it signifies totality (see above, 324); he could have been the source of this idea in arithmology.

8 Pythagorean roots of arithmology?

If the conceptual foundations of the arithmological system were laid down by Plato and his students Speusippus and Xenocrates, what then was the historical role of the Pythagoreans in the formation of the intellectual tradition which is so firmly and universally connected with them? Pythagorean arithmology stands or falls with Aristotle’s account of Pythagorean number philosophy, for he was the only one who ascribed to the (unnamed and unknown) Pythagoreans such notions as the significance of the decad, the likening of types of cognitive activity to numbers, and so on. Other classical sources are silent on this. What is more important is that, in the authentic fragments of the individual Pythagoreans and in the reliable evidence on them, arithmology is not to be found, as distinct from the traditional number symbolism.⁶² One of the early responses to Solon’s elegy on seven-year periods has come down from Alcmaeon of Croton, who stated that

57 8a, 14a–c, cf. Speus. fr. 52.

58 43a–k, cf. Speus. fr. 28, l. 30.

59 86a–c, 87a–b, 88–89a–k, 90a–b, 92.

60 *De an.* 404b19–24. On types of cognition in Plato: *Phaed.* 96b, *Parm.* 142a, 151e, 164a, *Tim.* 37b–c, *Phil.* 21b; in Aristotle: *APo* 88b34–89a2, 100b4–17; *De an.* 428a3; *Met.* 1074b34–36.

61 *Aët.* 1.7.30 = fr. 213; Dörrie / Baltes 1996, 192–194; Dillon 2003, 99–107.

62 The fragments on the decad of Philolaus (A 11–13, B 11) and Archytas (B 5) are spurious.

young men achieve sexual maturity at the age of twice seven (24 A 15). To this division of life into periods of seven years, Presocratic philosophy and Hippocratic medicine added analogous notions regarding the development of the foetus, divided into weeks and months. A similar combining of the embryological calendar with the division of life into periods of seven is found in Hippon, the Pythagorean natural philosopher of the mid-fifth century. In an attempt to take into consideration data derived from experience, in his calculations, in addition to the number seven, he makes use of the still more significant number three:

<...> After the seventh month, our teeth begin to emerge and then they fall out in the seventh year; <...> But this maturity which begins in the seventh month is prolonged to the tenth, because the same natural law applies to everything, so that three months or years are added to the original seven months or years to bring things to completion. So the child's teeth are formed in the seventh month but not completed until the tenth; the first teeth fall out in the seventh year, the last in the tenth; most have reached puberty after fourteen years, but everyone has by seventeen (38 A 16, tr. H. N. Parker).⁶³

Obviously, Hippon or any other Pythagorean could have had a preference for seven or three, but such preferences are not in themselves Pythagorean: Aristotle also had a predilection for both these numbers. Usually critical of the Pythagoreans, he concurred with them on the triad (*Phys.* 268a10–20) and insisted that the rainbow necessarily has only three colours (*Mete.* 374b28–375a7). Similarly, the number of colours, tastes, and vowels necessarily equals seven (*De sensu* 442a19–25, 446a19). Theophrastus adds odours to colours and tastes, calling the number seven *καιρώτατος* και *φυσικώτατος* (*CP* VI,4,1–2). The Pythagoreans also connected *καιρός* with the number seven, making use of the same traditional notions as Aristotle and Theophrastus. In the same way they connected justice with the number four, because justice “returns like for like.” In such and similar examples which, in fact, are not as numerous as is usually believed,⁶⁴ we do not find specific features of arithmology, as described above. Pythagorean number symbolism has a pre-philosophical origin and mainly coincides with non-Pythagorean number symbolism.⁶⁵ Where numbers are conceived as the members of the series limited by the ten, we can detect the influence of the Academy.

Aristotle, however, regarded the Pythagoreans as the philosophical predecessors of Plato's unwritten doctrine (Zhmud 2012, 415–452). It seems only natural, then, that he was the first to ascribe to them directly the theory of ten as a perfect number:

63 What is important here, is the sum of seven and three: $7 + 3 = 10$, $7 + 7 + 3 = 17$, etc.

64 *Met.* 985b29–30, 990a23, 1078b22–23; *EN* 1132b23; *MM* 1182a11; fr. 13 Ross.

65 Pherecydes (7 B 1), Ion of Chios (36 B 1), and Hippodamus (39 A 1) attached special significance to the number three, Empedocles to four and seven (31 A 75, 83, B 153a).

Since the number ten is considered to be τέλειος and to comprise the whole nature of numbers, they also assert that the bodies which revolve in the heavens are ten; and there being only nine that are visible, they make the counter-earth the tenth.⁶⁶

This is, of course, only his interpretation of Philolaus' astronomical system, for how plausible is it that Philolaus would have devised an invisible planet solely for the sake of a round figure, and that he directly said so? Arithmology does not invent things, but fits them into numbers or derives numbers from things available, of which there are always sufficient to produce the desired combination. Elsewhere Aristotle gives another, astronomical explanation of Philolaus' motives for introducing the counter-earth (58 B 36), which is much more persuasive than an arithmological explanation (Zhmud 2012, 406–407). Further, Philolaus introduced *two* invisible heavenly bodies: Hestia, or Central Fire, and the counter-earth, which revolved with the earth around Hestia. Had he wished to bring the number of heavenly bodies to ten, he could have stopped with Hestia, which was the tenth. The counter-earth could only appear in his system after Hestia, hence being the eleventh heavenly body! Certainly Aristotle speaks of ten *rotating* bodies, leaving the stationary Hestia out of the ten. But if Philolaus had wished to count Hestia too, the fact that it was motionless would hardly have stopped him.

If the number ten in the eyes of the Pythagoreans had such magical power that for its sake Philolaus invented a new planet, this belief should have left numerous traces, similar to those left by the numbers three and seven. In fact, the only other example of this account is the famous table of the ten pairs of opposites that Aristotle ascribes to a separate group of Pythagoreans (*Met.* 986a22–b8). Most experts agree now that it contains both Pythagorean and Academic material (Burkert 1972, 51), it is only the proportions which are disputed. True, the table begins with the pair limit-unlimited, known from Philolaus, but does this guarantee its Pythagorean origin as a whole? Such pairs as warm and cold, dry and wet, sweet and bitter, typical of the Pythagoreans and the Presocratics in general, are absent from the table. The combination of even and odd with left and right first appears in Plato's *Laws* (717a–b). According to Aristotle, the pairs at rest and moving, and good and bad, are typically Platonic (*Met.* 1084a35), being derived from his ἀρχαί, the One and the Indefinite Dyad. One and plurality are not only a Platonic principle; they constitute the cornerstone of Speusippus' philosophy. The male-female pair was significant to Xenocrates, who linked it to another pair, even-odd (fr. 213). It is known that Speusippus and Xenocrates had a series of op-

⁶⁶ *Met.* 986a8–12. It is worth noting that Aristotle does not speak of the Pythagorean *origin* of this doctrine; rather, he refers to an already existent theory which is supported also by the Pythagoreans.

posites similar to those of the Pythagoreans.⁶⁷ Aristotle himself evidently thought in terms of a universal table of opposites, of which the “Pythagorean table” was a particular instance. Sometimes he mentions it as if it were Academic.⁶⁸ Thus, however much the table ultimately derives from the Pythagorean tradition in its detail, in its final form of the *ten pairs of distinct kindred opposites*, it was created by somebody very well versed in the teaching of Plato and the Platonists.

The second pillar of arithmology is the tetrad, the “source” of the decad. In the Pythagorean tradition it is even less traceable than the decad, if we discard the likening of justice to reciprocity and thus to the number four. Revealingly, Aristotle mentions the tetrad only when discussing the generation of numbers and geometrical figures by Plato and the Platonists,⁶⁹ and never relates it to the Pythagoreans. Obviously, he knew nothing of the famous tetractys which in the modern scholarship figures as a “kernel of Pythagorean wisdom” (Burkert 1972, 72). Τετρακτύς is a special term for a group of the first four numbers which make ten (later, other kinds of tetractys were devised). Since the numbers of the tetractys express the ratios of the basic concords,⁷⁰ it was regarded as being intimately related to music; one of the Pythagorean “symbols,” quoted by Iamblichus, says: “What is the oracle at Delphi? The tetractys, which is the harmony in which the Sirens sing” (VP 82). The tetractys may appear thoroughly archaic, but is in fact a Neopythagorean edifice. The ancient Pythagoreans did indeed assign special significance to the numbers that expressed concords, but in harmonics what interested them was not numbers as such, but their ratios, λόγοι. The fact that the ratios of the basic concords consist of the first four numbers, which add up to ten, is more likely to please lovers of arithmology, such as Speusippus, than a mathematician. The number ten plays no part in harmonics and, as I have tried to show, bears no relation to ancient Pythagoreanism.

The word τετρακτύς appears for the first time in the Pythagorean oath, which was quoted almost simultaneously by *An. Ar.* and the *Vetusta placita* (above, 331). In the same first century BC the τετρακτύς was mentioned by the Anonymus Photii (439a8) and alluded to in Philo.⁷¹ The Pythagorean oath is a typical specimen of pseudo-Pythagorica:

Οὐ, μὰ τὸν ἀμετέρα κεφαλᾶ παραδόντα τετρακτύν
παγὰν ἀενάου φύσεως ὀρίζωμά τ' ἔχουσιν (Aët. 1.3.8).

67 Speusippus: Arist. *Met.* 1085b5, 1087b4, b25; 1092a35. For Xenocrates one could reconstruct the following table of opposites: μονάς-δυάς, ἄρρεν-θῆλυ, Ζεὺς-μήτηρ θεῶν, περιπτόν-ἄρτιον, νοῦς-ψυχή (fr. 213).

68 See for example: *Phys.* 189a1–5, 201b21–27; *Met.* 1004b27–35, 1093b11–14.

69 *Met.* 1081a23, b15–22; 1082a12–34, 1084a23; 1090b23.

70 2:1 the octave, 3:2 the fourth, 4:3 the fifth.

71 He sets forth in detail the same doctrine of the τέλειος τετραάς as the decad *in potentia*, which Aetius attributes to Pythagoras: *De opif.* 47–53, 97–98; *De plant.* 123–125; *De vita Mosi* 2.115.

No, I swear by him who gave the tetractys to our head,
which has the source and root of everlasting nature.

Its spuriousness is clear from the pseudo-Doric dialect (φύσεως is an Attic form), and the verse form, which is not attested in authentic oaths, and the fact that Pythagoras is not named in it (according to Nicomachus, the Pythagoreans did not call Pythagoras by his name.⁷² It is significant that before the mid-first century BC the expression φύσις ἀέναος is used only by Posidonius.⁷³ Xenocrates designated the second of his two principles ἀέναος (fr. 101), “ever-flowing,” “everlasting,” but one should not identify a reference to the Pythagorean oath here.⁷⁴ Ἀέναος is abundantly attested before Xenocrates, both in poetry and prose, in Plato amongst others,⁷⁵ and to connect it with the oath first attested in the mid-first century BC is quite pointless.

The only evidence that *could* save the historical authenticity of the τετρακτύς is the Pythagorean “symbol” which mentions the tetractys as the harmony of the Sirens. The tradition of the Pythagorean “symbols”, to which Iamblichus attached the word (popular among modern scholars) *akousmata*, goes back to the archaic period and even earlier.⁷⁶ Some proportion of the “symbols” known in Antiquity did actually exist in the sixth–fifth centuries BC, but the problem with our symbol is that it is found *only* in Iamblichus and in no other ancient writer. Although the collection of symbols in Iamblichus’ *De vita Pythagorica* 82–86 as a whole goes back to Aristotle’s book *On the Pythagoreans*, it is clear that Iamblichus did not use Aristotle himself but an intermediate source, in which the early symbols may have been diluted by later ones. Now, it is not difficult to find out that the harmony of the Sirens (without the tetractys) figures twice in Plato’s *Republic* (and *nowhere* earlier), in the passage in which the famous heavenly harmony is described.⁷⁷ Thus the symbol adduced by Iamblichus is not the “higher wisdom” of the ancient Pythagoreans, but a combination of Plato’s harmony of the Sirens with the late Hellenistic pseudo-Pythagorean tetractys. The tetractys, for its part, arose from the tetrad extolled by Speusippus in his work *On Pythagorean Numbers*.

Presenting the Pythagoreans in the *Metaphysics* A, Aristotle mentions three concepts in which they saw “resemblances” with the numbers: ψυχή καὶ νοῦς, καιρός and δικαιοσύνη, but he immediately indicates that the list is open-ended (985b26–31). In Book M, however, he specifies that the Pythagoreans explained

72 Iamb. VP 88. The legendary phrase αὐτὸς ἔφα (ἔφα is Doric) that occurs first in Cicero (*ND* 1.10), belongs to the same pseudo-Pythagorean milieu.

73 Fr. 239 E–K. The publishers of his fragments see in this a reference to the Pythagorean oath, but the reverse influence seems more easily arguable on chronological grounds.

74 As Burkert 1972, 72 and Dillon 1996, 100.

75 See *LSJ*, s. v. ἀέναος; Crit. 88 B 18.1–2 DK; Plat. *Leg.* 996e2 (ἀέναος οὐσία).

76 For a full discussion of the symbols see Zhmud 2012, 192–206.

77 ἐπὶ δὲ τῶν κύκλων αὐτοῦ ἄνωθεν ἐφ’ ἐκάστου βεβηκέναι Σειρήνα συμπεριφερομένην, φωνὴν μίαν εἰσιαν, ἓνα τόνον· ἐκ πασῶν δὲ ὁκτώ οὐσῶν μίαν ἀρμονίαν συμφωνεῖν (617b4–7); πρὸς τὴν Σειρήνων ἀρμονίαν (617c4).

only a few things by means of numbers, such as *καὶρός*, or justice, or marriage (1078b21–23). Justice and *καὶρός* occur several times elsewhere,⁷⁸ marriage and *ψυχὴ καὶ νοῦς* only once; what numbers are attached to them, is not said. If we add to them the number three as the symbol of an “all” (*Phys.* 268a10–20), it will exhaust the list of the Pythagorean likenings of concepts to numbers which appear in the treatises of Aristotle and which he erroneously understood as philosophical definitions explaining the essence of the things. Mathematics is present here only insofar as two added to itself makes four, and the (Academic) decad does not figure in this context, for it was not attached to any concept. Three, four, and seven belong to the classical repertoire of number symbolism, so, if among the ancient Pythagoreans there were some people attached to these numbers, they would not appear much more superstitious than Aristotle himself. There is, however, one source which not only significantly enriches our knowledge of Pythagorean number symbolism, but in fact transforms it into an arithmological system. This is Alexander of Aphrodisias’ commentary on Aristotle’s *Met.* 985b26, where W. Ross, following P. Wilpert, identified an extensive quotation from Aristotle’s work *Against the Pythagoreans* (38.8–41.15 Hayduck = fr. 13 Ross). Alexander presents the whole series of numbers from one to ten accompanied by explanations very similar to or identical with those of the arithmological texts.⁷⁹ Commenting on the passage where justice and *καὶρός* appear, he started from the four and seven, but the original order is easy to restore.

One is *νοῦς* and *οὐσία*, “because one was unchanging (*μόνιμον*), alike everywhere, and a ruling principle, <...> but they also applied these names to substance, because it is primary.” Two is *δόξα*, “because it can move in two directions; they also called it movement and *epithesis*,” two is also the first even number and female. Three is the first odd number and male. Four is justice and the first square number; but others declared justice to be nine, the first square of an odd number. Five is marriage, because it is the first number generated from two, which is male, and three, which is female. Seven is *καὶρός*, since birth, the emergence of teeth, puberty, and so on are related to the number seven. Further, since the sun *αἴτιος εἶναι τῶν καὶρῶν*, it is situated in the same place as the number seven, for, of the ten bodies which revolved around Hestia, the sun occupied seventh place. Seven is also Athena, the motherless maiden, because it alone among the numbers of the decad neither generates any number nor is generated from any. The moon occupies the eighth place, the earth the ninth, and the counter-earth the tenth.

Thus, the numbers three and seven are attested in the doxography on the historical Pythagoreans; the numbers three, four, and seven, and two more unidentified numbers appear in Aristotle’s treatises; and the whole series from one to ten (except for six), with detailed explanations, is presented in an excerpt from

⁷⁸ See above, 339 n. 63.

⁷⁹ Asclepius’ commentary on *Met.* 985b26 contains more or less the same material at slightly less extent (36.1–34.4 Hayduck).

his lost work. Which line of the tradition is more reliable, and are they mutually compatible? There are, I believe, many serious reasons to doubt that Alexander's excerpt represents a) Aristotle's account b) of Pythagorean views. If it derives from Aristotle, it contains, besides the Pythagorean material, many Academic notions, unattested in the independent Pythagorean tradition. Identification of *nous* with the number one is attested for Plato and Xenocrates.⁸⁰ Οὐσία is a typically Platonic, and later Peripatetic term: Plato contrasted οὐσία, immutable essence, to becoming and motion (*Tim.* 29c); in the *Cratylus* (411c5), μόνιμον is used in this same sense; Eudemus (fr. 60) reports that Plato identified κίνησις with "great-and-small," that is, with the Indefinite Dyad; thus, the entire contrast between the "unchanging" monad and "moving" dyad is Platonic.⁸¹ Even if the "Pythagorean" definitions do not fully coincide with those of Plato (for him, opinion was three, not two), it is clear that we are dealing with an Academic type of arithmology. Sexual differentiation between even and odd numbers is attested in Xenocrates (above, 338); it seems unlikely that it goes back to an ancient tradition. At least, we have no evidence of this. The odd-even and male-female pairs, however, appear in the table of opposites, whose Academic provenance is not in doubt (see above, 340). Seven as Athena goes back to Speusippus, who claimed that seven was neither a quotient nor a divisor (fr. 28, l. 30). The very idea that numbers can be generated, so insistently repeated by Alexander, is typically Platonic.

Now, let us imagine for the sake of argument that some fourth-century Pythagoreans unknown to us did set forth such an oral doctrine before Plato and the Academy. Then it would have been available only to Aristotle (for nobody else testifies to it) and would have disappeared after him, leaving no traces in the classical and Hellenistic tradition except for the Early Academy. Again, this doctrine would have influenced the Academy in such a way that its distinctively Pythagorean features remained concealed – for Plato, Speusippus, and Xenocrates never say that justice is four and καίρως is seven – whereas all its "proto-Platonic" features became maturely Platonic. If such a case is hard to imagine, it is still possible to argue that Aristotle may have mistakenly ascribed the Platonic notions to the Pythagoreans (see above, 334). It is more problematic to maintain that the text, the kinship of which with the arithmological genre is more manifest than that of Speusippus' treatise, was written in the fourth century BC. Indeed, unlike Speusippus' work, Alexander's commentary displays all the typical features of an arithmological work. It is organized as a systematic commentary on the numbers from one to ten, not as scattered remarks on some significant numbers. It combines traditional number symbolism with ontology (substance, rest, movement, and so on) and mathematical arithmology: odd and even numbers, squares of them, ungenerated numbers, etc. It includes material on the number seven taken

80 See above, 338. Among the Pythagoreans νοῦς καὶ ψυχὴ appears only in Ecphantus of Syracuse, who makes it the force which constantly moves the whole cosmos (51 A 1).

81 Cf. a late ps.-Archytean passage: ἐπιστάτᾳ μὲν τὰ ἀκίνητα, δοξαστᾷ δὲ τὰ κινεώμενα (36.19).

ultimately from Solon (see above, 324). Seven here occupies the most prominent place, as in all arithmological texts, and three different interpretations are given to it: naturalistic, as for example in Hippon, arithmological, as in Speusippus, and cosmological, based on Philolaus' system. Such a combination of the different sections of reality is distinctive of arithmological texts. Consequently, this Aristotelian fragment becomes an effective alternative to the origin of arithmology as described above, for it contains basically everything that arithmology is about and thus makes unnecessary the entire historical evolution of the genre. Another alternative would be to consider to what extent exactly this fragment is indeed Aristotelian.⁸²

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Pythagorean Numerology and Diophantus' *Arithmetica*: A Note on Hippolytus' *Elenchos* I 2

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Keenness backed by teaching is a swift road to knowledge.
Diophantus, *Arithmetica* I, pref.

1

According to Hippolytus (*Elenchos* I 2, 18),¹ the Pythagoreans “borrowed their number theory and the system of measuring from the Egyptian priests.”² An outline of Neopythagorean numerology, which follows this statement, contains nothing “Egyptian,” of course.³ But to his otherwise typical summary Hippolytus unexpectedly adds the following extraordinary statement (repeated verbatim in a similar exposition of the Pythagorean doctrine in book IV 51, 8), which, as it turns out, may be of interest to the historians of mathematics:

- 1 The edition used is that of Miroslav Marcovich (1986). An English translation by J. H. MacMahon in the fifth volume of the *Ante-Nicene Christian Library* (Roberts / Donaldson 1867–1897) and that of F. Legge (1921) are mostly reliable but require corrections in some places. The work can be dated to the beginning of the third century (AD 222–235, according to Marcovich 1986, 17). As regards the character of the author, I prefer to suspend judgment. For details cf. Cerrato 2002 (with my review in *Bryn Mawr Classical Reviews*), Osborne 1987, Mansfeld 1992.
- 2 Τοὺς δὲ ἀριθμοὺς καὶ τὰ μέτρα παρ’ Αἰγυπτίων φασὶ τὸν Πυθαγόραν μαθεῖν. Similar phrases open other summaries of Pythagorean doctrine: in IV 51, 1 Hippolytus simply restates this, while in VI 21, 1–2 he adduces a “testimony” from Plato’s *Timaeus* (19e). Clearly the idea is of fundamental importance for him: the Pythagoreans used to lead a solitary life in underground chambers, “being struck by the plausible, fanciful, and not easily revealed wisdom” of the Egyptian priests (*Elenchos* I 2, 16–18). Pythagorean ties with Egypt are a commonplace, although the reason for keeping silence during the period of instruction given by Hippolytus is unusual and perhaps arose as a result of merging two or more separate reports into one succinct testimony (silence = a solitary life).
- 3 He starts with definitions of the first number (an originating principle, singular, indefinable, incomprehensible, containing in itself all numbers that, according to plurality, can go on ad infinitum) and the primary unit (a principle of numbers, a male entity, a parent of all the rest of the numbers). The dyad (a female even number), the triad (a male uneven number), and the tetrad (a female even number) follow them and produce a decade (“the source of everlasting nature”), etc. This variant of Pythagorean numerology roughly corresponds with the “typical” Pythagorean metaphysics known to have been developed by the members of the Old Academy (Speusippus, Xenocrates, etc.). For detailed analyses of the subject see, for instance, Burkert 1972, 53 ff. and Dillon 2003, 40 ff., 110 ff.

The four divisions of this decade, the perfect number, are called (καλεῖται) number, unit, *dynamis*, and *cubus* (ἀριθμός, μονάς, δύναμις, κύβος), the conjunctions and minglings of which make for the birth of increase and complete naturally the productive number (τὸν γόνιμον ἀριθμόν). For when the *dynamis* is multiplied by itself, a *dynamodynamis* is the result (ὅταν γὰρ δύναμις αὐτὴ ἐφ' ἑαυτὴν κυβισθῇ, γέγονε δυναμοδύναμις). But when the *dynamis* is multiplied into the *cubus*, the result is a *dynamocubus* (ὅταν δὲ δύναμις ἐπὶ κύβον, γέγονε δυναμόκύβος); and when the *cubus* is multiplied into the *cubus*, the product of two cubes (*cubocubus*) is the result (ὅταν δὲ κύβος ἐπὶ κύβον, γέγονε κυβόκύβος). So that all the numbers from which the production of existing (numbers) arises, are seven – namely, number, unit, *dynamis*, *cubus*, *dynamodynamis*, *dynamocubus*, *cubocubus* (ἀριθμόν, μονάδα, δύναμιν, κύβον, δυναμοδύναμιν, δυναμόκύβον, κυβόκύβον).

This is an excerpt from Diophantus. In his *Arithmetica* I (Praef., ed. Tannery I, 2, 3 ff.; I. Thomas' translation) this Greek mathematician likewise starts his exposition with definitions of *number* (ἀριθμός) and *unit* (μονάς), "all numbers are made up of some multitude of units" and "their formation has no limit" and proceeds by saying that the square of a determinate number (τετράγωνον) is formed when "any number is multiplied by itself; the number itself is called the side of the square (the square root);" cubes are formed when "squares are multiplied by their sides;" square-squares (δυναμοδύναμις) are formed when squares are multiplied by themselves; square-cubes (δυναμόκύβος) are formed when squares are multiplied by the cubes formed from the same side; cubo-cubes (κυβόκύβος) are formed when cubes are multiplied by themselves.⁴

A *Thesaurus Linguae Graecae* (TLG) search helps to identify the place of Hippolytus' source within the Greek literary tradition. Take, for instance, the κυβόκύβος. The TLG gives twelve instances in Diophantus himself (all from the *Arithmetica*), eight in the *Scholia in Diophantum* (all within one passage), one in the *Scholia in librum Iamblichi in Nicomachi arithmetica introductionem* (with a reference to Diophantus), and, finally, our passage in Hippolytus (three times).

A search for δυναμοδύναμις yields similar results (Diophantus, Hippolytus, *Scholia in Diophantum*, *Scholia in Iamblichum*) with two interesting exceptions. The term is twice used in the *Metrica* (I 17, lines 17, 25 and 26, ed. H. Schöne) of Heron of Alexandria and once in the Neoplatonic *Anonymous prolegomena to Platonic philosophy* (6, ed. L. G. Westerink), discussed below. So the terminology must have

4 He introduces the following notation: the square of the unknown quantity is called *dynamis* (signified by Δ with index Υ , that is $\Delta^\Upsilon = x^2$ in contemporary notation); the cube – *cubus* ($K^\Upsilon = x^3$); the square multiplied by itself – *dynamodynamis* ($\Delta^\Upsilon \Delta = x^4$); the square multiplied by the cube formed from the same root – *dynamocubus* ($\Delta K^\Upsilon = x^5$); the cube multiplied by itself – *cubocubus* ($K^\Upsilon K = x^6$). Fractions are defined similarly: *arithmoston* – $1/x$; *dynamoston* – $1/x^2$; *cuboston* – $1/x^3$, etc. He also introduces special marks for number, unit, and unknown value.

originated in the works of such mathematicians as Heron and Diophantus and, for some reason, aroused interest only in Platonic and Pythagorean circles. Indeed, if we were to look for an example of an "ideal" Pythagorean, Diophantus would certainly qualify: he wrote a book on such a popular Pythagorean subject as polygonal numbers, transformed traditional arithmetic, and created a new theory of number; in a word, he did things a Pythagorean is supposed to do. It is no secret that Pythagorean numerology is not very useful from a mathematical point of view. What if an unknown Pythagorean (Hippolytus' source) decided to translate the standard Pythagorean theory into the language of the higher mathematics of his times? It is as if asked to define number I were to indulge in axiomatic set theory.

The anonymous author of the *Prolegomena to Platonic philosophy* comments on the fact that Plato died at the age of 81: this number is associated with Apollo and Muses, he says, and bi-quadratic ($\delta\upsilon\nu\alpha\mu\omicron\delta\upsilon\nu\alpha\mu\iota\varsigma$), because the number three⁵ multiplied by itself gives nine, while nine multiplied by itself gives our 81, i. e. $3^2 \cdot 3^2 = 3^4 = 81$. We know nothing about Diophantus' life, but he may not have been a complete stranger to Pythagorean circles, as a mathematical riddle, allegedly an inscription on his tomb, which tells scientifically the span of his life, seems to attest (*Palatine Anthology* XIV 126).⁶

It is intriguing that Hippolytus is not alone in ascribing this sort of mathematics to the Egyptians. A Byzantine polymath Michael Psellus (Thomas II.514–515) also says that Diophantus "more accurately" developed a certain "Egyptian method." Compare a *Scholium to Plato's Charmides* 165e (Thomas I.17) where logistic is defined as "a science that treats of numbered objects, not of numbers" (1 as a unit, 3 as a triad, 10 as a dyad, etc.). It deals, according to the scholiast, with such problems as Archimedes' *Cattle Problem* and

its branches include the so-called Greek and Egyptian methods of multiplication and division, as well as the addition and splitting up of fractions,

5 "The first number which contains in itself the beginning, the end, and the middle;" compare with Anatolius *ap. the Theologoumena arithmeticae* 17.

6 "Here lies Diophantus. The wonder behold – Through art algebraic, the stone tells how old: 'God gave him his boyhood one-sixth of his life, / One-twelfth more as youth while whiskers grew rife; / And then yet one-seventh ere marriage begun; / In five years there came a bouncing new son. / Alas, the dear child of master and sage / After attaining half the measure of his father's life / Chill fate took him. After consoling his fate by the science of numbers / For four years, he ended his life'" (trans. W. R. Paton). Let x be the numbers of years Diophantus lived, then, given that the number of years his son lived is $x/2$, the problem is solved thus: $x = x/6 + x/12 + x/7 + 5 + x/2 + 4$ (quoted according to Eric Weisstein, "Diophantus' Riddle:" mathworld.wolfram.com/DiophantussRiddle.html). The solution is 84 years, admittedly, not as perfect as in the case of Plato, but still interesting: consider, for instance: $3 + 81 = 3 + 3^4 = 3 \cdot (1+3^3)$. Cf. "Pythagorean" methods of finding "side- and diameter-numbers" (Thomas I.90–95, 132–139, examples from Aristotle, Lucian, Nicomachus, Theon of Smyrna, and Proclus), Archimedes' famous *Cattle Problem* (Thomas II.202–205), Heron's problems (II.504–509), etc. Compare also the *Theologoumena arithmeticae* 52–53, where Anatolius applies 6^3 as part of the calculation of Pythagoras' lifespan: the answer is 82. We will return to this later.

whereby it explores the secrets lurking in the subject-matter of the problems by means of the theory of triangular and polygonal numbers. Its aim is to provide a common ground in the relations of life and to be useful in making contracts, but it appears to regard sensible objects as though they were absolute. (trans. Thomas).

Speaking about the Egyptian influence, our sources do not allude to anything especially mystical, nor ascribe to Pythagoras any sort of secret Egyptian lore: the ancient testimony is in agreement with the historical truth, as the Egyptian papyri amply testify (cf. Fowler / Turner 1983, Knorr 1982, 140 ff., Chrisomalis 2003).

2

History was not kind to Diophantus: valued nowadays as one of the greatest mathematicians of all times, he was almost completely forgotten by his contemporaries.⁷ We know nothing about his life, and his origin is also uncertain. The fundamental *Arithmetica* (now supplemented by the Arabic books, edited in 1982–1984) definitely belong to Diophantus; a partially preserved treatise *On Polygonal Numbers* is traditionally ascribed to him. A collection of propositions in the theory of numbers, called the *Porisms*, is several times mentioned by the author in Book III of his *Arithmetica*. Jean Christianidis (1980) suggested that certain (lost to us) “elements of arithmetic” (Αριθμητικὴ στοιχείωσις), ascribed to Diophantus by an anonymous Byzantine commentator to Iamblichus’ *Introduction to Nicomachus’ Arithmetic* (132, 10–13 Pistelli),⁸ could have served as an elementary introduction (similar or identical with this *Porisms*). This is interesting because, transmitted independently, this introductory work would be able live its own life and, unlike the exceptionally difficult major treatise of Diophantus, could have influenced popular arithmetic; such popular arithmetic took forms such as elementary textbooks (Robbins 1929; Fowler 1983), mathematical epigrams, like those collected

7 The *status questionis* is well summarized by N. Schappacher (2005, 9 ff.): “The *Arithmetica* are almost as elusive as their author. The way in which mathematicians through the centuries have read and used the *Arithmetica* is always a reliable expression of their proper ideas; but never can we be sure of what these readings tell us about the text itself. The *Arithmetica* are probably the most striking example of a mathematical text which, on the one hand, has inspired, and continues to inspire, generations of mathematicians at various different moments of the history of algebra and number theory; but which, on the other hand, has never, for all that we know, been developed further as such.” He then describes “four major renaissances of Diophantus, or, more precisely, two times two” which occurred between the ninth and thirteenth centuries in the world of Islam and Byzantium and between the sixteen and seventeenth centuries in Europe and the Western world. The four Arabic books of Diophantus were discovered in the 1970s and the Greek mathematician still inspires contemporary mathematical thought (28 ff.).

8 The text reads: “We shall learn the properties of the harmonic mean more fully in the final theorem of the first book of Diophantus’ presentation of the elements of arithmetic, and the diligent should read them there” (132 Pistelli, Waterhouse’s translation).

by Metrodorus (who, by the way, calls Diophantus' work στοιχειά⁹), and the Pythagorean numerological works similar to this one excerpted by Hippolytus. This attribution was somewhat undermined by W. Waterhouse (1993), who, following Heath, argued that the *Elements of Arithmetic* is just another title for the *Arithmetica*, having demonstrated that a "diligent reader" could indeed learn about the geometric mean from the last problem of the first book of the *Arithmetica* (I 39). Despite this, in the same year Wilbur Knorr (1993) not only found additional indications in favour of this attribution,¹⁰ but also argued that another introductory work, the *Definitions*, commonly attributed to Heron of Alexandria, could in fact belong to Diophantus.¹¹

Hippolytus' text can clearly serve as a good and virtually neglected *terminus ante quem* for the dating of Diophantus. Largely forgotten in antiquity, Diophantus is for the first time mentioned by name in Theon of Alexandria's *Commentary on Ptolemy's Syntaxis* I, 10 (Thomas II.514).¹² On the other hand, in the work *On*

9 Tannery 1893–1895, II, 62–63, 69. These epigrams correspond to the second problem of *Arithmetica* I.

10 Most importantly, he noticed that ἐν τοῖς πρὸ τῆς ἀριθμητικῆς στοιχειώσεως in the Heronian *Definitions* (128; Heiberg 84.17–19) may actually refer to some *Preliminaries* to the *Elements of Arithmetic*, and not to the work as such. This proves that the *Elements of Arithmetic* could indeed be an alternative title for the *Arithmetica* and, at the same time, leaves open the question of a hypothetical introductory work. His (and Tannery's) guess that, "the Iamblichus scholiast appears to have conflated" two works, "*Preliminaries* being a commentary (presumably in the margins of Diophantus' *Arithmetica*)" (Knorr 1993, 182) is hopelessly conjectural, however.

11 The crucial passage is: Καὶ τὰ μὲν πρὸτῃς γεωμετρικῆς στοιχειώσεως τεχνολογούμεν αὐτογράφῳ σοι καὶ ὑποτυπούμενος, ὡς ἔχει μάλιστα συντόμως, Διονύσιε λαμπρότατε, τὴν τε ἀρχὴν καὶ τὴν ὅλην σύνταξιν ποιήσομαι κατὰ τὴν τοῦ Εὐκλείδου τοῦ στοιχειωτοῦ τῆς ἐν γεωμετρίας θεωρίας διδασκαλίαν – "Also the systematized *Preliminaries* of the *Elements of Geometry*, by writing them below for you and sketching them out, in the most succinct manner, most illustrious Dionysius, I shall make both the foundation and the whole arrangement in accordance with the teaching in the theory of geometry of Euclid, the Elementator" (the opening phrase of the *Definitions*; Knorr's translation, slightly adapted). Knorr observes that this preface and the preface to the *Arithmetica* are addressed to individuals with the same name, Dionysius, and that, in general, they are very similar in their tone, syntax, and style. On the other hand, the *Definitions* are isolated in the Heronian corpus, their attribution to Heron has long been questioned, and, most importantly, the prefaces to other works of Heron are conspicuously different in style and form. This scenario entails, according to Knorr (1993, 186–187), that the *Preliminaries*, called to provide assistance for relative beginners in mathematics, were published by Diophantus after the *Elements of Arithmetic* (= our *Arithmetica*) and "the conspicuous parallelism of the titles – the *Elements of Arithmetic* and the *Elements of Geometry*, by which he refers, respectively, to his own *Arithmetica* and the *Elements* of Euclid, indicates his arrangement of the two great treatises as counterparts within the mathematical curriculum" (Knorr 1993, 188). I find this scenario plausible, with the reservation that the *Preliminaries* could actually have been prepared and published any time before, after, or during the composition of the major treatise.

12 In his fairly elementary work Theon quotes the following statement of Diophantus: "The unit (*monas*) being multiplied without dimensions and everywhere the same, a term (*eidos*) that is multiplied by it will remain the same term." Theon saw the eclipse of AD 364. His daughter Hypatia, also a mathematician, was murdered by the Christians in 415.

Polygonal Numbers, Diophantus quotes Hypsicles (ed. Tannery I 470.27; Thomas II.514), a mathematician and astronomer dated to the mid-second century BC and famous for his division of the circle of the zodiac into 360 parts.¹³ Finally, in the *Letter* mentioned above Psellus states that, “the most learned Anatolius collected the most essential parts of the theory as stated by him [Diophantus] in a different way and in the most concise form, and dedicated his work to Diophantus” (Tannery II.38.22–39.1; Thomas II.514).¹⁴ On the basis of these data Tannery concluded that Diophantus must have been a contemporary of Anatolius, whom he identified with a professor of Aristotelian philosophy in Alexandria who was made bishop of Laodicea around AD 270–280.¹⁵ Scholars have doubted this inference and have felt themselves “at liberty to place Diophantus wherever he best fits their theories of historical development” (Swift 1956, 163): some tend to date him closer to the time of Theon of Alexandria, while others relate him to Heron of Alexandria.¹⁶

13 Hypsicles, *On risings*; Thomas II.394–5. The division of the ecliptic into 360 degrees was, probably, developed by the Egyptians on the basis of the Mesopotamian methods already in the sixth–fifth centuries BC, when Egypt was under the administration of the Persians (Knorr 1982, 157, with a reference to Parker 1972). Hypsicles, however, applied the division to any circle in general. He made a general definition of polygonal numbers, which is quoted by Diophantus. He is also the author of the so-called Book XIV of Euclid’s *Elements*, where he refers to Apollonius of Perga as a contemporary.

14 Knorr’s (1993, 184–185) suggestion to read *heteroi* instead of *heteros* as in Tannery (which would imply Psellus’ reference to “a different Diophantus”) further complicates the situation while offering no useful solution. Admittedly, dynasties of intellectuals were common in late antiquity. Take, for instance, Theon and Hypatia (above), or Iamblichus the Younger (the second part of the fourth century), a relative of Sopater, who was a student of the Neoplatonic philosopher Iamblichus (Cameron 1967). Diophantus is not a very common name, but nor is it unique. For instance, a series of superb inscriptions from Lydae (in Lycia, on the southern coast of Turkey) honour a family using this name, founded by a certain Caius Julius Heliodorus, probably a freedman of the Dictator Caesar, which included numerous local officials named Diophantus, and a senator Diophantus, a *rhetor* Heliodorus, etc. An inscription found in the same group honours a physician of Lydae, Ameinias Aristobulus, a man of learning and of distinguished skills, who may belong to the same family (Hicks 1889, 58–75); he is not recorded elsewhere in the literary sources, but Galen mentions a certain Diophantus, also a physician from Lycia (in *De compositione medicamentorum secundum locos* XII 845.8 Kühn). For more details see *Tituli Asiae Minoris* vol. 2, fasc. 1 (1920), nos. 129–157.

15 This Anatolius, mentioned by Eusebius (*Hist. Eccles.* II 726, 6–9), composed ten books of *Arithmetical Introductions*. On the other hand, Eunapius (*Vita Soph.* 363) informs us that a certain Anatolius, a contemporary of Plotinus and Porphyry, was a teacher of Iamblichus. If we, with D. O’Meara (1990, 23), do not wish to multiply Anatolii beyond necessity, and accept an earlier date for Iamblichus’ birth (*before* AD 245, according to J. Dillon’s suggestion), we can entertain the possibility that Iamblichus studied under Anatolius before the latter became bishop. On the same principle, we may presume that the fragments of a numerological treatise found, along with the excerpts from Nicomachus, in the anonymous *Theologoumena arithmeticae* also belong to him.

16 Knorr (1993), discussed above. Thanks to O. Neugebauer we know that the eclipse of the moon described by Heron (*Dioptra* 35) occurred in AD 62.

I assume that this is the ground for the new dating of Diophantus somewhat earlier than it was previously thought. How much earlier? Our passage contains no indications. But let us look attentively at what follows it:¹⁷

[Pythagoras] likewise said that the soul is immortal, and that it subsists in successive bodies (μετενσωμάτωσιν).¹⁸ Wherefore he asserted that before the Trojan era he was Aethalides, and during the Trojan epoch Euphorbus, and subsequent to this Hermotimus of Samos, and after him Pyrrhus of Delos; fifth, Pythagoras.

This was probably invented by a student of Plato and Aristotle, namely Heraclides of Pontus (ca. 380–310 BC).¹⁹ In a passage from Anatolius in the *Theologoumena arithmeticae* 52–53 another student of Aristotle, Aristoxenus (ca. 370–300 BC), and the whole group of Hellenistic historians are credited with a story about Pythagoras' journey from Egypt to Persia as a prisoner of Cambyses (II). The chronology is then used to count the years of Pythagoras' life: the numerologist says that Pythagoras' reincarnations occurred every $6^3 = 216$ years; 514 years had passed from the Trojan epoch to the times of Polycrates of Samos; Cambyses was a contemporary of Polycrates; therefore $514 - 216 - 216 = 82$. Another numerological riddle, and the cubes again!

But Diodorus of Eretria and Aristoxenus the musician, – continues Hippolytus – assert that Pythagoras went to Zaratas the Chaldaean (Ζαράταν τὸν Χαλδαῖον),²⁰ and that he explained to him that there are two original causes of things, father and mother, and that father is light, but mother darkness...

Zaratas is then credited not only with distinctly Zoroastrian ideas, but also with the concept of the cosmos as a musical attunement (μουσικὴν ἁρμονίαν), and even with the Pythagorean ban on eating beans, subsequently related to the idea of reincarnation.²¹

17 *Elenchos* I 2, 12 f. Translations in Kingsley (1990) and Osborne (1987) have been consulted.

18 Cf. VI 26. *Metempsychosis* is a rare word. It occurs once in Clement of Alexandria (τὸ περὶ τὴν μετενσωμάτωσιν τῆς ψυχῆς δόγμα; *Stromateis* 6.35.1.4, where the Indian philosophers are accused of borrowing their doctrines from the Egyptians), once in the Platonic Celsus (*ap. Origenes, Contra Celsum* 7.32.12), six times in Hippolytus and from time to time in later literature, most notably, in Origenes (some 20 times), Theodoretus (6 times), Epiphanius (8 times) and other Christian heresiologists and, quite independently of them in Plotinus (twice), Proclus (once), Hermias (once) and Olympiodorus (3 times). One may also note Nemesius of Emesa (5 times). A more standard term would be *metempsychosis*, known at least from the first century BC (Diodorus Siculus 10.5.2.8, a pseudo-Pythagorean source, the so-called *Anonymous Diodori*); also note a pseudo-Pythagorean *Anonymous Photii* and *Theologoumena Arithm.* 52.10 (Aristoxenus, fr. 12.3 Wehrli).

19 Pythagoras had allegedly recognized the shield of Euphorbus, a Trojan hero, killed by Menelaus (cf. Ovid, *Metamorphoses* 15, 160–164, D. L. 8.4 = fr. 89 Wehrli).

20 Cf. VI 23, 2: Ζαράτας ὁ Πυθαγόρου διδάσκαλος.

21 This is truly exceptional. A later tradition about Pythagoras adds to the list of countries he visited the land of the Brahmins, but no one in antiquity ever connected the Pythagorean

This passage, maddening as it stands, has been variously interpreted by scholars. Some, following Eduard Zeller, emphatically denied Aristoxenus' authorship,²² others, and on good grounds, took a more balanced position.²³ It is true that Aristoxenus is known to have denied that Pythagoras opposed the eating of beans.²⁴ But this is not decisive in this context. Given that Aristoxenus wrote a great number of works, including other treatises on Pythagoreanism, of which we possess only a handful of fragments and secondary reports, we cannot rule out that he related this somewhere else. Besides, Aristoxenus is famous for his stories about personal contacts between philosophers.²⁵

Another solution suggests itself: the list of previous lives of Pythagoras (as seen above) and the peculiar experiment with beans in Hippolytus could be traced back to Heraclides of Pontus.²⁶ Further, it is known that Heraclides published a (lost) dialogue, entitled "Zoroaster" (Plutarch, *Adv. Col.* 1114f–1115a). Could he also have fathered other parts of this report, or, at least have contributed to its development?

We further note that Hippolytus' strange idea that the Pythagoreans led a solitary life in underground chambers, "being struck by the plausible, fanciful, and not easily revealed wisdom" of the Egyptians (*Elenchos* I 2, 16–18), as mentioned

psychology with India, although at least from the Hellenistic period Greek and Latin authors possessed reasonably reliable information about this country. If we are not surprised to find Greek golden pendants in a Hunnic tumulus in Mongolia (Polos'mak *et al.* 2011, 111 ff.), why we are so reluctant to accept the possibility of intellectual contacts between the Greeks and other nations? The Greeks and Indians could have interacted in Persia, just as the Persians did with the Greeks in Egypt. See also Bernabé / Mendoza (2013, 48–49).

22 Most recently: Zhmud 2012, 83 ff.

23 See Kingsley 1990, 246 ff.

24 Aulus Gellius, *Noctes Atticae* 1–4.11 = 25 Wehrli; D. L. 8.20 = fr. 29a Wehrli. And, in general, Aristoxenus differs a great deal from other authors known to have written on Pythagoras. For instance, he is recorded to have established an alternative tradition about Pythagoras' birthplace (Clement, *Stromateis* I 62, 2–3; D. L. 8.1 = fr. 11a Wehrli: Pythagoras was "a Tyrrhenian from one of the islands which the Athenians held after expelling the Tyrrhenians"). It worth noticing that Hippolytus knows about this alternative tradition, as the opening sentence of his report clearly indicates: "Some say that Pythagoras was a native of Samos" (Hippolytus, *Elenchos* I 2, 1). Apparently Aristoxenus' opinion was also recorded immediately before this phrase in his source.

25 Kingsley 1990, 252 f. In a recent article Lacrosse (2007) notes that the fictitious discussion between Socrates and the Indian (Eusebius, *Praep. Evang.* I 1, 3 = fr. 53 Wehrli) "echoes the genuine and typically Indian axiom that knowledge of the human self is knowledge of God and vice versa, which is one of the major commonplaces in traditional Brahmanic thought" and "Aristoxenus' fragment is one of the first and only texts, historically, in which a typical Greek philosophical argument is challenged by an authentic Indian proposition translated into an argument based on Greek conceptual categories." Compare the story about Aristotle and the Jewish Sage told by Clearchus of Soli (Lewy 1938), and a passage in the *Theologoumena arithmeticae* 52–53 (discussed above). Even if numerology in the latter is due to Anatolius, the historical details could go back to Aristoxenus.

26 Diogenes Laertius 8.4–5 and Lydus, *De mens.* 99.17, respectively; fr. 41 Wehrli; Marcovich 1968, 32.

above, may be inspired by still another student of Aristotle, Dicaearchus (Porphyry, *VP* 18 = fr. 33 Wehrli).

Finally, a story about the ways new members were accepted into the Pythagorean community, recorded almost immediately after our fragment (*Elenchos* I 2, 16–18), is clearly based on a report found for the first time in a Hellenistic historian Timaeus of Tauromenium (c. 350–260 BC). Pythagoras, allegedly, asked prospective disciples to sell their property and deposit the money with him for the period of instruction. In the event of success, the accepted candidates would hold their property in common,²⁷ while those rejected would receive their money back. This tradition is relatively early and is usually considered more-or-less credible, as is Hippolytus' repeated statement that the Pythagorean school²⁸ consisted of two groups of disciples: the insiders ("Esoteric Pythagoreans"), and the outsiders (the Exoterics, also called Pythagoristae).²⁹ This is the sort of statement one can readily believe, unlike the later tradition about the *mathematikoi* (philosophers and scientists) and *akousmatikoi* (those who receive ethical maxims in a "symbolic" manner), found for the first time in Clement of Alexandria (*Strom.* V 59, 1) and fully developed by Iamblichus.³⁰ It appears therefore that all the information given by Hippolytus is in its substance traceable back to the Lyceum.

The earliest author known to use this material is Alexander Polyhistor (early first century BC).³¹ The source excerpted is also similar to the one appropriated

27 "What belongs to friends is common property," κοινὰ τὰ τῶν φίλων; Timaeus, fr. 13a Jacoby; Schol. in Plato's *Phaedrus* 279c.

28 Called αἰρεσις (I.4). Compare *Ref.* I 22, 23 and 24.1 where the same term characterizes the Epicureans, the Academics and even the Brahmins. It is safe, therefore, to assume with Mansfeld (1992, 11) that Hippolytus mechanically copied it from his source, rather than introduced it himself. Clement also thought it was typical of any school: the Academics, the Epicureans, the Stoics, and even "the followers of Aristotle say that some of the works of their teacher are esoteric, while the rest is popular and exoteric" (*Strom.* V 58, 1–2; cf. 59, 2).

29 Τοὺς μὲν ἐσωτερικοὺς, τοὺς δὲ ἐξωτερικοὺς (*Ref.* I 2, 4); οἱ μὲν οὖν ἐσωτερικοὶ ἐκαλοῦντο Πυθαγόρειοι, οἱ δὲ ἔτεροι Πυθαγορίσται (*Ref.* I 2, 17).

30 This well-known subject cannot be treated here. Lengthy discussions are found in Burkert 1972, 192–208 and, recently, Zhmud 2012, 169–206; specifically for Clement's reinterpretation of the concept as a good example of a profound change of attitude to Pythagoras and his school, which took place in the process of transition from the Late Hellenistic to Early Roman period, cf. Afonasin 2012, 27–32.

31 "Pythagoras was enthusiastic about Zoroaster, the Persian Magus, and the followers of Prodicus' heretical sect claim to have obtained secret books of this writer. Alexander, in his work *On Pythagorean Symbols*, records that Pythagoras was a pupil of the Assyrian Zaratas (whom some identify with Ezekiel, wrongly, as I shall show presently), and claims in addition that Pythagoras learned from Gauls and Brahmins (Clement, *Strom.* I 69, 6–70, 1; J. Ferguson's translation)." This, by the way, indicates that the ancients typically distinguished this Zaratas from the prophet Zoroaster, placed in time immemorial (cf. Aristotle, fr. 6 and 34), and routinely cited in this capacity, cf. Clement, *Strom.* I 133, 1 (Zoroaster in a list of real and legendary persons), III 48, 3 (on the Magi in general), V 103, 2 (where Er from Plato's *Republic* is identified with Zoroaster); Hippolytus, *Ref.* V 14, 8 (quoting from a phantasmagoric Gnostic book). Plutarch, *On the Generation of the soul in the Timaeus* first mentions our Zaratas as the teacher of Pythagoras (1012e) and then (1026b) refers to Zoroaster, the author of a

by Antonius Diogenes (ca. AD 100–130).³² In his *On the Generation of the soul in the Timaeus* (1012e) Plutarch openly admits that he uses an indirect source and then says that Xenocrates (fr. 68 Heinze)

insert[ed] a limit in infinitude, which they call indefinite dyad (this Zaratas, too, the teacher of Pythagoras, called mother of number; and the one he called father, which is also why he held those numbers to be better that resemble the monad)... (trans. H. Cherniss).

Having combined this testimony with Hippolytus, Harold Cherniss (1976, 165 note C, with reference to Roeper 1852, 532–535) concludes that behind an otherwise unknown Diodorus (of Eretria) may “lurk” the name of the Neopythagorean philosopher Eudorus (late first century BC), cited several times and frequently used by Plutarch. This well may be the case and Eudorus could indeed have transmitted this information to later writers.

It is safe to assume therefore that our story about Zaratas (if not the entire report) had already been a part of Hellenistic doxographic tradition, reflecting a general tendency to find suitable foreign teachers for all Greek authorities. In the same vein Clement informs us that the teacher of Pythagoras was a certain Sonchis, the highest prophet of the Egyptians, while Plato was associated with a certain Sechnuphis of Heliopolis, Eudoxus the Cnidian studied under Chonuphis, and Democritus spent eight years with certain “Arpedonaptae” (land-surveyors) (*Strom.* I 69, 1 f.). The source of this cento in Clement is unknown, but can probably also be traced to Hellenistic doxography.³³ And, in general, the material analysed seems to indicate that Hippolytus utilized sources that can be dated to a relatively early period. He gives a list of Pythagorean symbols elsewhere (*Elenchos* VI 51, 27, etc), but, as we have seen, knows nothing about the akousmatics and mathematics. This may indirectly indicate that his source(s) were not influ-

mythos about Oromasdes and Areimanius, who (according to his *On Isis and Osiris* 369d–e) lived 5000 years before the Trojan War. Cf. also Diogenes Laertius I 2 (from Hermodorus), Pliny, *Nat. Hist.* XXX 4 (from Hermippus), and, finally, Pletho in Anastos (1948, 280 f.). Be he Zaratas, Zarathustra, or Zoroaster, our authors clearly distinguish between the ancient prophet and the alleged teacher of the historical Pythagoras: a Persian follower of Zoroastrianism could easily have been named after the ancient prophet. It is true, however, that the later Persian and Arabic authors used Aristoxenus’ dating of Zoroaster to the sixth century, as Kingsley (1990, 260) has perfectly demonstrated. Pythagoras, according to the Apollodorian system, reached his acme at the time of Polycrates’ tyranny in Samos (which means that he was forty ca. 532–529 BC). He was born in 570 therefore, and this date was assumed by the medieval Arabic authors when they calculated that Zoroaster “had appeared” 258 years before the Seleucid era. Cf. a similar numerological exercise above (Anatolius *ap.* the *Theologoumena arithmeticae* 52–53).

32 For a comparative study of the parallel versions of this report in Porphyry, *VP* 44, Lydus, *De mens.* IV 42, and Hippolytus, *Ref.* I 2, 14–15, cf. Marcovich 1964, 29–36. Antonius Diogenes authored a novel, entitled the *Wonders beyond Thule*, now available only as a summary in Photius, in which he claims that he has ancient sources for most of his material, but admits that the work as such is his own literary creation (Morgan 1985, 482). Cf. also Fauth 1978.

33 Diogenes Laertius (8.90) also calls Chonuphis the teacher of Eudoxus.

enced by Neopythagorean biography, which is clearly reflected in such authors as Clement, Porphyry, or Iamblichus. And all the texts exude references to Egypt: Pythagoras studied in Egypt, he borrowed his mathematics and number theory from the Egyptians, and the archetype for the organization of his school is provided by the Egyptian temples.

3

This has clear implications for the dating of Diophantus. If Anatolius, referred to by Psellus, is indeed the future bishop of Laodicea (after AD 270) and Dionysius to be identified with the leader of the Alexandrian "Catechetical School" (ca. AD 240), then, given that the *Elenchos* was composed before 235, Diophantus must, at least, be an older contemporary of Dionysius, which still places him a generation or two earlier than is traditionally supposed. But, given the nature of Hippolytus' work, it is hard to believe that the idea to interpolate an otherwise traditional Pythagorean text with this piece of "advanced mathematics" occurred to our doxographer. The whole text, as we have seen, unmistakably belongs to early Neopythagorean tradition, which allows us to entertain the idea that Diophantus the *philosophus Pythagoricus*, was known and used in the Neopythagorean and Platonic sources from the second, and, possibly, the first century AD.³⁴ Moreover, if he, as it seems, authored an introductory work on arithmetic, he may be set in a series with such persons as Eudorus, Cleomedes, Moderatus, Nicomachus, and Theon of Smyrna as a fully fledged contributor to the development of the Neopythagorean movement, perhaps to be placed somewhere between Eudorus and Nicomachus.

An interesting supplementary testimony, which seems to confirm this hypothesis, is furnished by Papyrus Michigan 620, dated to the third century AD. The papyrus contains a series of arithmetical problems "written," according to F. Robbins (1929), "prior to the time of Diophantus, in which a quasi-algebraic method of solution is employed and in which appear some of the symbols used in the manuscripts of Diophantus, notably the sign S, which denotes the unknown term." Robbins concludes that, "neither definitely utilitarian, nor so scientifically generalized as the *Arithmetica* of Diophantus... it is most probably a schoolbook of some sort, and perhaps from it or others like it Diophantus may have derived ideas which served as a basis for his mathematical methods." If we now reverse the perspective, could we speculate that this and similar textbooks were in fact influenced by earlier arithmetical works, of which Diophantus' *Arithmetica* was the most advanced example?

³⁴ Knorr also speculates that Diophantus "lived earlier than the third century, possibly even earlier than Hero in the first century" (1993, 187). I was about to complete this essay when I came across the article by Knorr. Is it not significant that two scholars came to a similar conclusion when approaching the problem from completely different perspectives?

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The Pythagorean Metaphysics of Numbers in the Works of the Ikhwān al-Ṣafā' and al-Shahrastānī*

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The Pythagorean metaphysics of numbers can be understood as a complex system of mutually dependent ideas. Within this system, the doctrine of number (or numbers) as the metaphysical principle (*arche / archai*) is quite often considered to be the central element. Consequently, in such cases, the number one is understood as the *arche* of number and the very heart of metaphysics.¹ Although one finds the first traces of this theory in Aristotle's writings as well as in some fragments of Philolaus, most of the sources that present or develop this metaphysics were composed between the Hellenistic period and Late Antiquity, and it can therefore be difficult to ascertain the degree to which this theory represents an original Pythagorean concept, and to what extent it is a creation of later philosophers.² However, as Pythagoreanism became increasingly popular from one period to another, this theory continued to be developed, eventually reaching its mature form in the works of Nicomachus of Gerasa, a philosopher and mathematician active in the first-second century AD. His work in turn had a strong influence on those Arabic intellectuals who were interested in Pythagoreanism. In this paper, I will analyse two Arabic descriptions of a "metaphysics of numbers,"

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- 1 Arist. *Metaph.* 985b–986a; *SE* 792; *Placita philosophorum*, Diels 302a; D. L. 8.1, 25; Anon. in Phot. 439a19–24; Hippol. *Haer.* 1.2; 6.23; 51. For Pythagorean metaphysics and number theory (prior to as well as later than Plato) see Burkert 1972, 15–96; 401–482 and also McKirahan 2013 and Zhmud 2013. For Pythagorean and Platonist number symbolism and metaphysics of numbers since the 1st cent. BC, see Kalvesmaki 2013, 7–25 and also O'Meara 1989, *passim*.
- 2 L. Zhmud argues that while this purportedly Pythagorean "doctrine of numbers" is not attested in sources prior to Aristotle, there is nothing that would allow us to claim that it was shared by Pythagoras and his early disciples. According to Zhmud, this idea was invented in the circles around the Academy or the Lyceum, and was only later adopted by Pythagoreans and people interested in Pythagoreanism. See Zhmud 1989; 2012, 394–456. This issue of the origin of the "doctrine of numbers" is in fact part of a much larger problem of how one approaches the fragmentary and difficult evidence on early Pythagoreanism, and what one considers to belong to the original Pythagoreanism (and, finally, how one defines the very notion of Pythagoreanism). A review of these various approaches is provided by Cornelli (2013a; 2013b). In the context of the Pythagorean metaphysics of numbers, see in particular Cornelli 2013a, 137–188 (where he also discusses Zhmud's ideas).

both of which claim to be Pythagorean. The first one is found in the *Epistles* of the Ikhwān al-Ṣafā', while the second was included by al-Shahrastānī in his *Kitāb al-Milal wa-l-Niḥal* (*Book of Religions and Sects*). Thanks to focusing closely on these two different texts, this paper will be able to show some of the ways in which the Pythagorean ideas were transferred from the Greek to the Arabic world.

Ikhwān al-Ṣafā'

The Ikhwān al-Ṣafā' (*Brethren of Purity*) is the name of an esoteric Ismaili fraternity of anonymous philosophers who were active in Basra and Baghdad around the ninth or tenth centuries AD (the exact date of their activity is disputed).³ The collection of their 52 philosophical treatises – known as the *Rasā'il* (*Epistles*) – presents a sort of encyclopaedia of philosophical knowledge, for which there is no parallel in medieval Arabic literature. In a sense, the Ikhwān's attitude towards Pythagoras and Pythagorean philosophy also has no parallel. Not only do they refer to Pythagoras several times, but they also explicitly emphasize their strong attachment to this particular tradition of Greek philosophy.⁴ Surprisingly, the sources on which they base their knowledge of Pythagoreanism seem to have been fairly sparse. They certainly knew the *Golden Verses*, and the *Introduction to Arithmetic* by Nicomachus of Gerasa was also important for them.⁵ However, they probably did not know any of the other texts translated into Arabic that had been the main sources of information about Pythagoras in the Arabic world (these were the *Placita philosophorum*, Pseudo-Ammonius' *Opinions of Philosophers*, and the *Life of Pythagoras* by Porphyry, as well as gnomologies).

Nonetheless, despite their lack of identifiable sources, the Ikhwān declared a strong attachment to the Pythagorean tradition, especially in comparison to other Arabic philosophers.⁶ This tendency is clearly visible in the thirty-second epistle, "On the intellectual principles according to the Pythagoreans"⁷ (which directly precedes the epistle "On the intellectual principles according to the Ikhwān al-Ṣafā'"). This epistle begins by recalling what is presented as Pythagoras' doctrine concerning number:

The nature of all that exists is in accordance with the nature of number.
One who knows number, its laws, its nature, its types and kinds, its prop-

³ Baffioni 2011.

⁴ Marquet 2006. However, Marquet's idea of the Ikhwān al-Ṣafā' as "Islamic Pythagoreans" has been criticized by D. de Smet, who claimed that Pythagoreanism was not in fact so important for the Ikhwān, and especially that their actual knowledge of Pythagoreanism was poor (De Smet 2007).

⁵ Baffioni 1994a, 1994b, 1997a, 1997b.

⁶ Izdebska 2014.

⁷ For a translation of this epistle, with a commentary, see Diwald 1975, 31–100. See also the latest edition and translation into English of this epistle and the following one in: P. E. Walker, I. K. Poonawala, D. Simonowitz, G. de Callatay (eds.) 2015, 1–113.

erties, he is able to know the quality of types and kinds of all beings, and to know the reason of their quality according to how they actually exist.⁸

The very first sentence of this quotation reveals the way in which the Ikhwān understood the Pythagorean idea of number in metaphysics. By writing that the nature of beings is “in accordance with” (*bihasab*) the nature of numbers, they point out an analogy that exists between the two – yet they do not go so far as to claim that numbers constitute the principle of reality. It is the Creator who is the cause (*‘illa*) of all that exists, and he is therefore “the true One” (*wahīd bilhaqiqa*). They then write that, in his wisdom, he did not create all beings as single; they are single with regard to their matter, but multifarious in their form. Neither did he create all things in the same way, as only double, or only triple, or only quadruple, etc.; on the contrary, reality consists of things that are double, as well as those that are triple, quadruple, and so forth. The following paragraphs of the epistle present examples of this phenomenon, and the authors note that there are various religious or intellectual groups who focus only on a particular number: the Sa’biyya (the Shi’a of seven imams, that is the Ismaili) see seven everywhere, while the Christians are concerned only with three, and the natural scientists with four.⁹ As the Ikhwān emphasize, Pythagoreans are different: they went beyond this level and attributed to each number its true significance while, at the same time, observing that none of the numbers is found in every single thing that exists in the world. Following this assertion, they write:

They [the Pythagoreans] said that the one is the origin (*aṣl*) and the source (*manṣha*) of the number, and that it is from ‘one’ that the number is composed, both small and large, even or odd, integer or fraction.¹⁰

For the Ikhwān al-Ṣafā’, as for the Greek Pythagoreans, the number one has a special place among the numbers, and must not be counted as one of them,¹¹ in the same way as the Creator transcends his creatures:

Thus, the one is the cause (*‘illa*) of number, in the same way as the Creator is the cause of all beings.¹²

In the following sentences, they focus on furthering this analogy: just as the number one is indivisible and thus completely dissimilar to the other numbers, so too is the Creator different from his creatures; and in the same way that the number one is contained within all numbers, the Creator is present within all creatures, holding them together; and finally, the number one provides the numbers with

8 Bustānī 1957 vol. 3, 178. All translations are by the author unless otherwise stated.

9 Ibid., vol. 3, 179–180.

10 Ibid., vol. 3, 181. The Ikhwān give an explanation of how exactly whole numbers as well as fractions are generated from one in El-Bizri 2012, 68–69 (12–14).

11 El-Bizri 2012, 12–13 (translation at 68); see also the commentary of Diwald 1975, 42–43.

12 Bustānī 1957, vol. 3, 181.

their essence, just as the Creator gives his eternity to everything, imparting existence in the process of emanating subsequent hypostases of all that exists. They say:

In the same way in which the repetition of the one brings into being number and its increase, thus from the overflow and generosity of the Creator comes birth, completeness, and perfection of the creatures. In the same way as the Two is the first number brought into being through the repetition of the One, thus the Intellect is the first being that has emanated from the existence of God.¹³

Thus, according to the Ikhwān, the Soul emanates from the Intellect just as three comes from two. Other elements correspond to subsequent numbers: four is Matter; five is Nature; six, the Body; seven, the Spheres; eight, the Elements; and nine, minerals, plants, and animals. In this way the Ikhwān managed to link Islamic monotheism with their understanding of the Pythagorean doctrine of numbers, as well as with an emanationist view of the process of creation. The Ikhwān, however, differ substantially from Greek Pythagoreans in the way they understood the role of numbers: they did not consider them as metaphysical principles, but rather as arithmetic beings. This particular approach was not uncommon among those Greek authors who showed a genuine interest in Pythagoreanism (see, for instance, the *Theology of Arithmetic* of Nicomachus of Gerasa); nevertheless, the Ikhwān al-Ṣafā' introduced their own modifications, which moved the central focus of the theory from number to God Himself.

The epistle on the Pythagorean doctrine of the intellectual principles quoted above is followed directly by an epistle on the intellectual principles "according to the Ikhwān". At the very beginning of this second epistle, the Ikhwān write that the Pythagorean idea that "beings exist according to the nature of number" – which they have just discussed – is also "the doctrine of our brothers" (*madhhab ikhwāninā*).

Furthermore, in the very first epistle of the *Rasā'il*, "On Arithmetic," the authors explain the extraordinary role of arithmetic and evoke the Pythagoreans as their predecessors in acknowledging its fundamental place within philosophy.¹⁴ They emphasize that the philosophical education of a novice should necessarily begin with the study of the science of numbers,¹⁵ because of the analogy of God-One and creatures-numbers (which they also describe in detail in this treatise). To give just one quotation from this epistle:

When you reflect upon what we have said regarding the composition and generation of numbers from the one that is prior to the number two, you

¹³ Ibid., vol. 3, 181.

¹⁴ El-Bizri 2012, 9 [65].

¹⁵ Ibid., 9 [66]; see also 62–65 [96–97]; cf. Endress 2003, 132–133.

will find it the clearest proof of the uniqueness of the Creator, exalted be His praise, and of the process of His creation and invention of things.¹⁶

It is clear that, for the Ikhwān, the science of numbers is not a goal unto itself, but rather a path towards the study of theology. At the same time, the (Pythagorean) science of numbers remains central to their philosophy. The epistle “On Arithmetic” is the opening treatise of their encyclopaedia; furthermore, their symbolic approach to numbers is relevant to more fields than just metaphysics or theology. The rules that govern numbers, briefly described in “On Arithmetic,” are also the organizing principle of the geometry presented in the second epistle (in which the point corresponds to the number one); moreover, these rules also govern the exposition of astronomy and music, as well as the natural sciences. It is from the science of numbers that “one takes examples for everything else that can be known.”¹⁷ Thus, the Ikhwān’s vision of the doctrine of numbers might be rooted in two Pythagorean statements: the claim that the number one is the principle of numbers, and the assertion that arithmetic is central to the other sciences. In reality, these two statements are so general that they could come from a source unrelated to Pythagoreanism (although for the Ikhwān this attribution is evident and important). The doctrine of the Ikhwān can therefore be qualified as their own version of Neoplatonic monotheism, rather than any Greek – or even late antique – version of Pythagoreanism.

Al-Shahrastānī

Abū l-Faṭḥ Muḥammad al-Shahrastānī was a Persian theologian who lived during the eleventh and twelfth centuries AD. Significantly, he was not a philosopher and in his works he actually criticizes Avicenna as the key proponent of the Arabic *falsafa* (that is philosophy based on the Greek tradition).¹⁸ Nor was he primarily a historian, though his *opus magnum* is historical or, rather, heresiographic. *Kitāb al-Milal wa-l-Niḥal* (*Book of Religions and Sects*) presents information on a huge variety of philosophical currents and famous philosophers, as well as religions and religious sects from the time of Adam to al-Shahrastānī’s own day. He divided his work into two parts, and this bipartite structure is reflected in the title of the text as a whole. The first part is devoted to the religions (*milal*) of revelation, based on sacred books and divine law; it includes Muslims, Jews, Christians, Mandeans, and dualists. The second part concerns sects (*niḥal*), who are the followers of ideas that originate solely in the human intellect: Sabians, Greek and Arabic philosophers (the *falsafa*), pre-Islamic Arabs, and various Hindu thinkers.¹⁹

16 Ibid., 23 [73]; trans. El-Bizri.

17 Ibid., 62 [96]; trans. El-Bizri.

18 First of all in his *Muṣāraʾat al-falāsifa* (*Struggling with the Philosophers*) (al-Shahrastānī 2001), as well as in the section dedicated to Ibn Sina in his heresiographical *Kitāb al-Milal wa-l-Niḥal* (*Book of Religions and Philosophical Sects*).

19 Janssens 1993; see also the introduction to al-Shahrastānī 1986.

His point of view is that of a heresiographer who presents the groups and figures as removed, to a greater or lesser degree, from the ideal of Islamic orthodoxy. He declares that, while various historians divide humanity into different groups according to peoples or regions of the world, he himself has adopted the division of people "according to their ideas and beliefs:"²⁰

I decided to gather all this information into a brief compendium containing all the religious beliefs and creeds of different peoples, so as to provide a lesson to the one who can reflect and a means of reflection for the one who can draw a lesson.²¹

Thus, although the form of the text is historical, the aim of its description extends beyond the normal purpose of a historical work: rather, it attempts to demonstrate which of the religious paths is the true one.

The chapters devoted to Greek philosophers are in the section of the book concerning those people who did not have any holy writings or divine law; one would thus expect that al-Shahrastānī, a pious Muslim, would wish to present them in an entirely negative way. Certainly there is no doubt that he juxtaposes Greek philosophers with the Muslim prophets, whose human truth was born of divine revelation. The text, however, reveals a hierarchy among the groups that were seen as being removed from the divine truth; each of these groups can – to varying degrees – possess some elements of the truth. The order in which he presents these groups is both chronological and respectful of the degree to which the views of a particular group are close to the prophetic revelations. Thus the first chapter deals with the Sabians.²² The second chapter is devoted to those Greek philosophers whom he calls the "pillars of wisdom" or "the seven sages:" Thales, Anaxagoras, Anaximenes, Empedocles, Pythagoras, Socrates, and Plato. The third chapter presents further Greek philosophers – including Plutarch, Xenophanes, Zeno, Democritus, Heraclitus, Hippocrates, Euclid, and the Stoics – while the fourth focuses on Aristotle and some later philosophers, for instance Theophrastus, Alexander of Aphrodisias, or Porphyry. In the fifth chapter, al-Shahrastānī describes contemporary Muslim thinkers, in particular Ibn Sīna. The final chapter deals with the Arabs of the *Jāhiliyya* (pre-Islamic) period, and the Indians.²³

Chapters 2 to 5, from the Seven Sages to Ibn Sīna, can thus be considered to form a separate part devoted to philosophers. In this context, it is clear that the "pillars of wisdom" – the group in which al-Shahrastānī has included Pythag-

20 Al-Shahrastānī 1846, 2.

21 Ibid., 1; trans. in al-Shahrastānī 1984, 8.

22 People from the city of Ḥarrān who practised a sort of old Semitic but strongly Hellenized polytheism; in the 9th century to avoid persecution by the Muslims, they adopted the name of the Sabians, who occur in Qur'ān as one of *ahl al-kitāb*, who are worthy of respect as peoples who received revelation (de Blois 2012).

23 See the general introduction to the French translation: al-Shahrastānī 1986.

oras – were in his view much closer to the truth than Aristotle. In fact, the first philosophers were in his opinion very close to the divine prophecy, yet due the fact that they lacked a divinely revealed book and law, they had to be placed in the second part of this huge work. The introduction to the chapter devoted to the “Seven Sages” contains the following words:

The philosophers of Islam, who came as the latest, completely neglected to cite [the first philosophers], as well as their treatises, except for isolated and strange anecdotes which attracted their thoughts and to which they referred by falsifying them. As for us, we looked for these anecdotes carefully, and followed them with criticism and offered you a choice, so that you could read them and compare between the words of the ancients and of the moderns.²⁴

Already in this passage al-Shahrastānī demonstrates a surprising respect for the first Greek philosophers, presenting his own approach in opposition to his Arabic predecessors. It must be emphasized, however, that he does not display any special attitude towards Pythagoras, and the subchapter devoted to his doctrine is only a few pages long, just like the other sections devoted to other Greek philosophers.

We can identify at least three sources on which al-Shahrastānī’s Pythagoras chapter²⁵ seems to have been based:²⁶ first, *The Opinions of the Philosophers*, a doxography attributed to Ammonius but most probably composed by an Arabic author on the basis of material from the *Refutatio omnium haeresium* by Hippolytus;²⁷ second, an Arabic translation of the *Placita Philosophorum* by Pseudo-Plutarch;²⁸ third, *Ṣiṭwān al-ḥikma* (*The Chest of Wisdom*), an Arabic history of Greek and Arabic philosophy attributed to Abū Sulaymān al-Sijistānī (tenth century AD). Whereas the Arabic translation of the *Placita philosophorum*, faithful to the Greek original, provides relatively reliable information on Pythagoreanism (at least in its Hellenistic shape), the doxography of Pseudo-Ammonius reworks its sources in accordance with the creationist Neoplatonic view of its author;²⁹ *Ṣiṭwān al-ḥikma*, on the other hand, contains a mixture of various Greek and Arabic elements.³⁰ When al-Shahrastānī was using these sources, he had little interest in the coherence of the information he quoted, nor for the logic or clarity of the text he created from them. However, he did add several sentences or even paragraphs which were probably supposed to join these pieces together.

24 Al-Shahrastānī 1846, 253–254.

25 This chapter has been separately translated into Italian with an extensive commentary in Baffioni 1983; German translation with a commentary by Dénes Kövendi: Altheim 1962.

26 On al-Shahrastānī’s sources see the introduction to vol. 2 of al-Shahrastānī 1986, 30–36.

27 Rudolph 1989.

28 Daiber 1980.

29 Rudolph 2007.

30 Dunlop 1957; al-Qāḍī 1981.

Immediately after introducing the figure of Pythagoras, al-Shahrastāni presents a quotation from Pseudo-Ammonius' doxography,³¹ which introduces the Pythagorean doctrine:

The highest creator is one, he is not like the ones and does not belong to the numbers. He is not within the reach of the intellect or of the soul, because the intellectual thought does not attain him, neither does the language of the soul describe him, as he is above the spiritual attributes.³²

Thus, the Creator can only be known through his works, which are different for every level of reality. This negative theology determines the understanding of the relationship between God and the number one. Contrary to the theory of the Ikhwān, God is presented here as so transcendent that despite being one / single he cannot be compared to the number one: his oneness is incomparable with the arithmetical one.³³ Al-Shahrastāni's vision of Pythagorean doctrine is certainly informed by Islamic theology. God is called the Creator and at the same time presented as completely transcendent, like the Neoplatonic One but not even comparable to the number one. It is worth emphasizing that the passage quoted above appears at the very beginning of the description of Pythagoras' philosophical doctrine. As a consequence, it demonstrates something that will be seen also in subsequent sections: for al-Shahrastāni, creationistic monotheism lies at the very core of Pythagoras' teaching.³⁴

The next paragraph begins with a theory, borrowed from a different and unidentified source, which proposes three distinct divisions of oneness (*waḥda*).³⁵ The first distinguishes the one that "is not attainable by anything else and... is the oneness of the Creator" from the one that is attainable and is the oneness of the creatures.³⁶ Al-Shahrastāni follows this with a second division of oneness: "the oneness before eternity (*dahr*),³⁷ the oneness in eternity, the oneness after eternity and before time, the oneness in time."³⁸ The first oneness is the Highest Creator, the second is the Intellect, then the Soul, and finally everything that exists in time, which is to say the elements and composite beings. Whatever his source, al-Shahrastāni seems to be returning to the idea of the transcendent one as God-Creator, a central point of the chapter. This idea is also apparent in the third and final division of oneness, which distinguishes between proper (*biḥāt*) and accidental (*bil'ard*) oneness:

31 Rudolph 1989, 51.

32 Al-Shahrastāni 1846, 265.

33 Cf. Baffioni 1983, 106–107.

34 This point of view is certainly supported by or even rooted in one of al-Shahrastāni's sources, that is Pseudo-Ammonius' doxography (Rudolph 1989, 50–55).

35 C. Baffioni has pointed out that the concept of such a division of oneness cannot be found in the Greek tradition (Baffioni 1983, 107).

36 Al-Shahrastāni 1846, 266.

37 For the translation of *dahr* as "eternity" see Altheim 1962, 33; 48–51; Baffioni 1983, 107–108.

38 Al-Shahrastāni 1846, 266.

The proper oneness belongs to the Creator of all being alone, from whom derive all onenesses (*waḥdaniyyāt*) in number and in what is countable.³⁹

The accidental oneness, on the other hand, can be divided into that which exists according to the principle (*mubdan*) of number but is not part of number itself – that is, the Active Intellect – and that which belongs to the principle of number and is also a part of it: that is the units from which the numbers are composed, as well as each number in its wholeness, and each counted individually.⁴⁰ In this way, some sort of oneness can be found in everything, on every level of reality, from the Highest God – possessing the highest degree of perfect oneness – to every material, countable object. Al-Shahrastānī summarizes this idea as follows:

The oneness is thus never disconnected from the beings and this oneness is acquired from the oneness of the Highest Creator, it stays with all beings despite the fact that in their essence they are plural.⁴¹

The oneness (*waḥda*) is therefore connected to existence, and the oneness of the Creator is considered to be his creative power. Once again the text focuses on the Creator, and the subsequent narrative of oneness is structured accordingly.

It is difficult to identify similar divisions of oneness in Greek Pythagoreanism, and al-Shahrastānī's source is virtually impossible to identify; moreover, the monotheistic, creationist, and Islamic perspective of these passages is obvious. However, despite these reservations, it is still possible to identify elements within the text that can be traced back to the Greek Pythagorean tradition (or at least to its Neoplatonic version, as suggested by D. Kövendi).⁴² In this way, the text testifies to a transfer of the Greek Pythagorean notions into the Arabic tradition. Thus, first of all, the establishment of types and levels of oneness (*hen* or *monas*) is not far removed from the late antique version of Pythagorean doctrine.⁴³ Moreover, the identification of the Intellect (*aql*, *nous*) with the one (*monad*) – which al-Shahrastānī could have found in the *Placita philosophorum*⁴⁴ – is also present in other Greek texts relating (or purporting to relate) Pythagorean ideas.⁴⁵ Of course, the presentation of Pythagoreanism in emanationist terms is completely anachronistic; yet Arabic philosophers considered this terminology to be elementary to the philosophical tradition reaching back to its Greek beginnings. Furthermore, late antique philosophers had already used these notions to describe Pythagorean

39 Ibid., 266.

40 C. Baffioni has observed that al-Shahrastānī here follows one of the principles of Islamic philosophy, according to which the accidental character of the world implies the existence of the eternal, unchangeable God, who in his capacity of the Creator grants the world his oneness (Baffioni 1983, 320–324).

41 Al-Shahrastānī 1846, 267.

42 Altheim 1962, 45–55.

43 Anon. VP in Phot. 438b33–35; Hippol. Haer. 1.2; 4.23; 51; 6.24; Simp. in Ph. 9.181, 7–30; 230, 34. 44 Daiber 1980, 118–119.

45 Eus. PE 14.16, 6; Nicom. in Phot. 143a22; Theon Sm. 100.1–8.

doctrine, and this approach was transferred to the Arabic world along with the other elements of the late antique understanding of Pythagoreanism.⁴⁶

Thus, al-Shahrastānī's text does not contain a coherent exposition of the Pythagorean theory of number; it is only possible to distinguish elements which he assembled into a single (albeit chaotic) narrative. However we must bear in mind that his aim was not to present a clear, logical philosophical doctrine. For instance, immediately following the passages summarized above, al-Shahrastānī focuses on new ideas:

Pythagoras also had a theory of number and of what is counted, in which he differed from all the sages who preceded him as well as from those who followed him. Thus, he distinguished number from what is counted, in the same way in which form is distinguished from matter. He then described number as truly existing with the same existence as the form, and he proved that. And he said that number is the principle of all that exists and it is the first creature that was created by the Highest Creator. And the first number is the one.⁴⁷

As for this last statement, however, al-Shahrastānī later writes that, according to Pythagoras, one was not a number and that numbers began with two. This is, without question, an exposition of the classical Greek and specifically Pythagorean point of view.⁴⁸ One is not a number but rather a principle (*arche*) of numbers. The Greek Pythagorean tradition made a connection between this statement and the position that "number is the principle of all that exists;" from this they concluded that the number one (*monas* or *hen*) was the principle (*arche*) of the world. By contrast, al-Shahrastānī (or his source) understands that numbers are like forms in opposition to matter, but that they are nonetheless created, and God is the only one real creator. Immediately afterwards, al-Shahrastānī presents the subsequent numbers and their characteristics. His presentation of the number four (*arba'a*) deserves particular attention: he makes a connection between this number and the Pythagorean notion of *tetraktys* (*rubā'īya*) as the end (*nihāya* = Greek *telos*) and perfection (*kamāl*) of number. Al-Shahrastānī clearly took this from the *Placita philosophorum*; he also quotes the Pythagorean oath from the *Golden Verses* (v. 47–48, where the term *tetraktys* appears).⁴⁹

Later, al-Shahrastānī presents one more theory, this time attributing Neoplatonic hypostases to the four subsequent numbers: one, the Creator; two, the Intellect; three, the Soul; and four, Nature. In this way the first four numbers – those contained in the *tetraktys* – correspond to the four principles of the world;⁵⁰ this theory is already very close to the way in which the Ikhwān understood Pythag-

46 Simp. in *Ph.* 9.230, 34.

47 Al-Shahrastānī 1846, 267.

48 Cf. Baffioni 1983, 109–110.

49 Daiber 1980, 100–103; Al-Shahrastānī 1846, 267.

50 Al-Shahrastānī 1846, 268–269.

orean metaphysics. Al-Shahrastānī then presents his ideas regarding the first matter, the geometric proportions, and numbers as principles; he also quotes a passage from Ibn Sīna, as well as from Pseudo-Ammonius' doxography (which presents several of Pythagoras' views, including his notion of a world built from "simple and spiritual" melodies, of the hierarchy of worlds, and of man as micro-cosm).

Finally, Chrysippus and Zeno appear as followers of Pythagoras in his doctrine of the Creator; we also find the doctrine of Heraclitus and Hippasus on fire as the principle of beings, as well as the atomism of Democritus and Epicurus.⁵¹ One is thus presented with a considerable number of theories that either differ from one another or simply repeat earlier theories in a slightly modified way. The text is not organized in a clear, coherent narrative and, as such, it provides only a selection from different sources of information collected without much in the way of critical historical or philosophical evaluation. Contrary to other Arabic authors writing about Pythagoras, however, al-Shahrastānī is particularly interested in metaphysics, and the doctrine of numbers in particular. Moreover, he writes about different groups among Pythagoreans: while Arabic authors normally focus only on the founder, al-Shahrastānī cites both anonymous followers⁵² and those identified by name, including Heraclitus and Hippasus (considered Pythagoreans, following the *Placita philosophorum*). There can be no doubt that al-Shahrastānī's knowledge of Pythagoreanism was far greater and more detailed than that of the Ikhwān: at the very least, his awareness of the internal diversity of this philosophical current contrasts with the Ikhwān's coherent and simple narrative.

Conclusions

To conclude, let us first focus on those elements common to the two texts that I have discussed here (as well as to Pseudo-Ammonius' doxography, which has been mentioned several times). First and foremost, it is the unconditional transcendence of the God-Creator that makes it necessary to position Him as being transcendent with regard to the numbers. For our Arabic authors, this monotheistic and creationist worldview is closely related to Neoplatonic emanationism and the hierarchy of hypostases, to which any presentation of Pythagorean metaphysics is always adapted. This is the lens through which our Arabic authors perceive Pythagorean metaphysics.

As for the differences between them, they result from the different aims and characteristics of their texts. Many of the differences reflect contemporary attitudes toward the Pythagorean tradition, and toward Greek philosophy in general. Discrepancies can also be attributed to the respective authors' methods of working with and processing their source material. Al-Shahrastānī's approach

⁵¹ Ibid., 277.

⁵² Ibid., 269; 276.

was typical of the medieval historian: having effortfully gathered his sources, he then assembled the quotations into a single, rather incoherent narrative. In his great opus, he relates the Pythagorean doctrine as just one of several intellectual traditions. Since the purpose of his work is to make evident the immense variety of human beliefs and doctrines, al-Shahrastānī wished to increase the diversity of theories within each chapter rather than attempting to unify or simplify them. One of the consequences of this approach is that there are several elements in his presentation of Pythagoreanism that can be securely traced back to ancient phases of this philosophical tradition, and which were transferred into the Arabic Middle Ages from the Greek world of Late Antiquity.

On the other hand, the Ikhwān al-Ṣafā' represent a completely different approach to the historical substance of Pythagorean doctrine, an approach which is philosophical in the same way that al-Shahrastānī's is historical. The Ikhwān's description of Pythagorean metaphysics is actually an exposition of their own doctrine, inspired by a version of Pythagoreanism conceived in their own specific way. They had access to certain sources which were transferred from the Greek tradition, but these texts were not very numerous and the Ikhwān modified the ideas in these texts according to their own views.⁵³ Whereas al-Shahrastānī's approach is closer to the original sources and, at least indirectly, to the original Greek philosophy, the approach of the Ikhwān was creative and consistent, and accompanied by reflections on the concept, which they decided to absorb into their own philosophy. As a result, the genuine historical doctrine was of interest to them only in so far as it was helpful for describing reality in their own way.

The Ikhwān were self-conscious in this respect, and one finds an interesting description of their approach to earlier philosophical theories in the following passage from the epistle "On Arithmetic:"

When those philosophers who used to discuss the science of the soul before the descent of the Qur'ān, the New Testament [Gospels], and the Torah inquired into the science of the soul with the natural talents of their pure minds, they deduced the knowledge of its essence by the conclusions of their reasoning. This induced them to compose philosophical books (...). But because of extensive discourse in them and their transmission from language to language, one cannot understand their meaning or know the goal of their authors. The understanding of the meaning of these books is closed to those who inspect them and their authors' goals trouble those who examine them. We have taken the core of their meaning and the highest goals of their authors and we have presented them as briefly as possible in fifty-two treatises of which this is the first.⁵⁴

53 According to A. Straface the central and most important doctrine of the Ikhwān al-Ṣafā' was prophetic Ismaili emanationism, into which they integrated Pythagorean numerology, which they changed and adapted to this religious system (Straface 1987).

54 El-Bizri 2012, 98–99 [68–69].

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Pythagoras and the “Perfect” Churches of the Renaissance

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The increasingly significant presence of Plato in Renaissance thought lent importance to the basic concept that the universe is made up of contraries (such as odd and even, light and dark, good and bad) and the idea that a single god incorporates and manages all these in his person and in his creation of the universe. The enigmatic language with which Plato describes cosmic structure, the ordering of the world, and the achievement of equilibrium doubtless exemplified, for his devotees in the Renaissance, the reticence attributed to Pythagoras in ancient and Renaissance literature.¹ It was Pythagoras who was believed to have taught Plato to express ideas indirectly, rather than directly, for fear of their corruption by the uninitiated. The cosmos was an admirable and beautiful firmament that exuded order and harmony. This was reflected in the significance of number which, ultimately based on the four elements, could be added, subtracted, and otherwise compounded in different ways in order to explain the mysteries of the universe. At the center of all things was the Monad, or number 1, which, being godlike, was the origin of all things. The concept of universal order incorporated, for many followers of Plato, and therefore of Pythagoras, moral reform that opposed war, litigation, excessive luxury, familial abuse, and other forms of depravity. It urged frugality, restraint, communal friendship, sharing property, and the practice of piety and justice. Earthly behavior thus reflected universal order, enabling humankind to reach God.

Cardinals Basilios Bessarion and Nicholas of Cusa, the one Greek and the other German, were the two most eminent guiding lights in the development of these ideas in early and mid-fifteenth century Italy. Their influence on Leon Battista Alberti, a young intellectual contemporary of theirs in these years and not yet an architect, would be profound.

Cardinal Bessarion argued passionately against “excessive” religious piety (of Christians as well as neo-pagans). The major theme that animated virtually all the writings of this erudite humanist was the reconciliation of opposites. This

1 See esp. the *Timaeus*, which was, essentially, the only work of Plato known throughout the Middle Ages and was highly regarded during the Renaissance. For a fuller discussion of the diffusion of Platonic knowledge and its relation to the reputation of Pythagoras in the Renaissance, see Joost-Gaugier 2009, *passim*.

theme was exemplified in the harmonizing of Hellenism with Christianity that he proposed, a highly original aim, quite different from the goals of any of his predecessors. This goal of reconciliation is especially evident in his aspiration to unite the Greek Orthodox and Roman Catholic churches, or East and West. The active and distinguished role he played to this end can be seen in the magisterial discourse he delivered to the Greek delegation at the Great Council of Florence in late 1439. Dissention is bad, he proclaimed, union brings peace. There must be concord. Contraries must meet in a middle ground in order to achieve harmony. The tumultuous controversy raging in Italy at this time concerning the relative importance of Plato and Aristotle had led to disputations among the learned, many of them acrid, as to which of the two was most important. The wise Bessarion entered the fray by writing a long and learned treatise, *In calumniatorem Platonis*, that not only showed that both were compatible with and important for Christianity, but also aimed to reconcile the two philosophers and their philosophies.² His visionary approach considered the major doctrines of each and advocated a middle ground that joined both. Bessarion defended Plato's use of enigma by saying that this was because Plato valued Pythagorean reliance on oral tradition. He also explained that, influenced by his teacher Pythagoras, Plato's high esteem for number, especially 3 and 4, led him to study harmony and to realize it was obtained by reconciling contraries. The ideas of Plato and Aristotle were, he urged, basically in agreement with each other and with Christianity. Despite his great fame and influence, this rich prelate of two churches lived a life of extreme simplicity and frugality, and was known to have avoided luxury of every sort. Except one. The only necessity he regarded as important was to have sufficient funds to enable him to have manuscripts copied and to purchase books for the great personal library he would, at his death, bequeath to the City of Venice.

Cardinal Cusanus shared a wide range of interests with his Greek colleague in Italy, Bessarion. In an early work, *De concordantia catholica*, he made an impassioned plea for concord and the reconciliation of differences that had arisen within the Catholic church.³ Speaking as a canon lawyer, in this work he makes many practical suggestions for replacing dissention with synthesis. He argues that a harmonious universe ruled by the moderation of a mutually agreed upon order would eliminate dissention and division into parts, or factions. In another work, *De docta ignorantia*, he speaks as a mathematician.⁴ His greatest praise is for indivisible oneness as absolute and infinite for it absorbs all universal capabilities into one. The number 3 is oneness just as oneness is threeness – an obvious reference to the Trinity. The triad is beautiful beyond all numbers, he proclaimed, because it is the first to make actual the potentialities of the Monad.⁵ He extols the triangle and its progeny as the most perfect rectilinear figures, the circle as the most

2 Joannes (Basilios) Cardinal Bessarion, *Adversus calumniatorem Platonis*, 1468.

3 Nicholas Cardinal Cusanus, *De concordantia catholica*, 1434.

4 Nicholas Cardinal Cusanus, *De docta ignorantia*, 1440.

5 *Ibid.*, I.7, 10, and 12.

perfect plane figure, and the sphere as the most perfect solid figure. The cube is the earth and its triangular manifestation constitutes the pyramidal shape. Contemplation of these forms leads to the knowledge of God. Cusanus saw God as the master of proportion. God so valued proportion that, in establishing the interrelationship of parts, he allowed for each part to have an immutable relation to the whole. Thus is everything unified in perfect harmony – a harmony that, reflecting the perfection of God, will live forever. When that harmony is destroyed, he explained, all things will be dissolved. Speaking as a theologian (in *De Idiota de mente*), he argues again for peaceful harmony.⁶ Speaking as a cosmographer (in *De ludo globi*) he describes the sun as the center of the universe, which is God, and explains that everything emanates from it (or him).⁷ In his personal life Cusanus was noted for his extraordinary patience, honesty, and altruism, as well as for his special interest in helping others to achieve good health. An example of the latter is the hospital he founded at Cues (in Germany), his birthplace, where his heart is buried (while his body is buried in San Pietro in Vincoli in Rome).

A learned humanist and mathematician, Alberti formed his ideas in the world of Bessarion and Cusanus. He became the first Renaissance architect to theorize on how "modern" buildings should be designed. This subject dominates his architectural treatise, the *De re aedificatoria*, composed in the early 1450s but not published until 1485, thirteen years after his death.⁸ Though its organization and contents were in large part inspired by his reading of Vitruvius, his theories reflect the intellectual bouquet of ideas current in contemporary theology and mathematics. Alberti also writes with admiration about values of frugality and parsimony. He suggests that, based on the dictum of Pythagoras, these values ought to be applied to domestic architecture as well as to religious architecture. He explicitly says he is following the moral values of "the most prudent and modest of our ancestors" who in his life style practiced frugality. This of course would be Pythagoras. "Extravagance I detest!" Alberti continues in one of his few emotional statements, another view corresponding with those attributed to Pythagoras.⁹ His position opposing an excess of adornment leads him to praise simplicity and plainness as beautiful and ennobling virtues in his discussion of the aims of the new modern architecture he proposes. Beauty, he ascertains, echoing the words of Cusanus, results when the parts of a whole are locked together, consonant with each other according to number, form, and proportion. The number 1 (the Monad), he explains, is perfection because it is the perfect cube ($1 \times 1 \times 1 = 1$); it is therefore God.

For Alberti the epitome of architectural form is the ideal church based on the purest of all forms, the circle which, in its solid extension, is the sphere. The beholder's glance sweeps around instantaneously and unstopably because this

6 Nicholas Cardinal Cusanus, *De idiota de mente*, 1450.

7 Nicholas Cardinal Cusanus, *De ludo globi*, 1463.

8 Leon Battista Alberti, *De re aedificatoria*, 1485.

9 *Ibid.*, IX.1 (cf. trans. Rykwert / Leach / Tavernor 1988).

form, having no beginning and no end, is free of interruption and disruption. The large central dome that crowns his ideal church reaffirms this importance and, being single (referring to its location in the center), is godlike. Alberti's discussion of proportion stresses that in balancing opposites one finds the mean. In the rational integration of all parts of the building, each part will be integrated into the whole so that nothing can be added or subtracted without destroying the integrity of the whole. Together numbers, form, and proportion form a harmonic relationship which echoes the harmony of the universe – *concinnitas*, or concinnity. This is an ordered arrangement similar to a concord of sounds locked together by their relationship – or harmony – the greatest discovery attributed by Antiquity to Pythagoras. Thus Alberti, taking his cue from the past, was proposing something very modern: the first Renaissance canon of proportion for architecture. He proposed similar canons of order for sculpture and painting, most notably a system of artificial perspective that would unite all parts of a given composition. In all cases, these canons were based on geometry – the square, the cube, the sphere, the triangle, and the pyramid.

While Alberti's new theories may have been far easier to explicate in the late 1450s when he wrote his revolutionary treatise putting forward the importance of symmetry and proportion than in the next decade when he found himself engaged in the practicalities of construction in a world whose workmen had been trained in Gothic methods, the extant forms of the structures he designed make clear his struggles to practice what he preached. But it was the churches ("temples") of his followers that more perfectly demonstrated the idea that a sphere (the heavens) was suspended above the cube of the earth. Through geometry and number, they constructed a system of objective, concrete, tangible beauty that could be measured and interlocked in what Alberti had called *concinnitas*, the harmony of all parts fitted together.¹⁰

At this very time Cardinal Bessarion was advocating mathematics as the tool of harmony and seeking harmony in all aspects of scholarship while Alberti's friend the mathematician and theologian Cardinal Cusanus was writing that God used arithmetic (number), geometry (form), and music (proportion) to create a world in which every element takes its place in the harmony created by its immutable relation to the whole.

In the countryside near the ancient Umbrian city of Cortona a building designed by the architect (and painter) Francesco di Giorgio was the first example of a centrally planned church that, following Alberti's example and built shortly after his death, incorporated notions attributed to Pythagoras in late fifteenth century Italy (fig. 1). Though the church of Santa Maria delle Grazie in Calcinaio, begun in about 1485 (the year in which Alberti's treatise was published), was based on the traditional Latin cross plan (with one arm of greater length than the other three), its departure from traditional conceptual language, in terms of its

¹⁰ On this see Joost-Gaugier 2009, 181.



Fig. 1: Santa Maria delle Grazie al Calcinai, near Cortona.

(Photo: Shannon Pritchard)

structure, is immediately apparent in the fact that the hitherto ever-present side aisles were eliminated in order to express this unity. Thus the observer is immediately swept to the centre, where the brilliant light of the sky pours in through the 8 clear glass (as opposed to stained glass) windows of the dome's lantern and drum, totalling 16 windows. Because they were doubled, the number of the 8 dividing pilasters of the dome's drum also totalled 16. According to ancient Pythagorean numerical theory well known in the Renaissance, 8 was the embracer of all harmonies because its relation to 2 and 4 made it the first number to be “equal times equal.”¹¹ As for the number 16, it signified the perfect temple, according to Alberti's ancient Roman mentor Vitruvius, who, like Alberti, was an admirer of Pythagoras. Thus, in terms of its numerical harmony, the conflation of the cube ($22 \times 2 = 8$), the square ($4 \times 4 = 16$), and the circle of the dome, all contained within this singular structure, suggest the ultimate Monad, or the perfection of God himself. This early experiment reveals the architect's struggle to conceptualize the dome in perfect proportion with the unified arms of the body of the church.

In the Tuscan city of Prato, Giuliano da Sangallo built the Church of Santa Maria delle Carceri in the late fifteenth century (fig. 2), at about the same time as Francesco di Giorgio's experimental church near Cortona. Though unfinished, the church of Santa Maria delle Carceri provides the first example of a pure Greek cross plan (4 arms of equal length that perfectly balance each other), as well as regularity of form, harmony of proportion, and concentration on the center. Dominated by a single crowning dome based on the circle and the sphere, this church initiates the example that Alberti had dreamed of: perfect centralized geometric form which creates perfect harmony. Here the dome (heaven) rests on the cube (earth).

Constructed a few decades later, the Church of Santa Maria della Consolazione at Todi, an ancient town in Umbria, exemplifies the consummation of this idea (fig. 3). Its form invites us to remember Cusanus' idea that the Divine Mind

11 Pseudo-Iamblichus, *The Theology of Arithmetic: On the Mystical, Mathematical and Cosmological Symbolism of the First Ten Numbers* (trans. Waterfield 1988, 102).



Fig. 2. Santa Maria delle Carceri, Prato.
(Photo: author)



Fig. 3. Santa Maria della Consolazione, Todi.
(Photo: author)

manifests itself, as Alberti had articulated for architecture, as the indivisible perfect unity in the circle which, as the dome, represents the cosmos. In a dazzling display of geometric purity, the dome of this church rests on a cube, that is, the world below, unfolding into 4 apses. Thus opposites are balanced and divergences merged into one. According to Cusanus, "the number 4, which is an unfolding of oneness, contains the power of every number. For universal oneness is instantiated in the four onenesses that are configured in a fitting order."¹² Here this is finally achieved: in the language of Cusanus and according to the vision articulated by Alberti, allowing for God to rule as the unity and light from above. Though the architect of this perfect church which could, in its entirety, be fitted into a circle is not known with certainty, it is known that Todi had been a place frequently visited by Cusanus, and it was the place where he had died in 1464.

From the early sixteenth century on, Italian architects experimented ever more energetically with these Pythagorean concepts which they understood through Alberti's visionary ideas. This led them to conceive, especially through the eyes of Bramante and Michelangelo, of the most important church of Christendom, Saint Peter's, as a centralized plan (with four arms of equal length) articulating a perfectly centralized building composed of unifying Pythagorean shapes and numbers that expressed perfect harmony. Thus, in reflecting the cosmic structure

12 Nicholas Cardinal Cusanus, *De conjecturis* I.3 (trans. Hopkins 2001, 168).

and God’s ordering of the world, some of the greatest architectural monuments of the Renaissance owed their modernity to an inspirational force that, paradoxically, was conceived in the distant past.

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Kabbalah as a Transfer of Pythagorean Number Theory: The Case of Johannes Reuchlin's *De Arte Cabalistica**

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1 Introduction

When Reuchlin's chief work on the Kabbalah, *De Arte Cabalistica*, was published in 1517, the papal court had temporarily adjourned the case against Hoogstraten on the lawfulness of possessing Jewish books and it looked as if Reuchlin would be able to win his trial in Rome against Hoogstraten. Reuchlin's decision to publish his book at this precise juncture was surely also an attempt to take the initiative in the conflict over Jewish books in general and the Christian Kabbalah in particular. *De Arte Cabalistica* should thus primarily be understood as an intervention in the battle of the books, as evidence for Reuchlin's claim that the Jewish Kabbalah at its core proclaims Christianity, and as an argument that it is absurd to destroy the ancient revelations secretly containing the speculative heart of the Christian faith. Because continuity between the Kabbalah and Christianity was beyond all doubt for Reuchlin, his concept of the Christian Kabbalah was not tied only to the Jewish tradition. He rather saw the Kabbalah in the tradition of theosophy, which had been part of Christian speculative theology since Dionysius the Areopagite. The revered Cardinal Nicholas of Cusa, after all, produced his theory of numbers in the context of Dionysian theosophy. Thus Reuchlin's Christian Kabbalah was a mixture of Christian Neoplatonism, Pythagoreanism, and Jewish-Kabbalistic sources, which he believed speculatively proved the truth of the Christian religion. *De Arte Cabalistica* demonstrates this view thoroughly and effectively.

Like *De Verbo Mirifico*, *De Arte Cabalistica* takes the form of a three-person dialogue, which is carried out over three days. The conversants are given unmistakable identities: Marranus, a circumcised and baptized Muslim, Philolaus, a Pythagorean, and, finally, Simon, a Jew well versed in the Kabbalah. The book is dedicated to Pope Leo X (Giovanni Medici 1513–1521), under whom Reuchlin's trial regarding his *Augenspiegel* and defence of Jewish literature was pending. Reuchlin situates himself in the humanist philosophical tradition in this work, and casts himself as the renewer of Pythagoreanism. He mentions the occasional

* This chapter has been translated into English by Millay Hyatt. It consists of excerpts from the book by W. Schmidt-Biggemann, *The History of Christian Cabbala* (forthcoming; the book will be the translation of Schmidt-Biggemann 2012).

engagement with Pythagoreanism at the court of the Pope's father, Lorenzo de' Medici, but takes credit himself for having renewed Pythagorean thought. He avails himself in this context of Nicholas of Cusa's vocabulary, who, in his key Pythagorean work *De Coniecturis*, referred to his science of numbers as symbolic.¹ Reuchlin describes, in passing, the Adamite origins of the Kabbalah, which, he writes, was first communicated to the biblical forefathers and then left its mark on Greek philosophy. Pythagoras was the first to set it down in writing before it was transmitted back to the Jews in the version handed down to us. Reuchlin also appeals to humanist national pride when he writes in the dedication:

Marsilius edited Plato for Italy; Jacob Faber Stapulensis restored Aristotle for the French. I, Capnio, want to join their number and hereby dedicate to your name the Pythagoras I have revived for the Germans. This, however, would not have been possible without the Kabbalah of the Hebrews, as Pythagoras' philosophy had its starting point in the teachings of the Kabbalists, which, derived from the memory of the Fathers and parting from Magna Graecia, in turn formed the basis of the books of the Kabbalists. Almost everything had to be reconstructed from there. I wrote about the *ars Cabalistica*, which is a symbolic philosophy, so that the Pythagorean teachings might become better known among scholars.²

This promise is made good on in a three-day dialogue in Frankfurt. On the first day, a Friday, the Jew Simon initiates the other two into the Jewish tradition combining the Kabbalah with natural philosophy and biblical doctrine. This tradition traces the handing down of the wisdom of Adam through world history, *translatio sapientiae*, and works out the messianic meaning of this Kabbalah. On the second day, Simon is absent because the law of the Sabbath forbids him from participating. So it is Philolaus who explicates Pythagorean philosophy to the astounded Marranus, showing it to conform in its most essential elements to the Jewish tradition. This sets the stage for Simon to explain the specifics of Kabbalistic wisdom and symbolism, on Sunday, the third day.

1 Cf. *De coniecturis* 1.4: "Symbolicum exemplar rerum numerus est." *De docta ignorantia* 1.12: the absolute maximum can only be determined "symbolice."

2 "Italiae Marsilius Platonem edidit, Gallis Aristotelem Ia. Faber Stapulensis restauravit. Implebo numerum et Capnio ego Germanis per me renascentem Pythagoram tuo nomini dicatum exhibeo. Id tamen absque Hebraeorum Cabbala fieri non potuit, eò quod Pythagorae philosophia de Cabalaeorum praeceptis initia duxit, quae patrum memoria discedens e magna Graecia rursus in Cabalistarum volumina incubuit. Eruenda igitur inde fuerant fere omnia. Quare de arte Cabalistica, quae symbolica philosophia est scripsi, ut Pythagoraeorum dogmata studiosis fierent notiora." I quote from the facsimile edition M. / S. Goodman 1993. The translation in this widely used edition is very imprecise and incorrect in many places, but the volume contains the facsimile reprint of the first edition, which has been retranslated into English here. I also referred to the annotated edition by Secret 1995, and, more importantly, to the excellent Italian edition: Busi / Campanini 1995.

2 A Kabbalistic Pythagoras?

The second book of *De Arte Cabalistica* is purely Pythagorean in content. Its function is to prove that Pythagoras was the first philosopher in the Greek tradition and that he adopted Kabbalistic teachings. As Simon is no longer present, the discussion takes place between Philolaus and Marranus (the Muslim), with Philolaus holding the floor most of the time.

Philolaus begins by giving a historical introduction to Pythagoras, drawing on Alexander Polyhistor, Aristobulus,³ Antiphon, who claimed that Pythagoras was in Arabia and Chaldaea, and finally – and this is most likely the main source here next to Clement of Alexandria – Eusebius' *Praeparatio Evangelica*. The assertion that this "Pythagorean wisdom" also spread among the Arabs, especially to Al-Fārābī, is part of Reuchlin's concept of *translatio sapientiae*.⁴

Reuchlin then lays out the epistemological, dogmatic, and historical significance of Pythagoreanism. He first turns to the criticism of logic and syllogisms, which constitutes a polemical, foundational element of his philosophy. Language, in Reuchlin's view, originated with Adam. The story of the tower of Babel and the confusion of languages also constitute important elements of his criticism of logic.⁵ Syllogisms, he writes, developed out of this confusion of language and reason.⁶ True original knowledge, on the other hand, comes from the divine, as Aristotle himself confesses. Reuchlin cites Ammonius, according to whom *nous*, *dianoia*, *doxa*, *phantasia*, and *aesthesis* are the key terms of cognition for Aristotle – and neither *nous* nor *aisthesis* require syllogisms. For Reuchlin, the divine *nous* is particularly important.⁷ He identifies it with the sphere of the supraconceptual. Thus, for him, on the level of theosophy, syllogisms – and with them lower logic – are irrelevant.

Knowing God, then, is to intensify and overcome logic.⁸ It is in this sense that Reuchlin combines his Pythagoreanism with *philosophia christiana*. He cites Jerome, Athanasius, and Gregory of Nazianzus as authorities on the supraconceptuality of God.⁹ Gregory, along with Dionysius, is one of Reuchlin's most highly esteemed Doctors of the Church.¹⁰ Most important for Reuchlin, however, is Dionysius the Areopagite, who, he avers, wrote his book on the divine names in a Pythagorean spirit and according to Pythagorean sources.¹¹ Dionysius the Areopagite's achievement, for Reuchlin, was to have brought together the Pythagorean and biblical sources on the names of God.¹²

3 As cited in Clement of Alexandria, *Stromata* 1.62.

4 On Al-Fārābī, cf. Reuchlin, *De Arte Cabalistica* 133.

5 Reuchlin, *De Arte Cabalistica* 135.

6 Ibid., 134.

7 Ibid., 136.

8 Ibid., 137.

9 Ibid., 138.

10 Ibid., 140.

11 Ibid., 140.

12 Ibid., 142.

The link made here between Greek and Hebrew sources is not accidental. In the course of *translatio sapientiae*, Pythagorean teaching came from Palestine to Magna Graecia, for which Reuchlin cites Gregory of Nazianzus' polemic against Julian the Apostate as evidence. This proves for him that, "Cabalistarum et Pythagoristarum inter se cuncta eiusdem esse farinae."¹³

3 The main teachings of the Pythagoreans according to Reuchlin: *possest* and the world of numbers

The doctrines of the different world spheres and of messianism were already the main intellectual elements in the first book of *De Arte Cabalistica*, and Reuchlin finds both of them in Pythagoreanism as well. Here too he relies on Cusa's teachings. As in the metaphysics and cosmology of the first book, Reuchlin is concerned with establishing a third sphere of the trans-intellectual and supersubstantial divine above the sensual world and the world of understanding. *Aisthesis*, sense perception, constitutes the lowest sphere in Reuchlin's Pythagorean world. The middle sphere is made up of ether, the gods, and principles informing the world. The highest sphere is the divine sphere, in Pythagorean terms the absolute beginning, *possest*, and a dynamic world of numbers.

The concepts of *possest* (a Latin word-play meaning "can is") and of "symbolic theology / philosophy" Reuchlin uses come from Nicholas of Cusa. In 1460, Nicholas wrote *De possest*, in which he characterized the nature of God as the coincidence of possibility and reality.¹⁴ He defines "possest" as the "possible-real" of the divine, in which ability and being are one. The goal of all knowledge is "visio Dei," which for Nicholas is enigmatically visible in mathematics.¹⁵ For God, being possible is the same thing as being real, and as "possest" he is constantly realizing himself. Cusa describes this self-realization as the fundamental process of tripartite divine life: the Father, who is beginning and possibility, realizes himself in his Son, who emerged from the beginning and is the essential likeness of the Father, while the Holy Spirit is the connection of the two. The divine principle imbues the world as this self-generated life, which Nicholas also understands as the genesis of the original numbers 1, 2, and 3.¹⁶ God is thus the "not-other." He is not identical with the world, but nor is he completely separated from it, in that he guarantees its existence by defining its being as its principle, thereby protecting it from destruction. And yet he remains nothing other than himself, concealed within himself and defining all being.

¹³ Ibid., 146.

¹⁴ Reuchlin could have known this text well, as it was included in Faber Stapulensis' [= Jacques Lefèvre d'Étaples] complete edition, to which he himself had contributed manuscripts, and which was published in 1514, three years before *De Arte Cabalistica*; cf. tomus I, fols. clxxviii r.–clxxxiii v.

¹⁵ Hopkins 1986, 113.

¹⁶ Nicholas of Cusa, *De Possest* 119–123.

Reuchlin adopts this Cusan idea in its entirety. "Possest" for him is the beginning of the highest of the three worlds, the beginning in the infinite: "Per infinitum nihil aliud significans quam ipsum posse."¹⁷ While Reuchlin traces the argument back to Parmenides (by way of Plato), he reproduces Cusa's terminology:

For there is nothing that was, or is, or will be, beyond or within the heavens or on earth, in corporeal or incorporeal beings, in angels, in men, in beasts, in plants, or in the whole of nature that is not can-is (*possest*) or, to be grammatically correct, potent-is (*potis est*).¹⁸

From this first principle, Pythagorean (and Hesiodic) physics – that is, chaos – emerged, explains Philolaus / Reuchlin.¹⁹ Chaos is understood here as *prima materia*, informed by the order of the spiritual world, which, in turn, is represented by numbers. This order can be derived from the indefinite One of "possest" as a theory of numbers and as a theology of the Trinity. One itself is not a definite number, and can only be grasped in conjunction with the number two, which is why "Duo primus numerus est, unum vero principium numeri."²⁰ The absolute separation of two into unmediated units has to be mediated by the number three, so as to make clear that one and two refer to the same thing, a third. This is the numerical explanation of the Trinity, "So, from the one producing in the divine and from the two that are produced, threeness emerges."²¹

Reuchlin, then, does not take the number three as a symbol of that which combines one and two, but, following the Christian theology of the Trinity, he thinks instead in terms of three independent units (in the Trinity these are persons) which are one substance. This allows him to argue that the essence of the Trinity is formally different from threeness in number theory.

Reuchlin then generates a fourth element, differing from the original Trinity, in this train of thought. The number four allows him to build on the entire Pythagorean tradition of the Tetractys, one of whose basic theorems is that the first four numbers add up to ten ($1 + 2 + 3 + 4 = 10$).²² The number four is also represented as a holy symbol by the letter Y, which normally stands for a fork in the road. It can also, however, be interpreted as a particular perspective on a pyramid, and as such makes visible the connection between geometry, arithmetic, and symbolism.²³ Finally – and this is important for the doctrine of the name of God – the

17 Reuchlin, *De Arte Cabalistica* 152.

18 Ibid., 152: "Nihil enim fuit, uel est, uel erit in supercoelestibus, coelestibus, terrenis, corporeis aut incorporeis, in angelis, in hominibus, in brutis, in plantis, in tota universi natura quod non **possest** uel ut grammaticè loquamur, potis est" (my emphasis).

19 Ibid., 152.

20 Ibid., 154.

21 Ibid., 154: "Ex uno itaque in divinis producente, duobusque productis, trinitas oritur."

22 Ibid., 154.

23 Reuchlin learned about this theory from Virgil's *Aeneid* (10.101), where the Gods' house, the number 10, is described as a pyramid: "decimo Deum domus alta, cuius quidem culmen est unitas, parietes trinitatis et superficies quaternitas." Quoted in Reuchlin, *De Arte Cabalistica* 192.

Tetractys can be connected to the tetragram. Reuchlin in fact conjectures that Pythagoras' theory of the Tetractys evolved directly from his interpretation of the tetragram.²⁴

4 Mythological Messianism

Messianism plays a significant role in the entire first book of *De Arte Cabalistica*. Reuchlin discovers Messianism in his version of Greek mythology, which he interprets typologically in relation to Christ. Marranus expounds on this connection, interpreting the Greek pantheon with an emphasis on gods of healing. The most important of these, he argues, are Asclepius, whom Jupiter sent into the world to bring healing, and Hercules, who heroically saved the world from its afflictions.²⁵ Reuchlin explicates this allegory of the gods by referencing Plato's *Timaeus*, where he quotes God as saying: "What I create is indissoluble according to my will. Every other connection can be dissolved." This order and eternity of the world is "vera salus."²⁶ The Christian, of course, is reminded here of the *New Testament* (Matthew 16:18 and Matthew 18:18): "Whatever you bind on earth will be bound in heaven."

For Reuchlin, salvation applies only to the earthly, variable, and fallen world. The eternally unchanging world of the intelligences does not need to be saved, nor, of course, does the divine world.²⁷ Reuchlin believes that this theory, which he discovered in the "true Pythagoreans," was a Greek appropriation of the originally pure Jewish Kabbalah.

5 Problems of metempsychosis

It is well established that the Pythagoreans believed in metempsychosis, a delicate matter for Reuchlin, since it calls into question the dogma of the resurrection of the body. This issue had been part of an ongoing discussion ever since the Fifth Lateran Council had established as dogma the immortality of the individual soul. Reuchlin reinterprets this theory, arguing that the soul is not an individual soul, but a spiritual type, and combines this idea with the notion of the soul as the form of the body. The soul shapes, the body is shaped. Thus every body is uniquely shaped, while the shaping element can be used more than once. This corresponds precisely to Thomas Aquinas' theory of individuation, according to which *materia signata* is individuating. It follows that the shaper, the soul, can be understood as a collective species-soul. This interpretation is a tolerable attempt to validate dogmatically the theory of the transmigration of souls. Reuchlin writes that men

24 Reuchlin, *De Arte Cabalistica* 156.

25 On Asclepius, cf. Reuchlin, *De Arte Cabalistica* 156 (the story is found in Julian the Apostate, *Contra Galilaeos* 200a); on Hercules, Reuchlin, *De Arte Cabalistica* 162.

26 The reference is to Plato, *Timaeus* 41a. Reuchlin, *De Arte Cabalistica* 164: "Quae a me facta, indissolubilia sunt, me uolente, alioqui ligatum quaedam omne, dissolubile est."

27 Reuchlin, *De Arte Cabalistica* 166.

in this sense can be called “animal divinum,” because the divine has manifested itself in their lives.²⁸

Reuchlin is particularly intent on making the teaching of life after death and the punishment of sins compatible with metempsychosis. There is, however, a typically Neoplatonic difficulty here: if the soul, in connection with its body, has done good or has sinned, it is no longer a species-soul, but the history of its actions are part of its identity. Reuchlin’s solution to the problem of the immortal species-soul versus the individual soul appears forced. According to Pythagoras, he writes, the bad souls have to suffer in phantom bodies like Ixion, Tantalus, Sisyphus, and Prometheus.²⁹ Reuchlin then connects this notion of illusory bodies with his ideas about witchcraft and ghosts.³⁰ He does not seem to be entirely satisfied with this interpretation himself, as he goes on to suggest typology as the actual explanation of the transmigration of souls. This is why, he writes, Socrates is called the Attic Moses and Cicero the Latin Demosthenes.³¹ Regardless of how the theory is to be understood, for Reuchlin it at least remains a reflection of the original Kabbalistic teaching of the immortality of the soul.

Because the transmission history of the holy, original Kabbalah becomes narrowly focused when it comes to Pythagoras, passing through him as if through the eye of a needle, all teachings associated with him must be measured against the standard of *philosophia perennis*. For Reuchlin, this perennial philosophy is evident even in the name of Zeus, the highest of the Greek gods, and the Roman god Jovis. He develops a complicated allegory here that brings together geometry, cosmology, and theology. His interpretation of the geometric pyramid as the house of God is based on Virgil (*Aeneid*, Book 10). Viewed from above, a pyramid looks like a Y, and is, as Timaeus of Locri sets out in his *De mundo*, the form of fire.³² Arithmologically, the pyramid is the figure that combines the power of one and two, and is the most simple figure after the point. One multiplied by itself reveals the power of cohering unity in the point; two multiplied by itself renders four, which unfolds as the simplest spatial form in the four corners and sides of the pyramid. Thus the powers of one and two are manifest in the pyramid, whose surface with its four triangles also points to the Trinity. Reuchlin claims that because the pyramid, as simplest form, represents fire, the Chaldaeans and the Hebrews believed that God was fire.³³ This divine fire that consumes all matter is like Jovis, who is pure form – bringing Jupiter and the one God of all mankind close together in the tradition of *philosophia perennis*. This is the God in whose

28 Ibid., 170.

29 Ibid., 172.

30 Ibid., 172.

31 Ibid., 172.

32 Timaeus Locrus, *Peri kosmou* 96b.

33 Reuchlin, *De Arte Cabalistica* 196. *Pyr* is the Greek word for fire and pyramid signifies flame. Cf. *Timaeus* 28b.

mind all simple, immaterial *formae separatae* exist discretely.³⁴ Reuchlin quotes Virgil: “O Father, O eternal power over men and gods, because of its salutary warmth the ancients called this spiritual sun Jupiter.” While this does not explicitly identify Jovis and YHWH with each other, it does insinuate a connection between their names.³⁵ Reuchlin is convinced that all important truths in pagan Greek and Roman wisdom ultimately derive from the Jewish tradition and that their meaning only becomes fully revealed in the context of Christian interpretation.³⁶ The participants in the Sabbath dialogue conclude that Pythagorean philosophy is the Greek tradition closest to its Kabbalistic origins. It is for this reason that Reuchlin, as he wrote in his letter of dedication to Pope Leo X, wants to renew Pythagorean philosophy.³⁷

6 Kabbalistic versus Pythagorean number theory

The third book is the actual book of Kabbalah. It summarizes the main theses of the Kabbalah of God’s name and Kabbalistic patterns of interpretation. Overall, this book’s function is to supply the framework constructed in the first and second books with examples and supporting evidence. There is the tacit assumption that the examples from Jewish Kabbalistic sources only ever confirm the notion of *philosophia perennis*, while the actual binding interpretation is always *lectio christiana*. Unlike in the first and second books, however, Reuchlin does not always insinuate the Christian interpretations here. He discusses many of the examples, especially from *gematria*, the interpretation of numbers, strictly in the Jewish context. More than anywhere else it becomes clear here in the third book that Reuchlin did not write *De Arte Cabalistica* for Jewish readers and thus not to proselytize, but rather as a defence of his position for a learned Christian public. It is to this audience that he addresses his claim that the Jewish Kabbalah conceals the secrets of the Trinity and of messianism.³⁸

As with the previous books, Reuchlin begins Book III with an epistemological justification. His intention, he writes, is to introduce the inner secrets of the Kabbalah. He always regarded this wisdom as being reserved for the highest

34 Reuchlin, *De Arte Cabalistica* 196–197.

35 Ibid., 196 (*Aeneid* 10.18): “Mundi eius conditio est, quod totus quidquid et purissima forma est, cuius asserunt Iovianem esse naturam, quae immortalia et mortalia informet, et fotu specifico cuncta utriusque Mundi in suo esse conservet, de quo extat illud Maronis: *O pater, ò hominum, divumque aeterna potestas*, propterea ob fomentum calorem spiritualis Sol veteribus Jupiter dictus est.”

36 Cf. Secret 1977, here 231. Steucho, *De Perenni Philosophia* (1530), ed. 1591, fols. 54–55, explicitly equates Zeus with Jehovah: “Vult igitur Plato Iovem esse Zena, a Graeco Zen, vivere. Quemadmodum scimus ab essendo vocatum hebraice Iehovah, qui forte est Ioves. Agnoscunt igitur eundem esse Iovem atque Deum. Qui dictus est ab Ethruscis, quorum sermo et litterae per omnes terras diffunderentur probaturque ex tribus linguis eandem esse Iovem atque Deum. Dicitur hebraice Iehovah, graece Dios, Deus latinum, Iehovah hebraicum Iovis latinum illud latinum Deus.”

37 Reuchlin, *De Arte Cabalistica* 38.

38 This is also why he begins Book 3 with a defence against the Cologne Dominicans.

level of being and knowledge, the divine, transrational sphere. This is why he has Simon, the Jew (now that it is Sunday he has rejoined the conversation), begin the third book with an interpretation of Jacob's ladder, the most important mystical metaphor for the ascent to the divine and the counterpart to Homer's "catena aurea."³⁹ Simon interprets Jacob's ladder epistemologically. The spirits ascending the ladder are the forms of things, which, the higher they rise, lose their materiality and thus their mutability and transience. In this way, they reach the second world, the world of pure forms. These pure forms descend to us, and we recognize them internally as the forms communicated to us by heaven. Philolaus immediately identifies this theory, which is reminiscent of Christian-Augustinian illuminatism, as Pythagorean.⁴⁰ Simon, who claims not to know what Pythagoreanism is, realizes that this is the very teaching that was "handed down from the ancient Kabbalists and is contained in the entire divine law of the Hebrews."⁴¹ For Simon, the fifty gates of insight, which Nachmanides explained in part at the beginning of his Torah interpretation, are the model for the "Pythagorean" interpretation that true inspiration comes from the divine sphere.⁴² For Nachmanides as well as for Reuchlin, the fifty gates of insight are the true way to the Kabbalah, opening up all conceivable Kabbalistic interpretations of the Hebrew alphabet, which they hold to be literally revealed by God. This alphabet contains the fifty gates of insight.

Everything Moses received through the gates of insight is contained in the divine law of the Jews, whether in a literal or allegorical sense, in spoken or in arithmetical meaning, in the geometric shapes of the letters (whether they are described or transposed), or in the harmonious sound of the letters: everything results from their shape, their connections, separations, contortions, direction, flaws, excess, smallness or greatness, culmination, closure, opening, and order.⁴³

This idea of alphabetical order based on number, shape, and combination holds both for the world in its entirety as well as for the written word. Thus the third book of *De Arte Cabalistica* also contains individual interpretations of the secret of numbers and letters.

Reuchlin first addresses Kabbalistic number theory, specifically of the number fifty, which he associates with the "fifty gates of insight." The number 72 is

39 Reuchlin, *De Arte Cabalistica* 240; *Genesis* 28.12, *Iliad* 12.19.

40 Ibid., 244.

41 Ibid., 244: "a priscis Cabalaeis tradita, et omnia lege diuina Hebraeorum complexa."

42 Cf. Busi / Campanini 1995, 150 n. 24.

43 Reuchlin, *De Arte Cabalistica* 246: "omne Moysi traditum per portas intelligentiae, contentum est in lege diuina Iudeorum, uel sensu literalis uel allegorico, per dictiones, uel arithmeticas suppositiones, uel geometricas literarum figuras siue descriptas seu transmutatas, uel harmoniae consonantias ex formis characterum, coniunctionibus, separationibus, tortuositate, directione, defectu, superabundantia, minoritate, maioriata, coronatione, clausura, apertura, et ordine resultantes."

also important, as it is both the number of angels as well as of the divine names. Next he gives the ten Sefirot a Trinitarian interpretation, and develops further the theory of $\aleph$, the number one. The second part of the book is taken up by the three Kabbalistic methods of interpretation, namely *temurah*, *notarikon*, and *gematria*. Finally Reuchlin puts forward a theory of Christian signs and their magical powers, with the symbolism of the cross and the tree introducing an element of Christology.

The number 50 connects the numbers 10 and 5. Both numbers are essential for Reuchlin – 5 because of the tetragram with the letter *Shin*, 10 as a Pythagorean number and because of its inclusion in the tetragram. In terms of natural philosophy, 50 can be interpreted as follows. There are five levels of corporeality: 1) elements, 2) corporeal things made out of the elements, 3) souls, 4) heavenly bodies, and 5) “supercoelestia incorporea.”⁴⁴ Each of these groups can then be classified according to the following ten categories: *genera generalissima*, *genera specialia*, *species generales*, *species specialissimae*, *res individuae*, as well as matter and form, difference, *propriates*, and accidents.⁴⁵ The natural philosophical interpretation of the fifty ways of wisdom is based on this (logically somewhat uneven) list.

Interpreting the number fifty symbolically reveals it to be the perfect example of the coincidence of the Kabbalah and Pythagoreanism that interests Reuchlin so much. His interpretation derives from Pico’s nine hundred *Conclusiones*.⁴⁶ The number 5 is in the middle between 1 and 9; there are four numbers above it and four below it. This position can be represented geometrically by a circle divided vertically down the middle. The number 5 is in the middle; the upper section is divided among the numbers 6–9; the lower among the numbers 1–4. Half circles can then be drawn with the number 5 always at the center, making the connections 9–5–1, 8–5–2, 7–5–3, and 6–5–4. If one then subtracts from the larger number the amount separating it from 5, and adds the result to the smaller number, the sum is always 5.⁴⁷ This theory aims to highlight the speculative, arithmological median position of the number 5, thereby also evoking the role of the pentagram in salvation history.

This establishes the special role of the number 5. For Reuchlin, the position of numbers in relation to divine infinity is key. His concept of infinity is more edifying than it is precise, but nonetheless theologically and philosophically succinct. He performs the following thought experiment: multiplying 5 by the Pythagorean number 10 gives 50, which corresponds to the fiftieth year, set aside in the Bible as the year of jubilee. Multiplying 5 by 2 and raising the result to the third power renders 1000. Continuing this process leads to infinity, “the realm of all eternities, which the Kabbalists call *En Sof* and which is divinity without

44 Ibid., 246.

45 Ibid., 246.

46 Pico, *Conclusiones* (Farmer 1998, 68).

47 Reuchlin, *De Arte Cabalistica* 246.

garment."⁴⁸ Reuchlin's theological conclusion is a variation on Psalms 104:2: "He wraps himself in light as with a garment." The order of numbers is not divine infinity, but merely God's garment, a symbol of divine infinity, appearing to us as the light of reason and of the rational spirits. "With the light of his garment he created the intelligible world of distinct and invisible spirits, which the Kabbalists call heaven."⁴⁹

Light, which is both intellectual illumination and grace,⁵⁰ is also the form with which God created the intelligible world.⁵¹ This idea is commensurate with the Florentine Neoplatonist notion that light contains all forms of creation and knowledge of these forms as well as the grace of salvation.⁵² Moses saw the Torah shining so brightly in this light that its radiance stayed with him and blinded his people, forcing him to conceal his face. "The Kabbalists" deduced from this that God does not fully show his glory, but only his predicates.⁵³ For Reuchlin this means that יהוה is concealed behind the garments.⁵⁴

The insight that we cannot ultimately have insight into the divine opens the first, most important gate of insight.⁵⁵ The following 49 gates are the steps in which God created the world according to Genesis 1: first the primordial world as the second gate, then the visible earth; the third gate is matter; the fourth the void. The remaining steps correspond to the six days of creation.⁵⁶ Following the logic of negative theology, the fiftieth gate of insight, the gate of the year of jubilee, is reserved for messianic insight: "The highest gate, the one creator of all, is known to no man, save the Messiah, for he is the light of God and the light of the nations; so he knows God and God is known by him."⁵⁷

7 Conclusion

Reuchlin's two main works, *De Verbo Mirifico* and *De Arte Cabalistica*, defined the framework and themes of the Christian Kabbalah for the next two hundred years. *De Arte Cabalistica* was written during the conflict over the Christian acceptance of

48 Ibid., 248: "quae est regnum omnium seculorum a Cabalistis Ensoph nominatum, et est deitas sine indumento."

49 Ibid., 248; cf. *Psalms* 104.2: "Cum vestimenti sui lumine creavit mundum intelligibilem spirituum separatorum et inuisibilium, quod Cabalistae uocant coelum."

50 Cf. Scheuermann-Peilicke 2000.

51 Moses Maimonides, *The Guide of the Perplexed* (Pines 1963, ch. 26).

52 Cf. Leinkauf 1999 and Scheuermann-Peilicke 2000.

53 Cf. Nachmanides on *Exodus* 33:18. Ramban (Nachmanides), *Commentary on the Torah* (Ber Chavel 1971–1976).

54 Reuchlin, *De Arte Cabalistica* 248: "Quo plane apparet deum iuxta ipsum esse suum tetragrammaton."

55 Here again we have the incomprehensibility of the first, following § 5 of the *Liber de causis*. Reuchlin finds all of this in Pico's *Conclusiones* (Farmer 1998, 462).

56 Cf. the Maimonides passage cited above.

57 Reuchlin, *De Arte Cabalistica* 252: "suprema porta unus creator omnium a nullo homine nisi a Messiah cognitus, cum ipse est lux dei et lux gentium, ideoque et cognoscit deum et deus cognoscitur per eum."

Jewish books with the aim of explaining the mysterious Christological meaning of Kabbalistic literature to Christians and of describing the most important methods and topoi of what Reuchlin understood to be the “Kabbalah.” His Christological interpretation of the divine name replaced the Jewish Kabbalah of names with a Christian one. His claim that the Pythagorean tradition was the purest form of the original Kabbalah in the Greek tradition contributed to the speculative and theological esteem enjoyed by Pythagoreanism. Reuchlin’s Trinitarian interpretation of the Sefirot Christianized the heart of the Jewish Kabbalah; most significantly, the question of the *En Sof* and of the absolute origin of the divine continued to play a role in theologico-philosophical speculation until Spinoza. It is thanks to Reuchlin’s adaptation of Jewish traditions into Christian theosophical and philosophical speculation that Kabbalistic techniques and Kabbalistic symbolism become acceptable in the Christian context. The framework Reuchlin created defined the Christian Kabbalah into the nineteenth century.

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Unfolding Pythagoras: Leibniz, Myth, and *Mathesis**

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Perhaps the most striking feature of Pythagoreanism is the sheer variety of individuals associated with the tradition.¹ One need only glance at Iamblichus' vast catalogue (*VP* 267) to be impressed: assembled here are doctors, musicians, astronomers, athletes, women, politicians, poets, philosophers of all stripes, and many non-philosophers. At the same time, the origin myth of Pythagoreanism tells of a single godlike leader, whose word is law, acting at the head of a community so unified as to take all things in common. Such a tradition is a Hydra: an impossibility, yet seemingly reinvigorated by every new swipe of the philologist's knife. There is a certain logic, then, to the early modern identification of Pythagoreanism with a *prisca sapientia* – a form of knowledge that is either lost or concealed, but that, supposedly, appears in corrupted forms in all the traditions of the world. To uncover the uncorrupted form of this *prisca sapientia* would be to uncover a key to all the sciences and the secret of humanity's relation to God. Insofar as Pythagoreanism is associated with the knowledge of such an all-powerful secret, the tradition is characterized as "esoteric."

While Leibniz identifies with the search for an esoteric philosophy, I shall argue that the concept of Pythagoreanism and of *prisca sapientia* in general undergoes a fundamental transformation in his work. For Leibniz, the tradition's variety is no longer the corrupt form of an original unity, but a positive multiplicity which is itself the sought-for key. The secret of Pythagoreanism is no longer to be arrived at by reducing its variations to one, but rather by multiplying them into infinity. Leibniz thus identifies with Pythagoreanism precisely because of the several "corruptions" the tradition has experienced. This deliberate assimilation of the tradition's content to its form (the subordination of the esoteric to the "exoteric") explains how it was possible for a self-consciously modern and rationalist philosopher to identify himself with a mythical figure from Graeco-Roman antiquity. Insofar as Leibniz' reinterpretation of Pythagoreanism is motivated by

* My thanks to Brooke Holmes for her invaluable advice on an early draft of this paper.

1 Abbreviations: GW = Gerhardt, C. I. 1860, *Briefwechsel zwischen Leibniz und Christian Wolff*, Halle; DS = Guhrer, G. E. 1838–1840, *Leibniz's Deutsche Schriften*, 2 vols., Berlin; GP = Gerhardt, C. I. 1875–1890, *Die Philosophischen Schriften von Gottfried Wilhelm Leibniz*, 7 vols., Berlin; C = Couturat, L. 1903, *Opusculs et Fragments Inédits de Leibniz*, Paris; A = *Deutsche Akademie der Wissenschaften* 1923–, *Gottfried Wilhelm Leibniz: Sämtliche Schriften und Briefe*, Reihe 1–8, Darmstadt / Leipzig / Berlin.

a return to original sources, it also provides a valuable perspective for thinking about the question, hotly debated by classicists in recent years, of the unity or otherwise of the tradition in antiquity. Leibniz offers particularly helpful insights into the vexed question of the nature of the transition from Philolaus to Plato.

Unfolding esotericism

Leibniz' understanding of Pythagoreanism was heavily influenced by the interpretation of his sometime teacher at the University of Jena, Erhard Weigel. In turn, Weigel drew upon the work of Johannes Scheffer ([1664] 1701), which is referred to by both Weigel and Leibniz as the authoritative philological reconstruction of ancient Pythagoreanism (A 2.ii 86). Scheffer's key contribution was the claim that the members of Pythagoras' innermost circle, whom he associated with the label of *mathematici* (literally "learners"), had distinguished themselves by supporting all their reasonings with infallible demonstrations. By contrast, a second circle, the *acusmatici* ("hearers"), were only entitled to hear the results of these reasonings. In the "Prodromus" to his *Universum Corpus Pansophicum* of 1672, Weigel expounds at length on his "great joy" on discovering Scheffer's description of this divide. He says that it anticipates the primary division in knowledge that he wishes to make in his encyclopedia: the division between *cognitio denominativa* and *cognitio aestimativa*, qualitative knowledge acquired by the senses and quantitative knowledge reposing on firm demonstration (1672, sig. B2r). Weigel's project is to reform Aristotelianism along the lines of Euclid, to submit all denominative to aestimative knowledge and thus to construct a *mathesis universalis*. Whereas Cartesian mathematics could be used to establish exact determinations of extension only ("a shadow taken for a body"), this would be a mathematics with which one could establish the precise nature of moral ideas or metaphysical substances. The discovery that the Pythagorean *mathematici* had achieved this, he says, gives him hope that his life's work might not be as hopeless as his critics believed.

Leibniz systematically excerpted the *Corpus Pansophicum*, giving special attention to the section on the Pythagoreans (A vi.4 1179). In the Weigelian mould there is a certain aspect of Leibniz' Pythagoreanism that consists in a prioritization of the esoteric over the exoteric. Leibniz, too, often dreamed of a *mathesis universalis* in which, from a small number of absolutely simple concepts, any and all truths would be demonstrated by logical combination: "if we had it, such as I conceive, we should be able to reason in metaphysics and morals in much the same way as in geometry and analysis" (GP vii 21). All of his work on particular logical and mathematical problems he tended to regard as only a contribution towards the eventual development of such a system. Insofar as Leibniz pursues this goal, he appears to identify directly with the Pythagorean *mathematici* as Weigel understood them (e. g. A vi.4 378). It was consequently held by Russell (1900) that what failed to adhere to the strictest standards of mathematical logic in Leibniz' system – Russell's prime example was the doctrine of human freedom – was obfuscatory, motivated by money or politics. More recently, Rutherford (1995, 233) delivered

essentially the same judgement with a different moral evaluation, viewing such failures as a sacrifice of philosophy proper to ethics. It is indeed noteworthy that on several occasions Leibniz suggests that he resorts to “popular arguments” only as a practical compromise, and would have preferred (time-permitting, GP vii 468) to remain in the esoteric mode.

Leibniz explicitly rejected Weigel, however. He regarded him as intelligent but hardly intelligible (A i.3 466). In turn, Weigel regarded Leibniz as too “exoteric” (A ii.3 7914). Weigel’s mistake was to associate his mathematical formalism directly with esoteric content, hastily assuming to be genuine metaphysical simples ideas which he had in fact failed to properly decompose. For example, he purported to rigorously prove the existence of God from the fact that the multiplication table – or “Pythagorean table” as it was known – derives first from one multiplied by one. Leibniz responded drily: “one would need a more exact proof to call it a demonstration” (GP vi 343). It in fact seems unlikely that Leibniz thought that a *mathesis universalis* dealing directly with simple substances would have been possible at all. Certainly by 1683 he remarks explicitly that the determination of absolutely simple concepts is impossible (A vi.4 530). But much earlier than that Leibniz held that, at the metaphysical level, the notions whose subjects actually exist have predicates of infinite complexity. Only God (a syncategorematic infinity) is capable of analysing such predicates in a way that is infallible. If *mathesis* was to be a *mathesis* of substances that actually existed, it would have to be, in some way, an obscure or “exoteric” expression of its object.

Thus Leibniz directs the concept of *mathesis universalis* away from the search for the definitions of simple substances themselves and towards the development of systems of symbolic logic that can operate independently of their hermeneutic content. The quest for *mathesis universalis* becomes the quest for what Leibniz calls a *characteristica universalis* (“universal characteristic”): the latter does not rely upon accurate metaphysical knowledge but is rather “a certain method sensible and crude [grossier]” by which one can hope to approach such knowledge in its absence (GP vii 22). Leibniz states that no reasoning is possible without characters: “all of our reasoning is nothing other than the connection and substitution of characters” (GP vii 31). All reasoning is thus, insofar as it is rational, an entirely artificial chain of substitutions. Although Weigel was right to criticize Cartesian mathematics for treating extension only and ignoring more general forms of reasoning, erecting a *mathesis universalis* did not simply mean substituting one esoteric content (substance) for another (extension). Rather, mathematics had to be detached from all esoteric content, whether mere extension or true substance.

Tinner (1977) argued that Leibniz’ rejection of Weigel extended to a rejection of Pythagoreanism in general. But, as we shall see, this is not the case. Leibniz believed that mathematical formalism was constitutively detached from the infinite complexity of true substances, but he also believed that this detachment was the very basis on which a *mathesis universalis* could proceed. One way of coming to grips with this paradox is through Leibniz’ doctrine of expression. Expression,

for Leibniz, is a purely formal relationship: "Something is said to express another thing when there are relations in it which correspond to relations in the thing expressed" (GP vii 263). A set of purely formal relations between symbols cannot express the content of another thing directly. But it can express the relation between the relations of a thing and its content: "even if characters are arbitrary, their use and connection has something which is not arbitrary, that is a certain proportion between characters and things and between the relations that different characters expressing the same things have to each other" (GP vii 192). In other words, a relation of expression between two symbols can itself constitute a formal element in a relation of expression to a third, and so on, in such a way that, although an infinite set of relationships could never be written down, there is contained in the definition of expression, by recursion, the expression of such an infinite set. The very absence of any final content is what propels the system of formal relations to infinity. One could say that symbols express things precisely because they express, through the restriction that they express only other symbols, their separation from things. Hence "no-one should fear that the contemplation of characters leads us away from things; rather, it will lead us to the interior [intima] of things" (A ii.1 623).

Unfolding exotericism

Leibniz' remarks about the dependence of *mathesis* on characters or expression are paralleled by his occasional remarks to the effect that *mathesis* itself must at times be laid aside in favour of "popular arguments." Leibniz sometimes refers to himself as an esoteric philosopher, sometimes as an exoteric philosopher – and sometimes as both (cf. GP v 42 and 242). Russell, as we remarked, saw obfuscation in such moments. But if the most rigorous and exact *mathesis* only functions as such to the extent that its ultimate content is obscure, then *mathesis* and "popular arguments" have a common ground. The distinction between two forms of esotericism – the obscure Weigelian approach to *mathesis* and a *mathesis* construed as constitutively exoteric – thus develops into a distinction between two forms of exotericism. On the one hand, there is *mathesis*, esoteric when compared to popular arguments, but exoteric in the manner that we have discussed. On the other hand, there are "popular arguments" which enjoy something of the quality of formal reasoning, but to a lesser extent than is possible within a system of symbolic logic. Leibniz described such an exotericism explicitly in his preface to Nizolius (1670). This form of exotericism makes use of demonstrations, with the limitation that the elements of the demonstrations are popularly acceptable hypotheses (*topoi*) rather than perfectly demonstrated truths:

Exoteric philosophy is that in which certain things are said without demonstration, but are confirmed with similarities and certain topical reasonings, or even demonstrative ones [my emphasis], but not unless the assumptions are topically proposed; they are illustrated with examples and

similitudes; such a way of speaking is indeed dogmatic or philosophical, but it is not acroamatic, that is, not most rigorous, not most exact (GP iv 146; cf. GP v 242).

Topical reasonings can themselves be of varying quality, so that there is pre-supposed a series of gradations from the most exact to the most obscure. Thus Leibniz himself not only makes use of “popular arguments” but even myths and enigmas – and even, at times, Weigelian numerology. Wöhrmann (1980) has spoken of this passage as establishing an “Exoterikprinzip” in Leibniz’ philosophy. He emphasizes that the *mathesis universalis* is supposed to have two sides: an *ars demonstrandi* (“art of demonstration”), on the one hand, and an *ars inveniendi* (“art of discovery”) on the other. If the *ars demonstrandi* encloses symbols within a hermetic circle of mathematical reasoning, manipulating them provisionally as if they were things, the *ars inveniendi* applies symbols creatively to what they do not perfectly represent. The transformation of the esoteric system through a variety of exoteric explanations and practical applications is thus not the corruption of knowledge, but the production of it. This multiplication and differentiation corresponds to the way in which God produces the individual, limited sensations and capacities of finite beings, so that the exoteric principle also expresses the need for combining, as Leibniz puts it at one point, *veritatis Ratio* with *Experientia* and *Utilitas* (A vi.4 579).

The necessity for a progressive expansion of *mathesis* away from mathematical rigour and towards analogy and example can be seen by contemplating some concrete examples of how Leibniz’ thought a *mathesis universalis* might be constructed. In some papers from the late 1670s, Leibniz proposed a universal language in which simple concepts would be denoted by prime numbers and combined by multiplication. “To speak in this language will be nothing other than to enunciate the numerical propositions of a continued Pythagorean table” (C 277). Leibniz introduces a discussion of this language with a reference to Pythagoras:

There is nothing which does not suffer number. So number is like a certain metaphysical figure and Arithmetic a certain Statics of the Universe, by which the grades of things are explored. Men were persuaded by Pythagoras that the greatest mysteries were hidden in numbers. And it is credible that Pythagoras, as he brought much else, also brought this opinion from the Orient to Greece. But when the true key of the *arcanum* was lost, the curious lapsed into futile superstitions: whence was born a certain vulgar Cabbala, far removed from the true one, and the multiplicitous stupidities of a certain falsely-named Magic (A vi.4 263).

Leibniz’ system is obviously impossible: the multiplication of numbers would quickly render the representations of more complex concepts impractically long. At a certain level of complexity a new form of encoding would have to be applied. This would render the terms manageable again, but conceal the manner in which

the original prime numbers had been combined, whose expression was the motivation of the original system. If Leibniz means to propose this system as the lost Pythagorean “key” then he has fallen into the same trap as Weigel. In fact, however, other systems proposed by Leibniz make it clear that this remarkably esoteric system is merely one relatively exoteric example. For example, Leibniz had a mystical interpretation of binary arithmetic as a Pythagorean enigma (*symbolon*, that is) encoding the creation of all from being and nothingness (C 430–431; DS ii 410–413). The binary is the simplest of all possible forms of inscription. Compared to it, the present system involving prime numbers is already operating at a level in which its simplest components have been obscured. One could imagine such a system written in binary, but it would be even more unwieldy than Leibniz’ actual proposal.

Ross (1983) saw Leibniz’ celebration of the binary as a straightforward identification with Pythagorean esotericism. Leibniz had in fact probably been influenced by Weigel on this point, who had interpreted the *Tetractys* as concealing a form of quaternary arithmetic (A iii.8 320). I would emphasize, however, that Leibniz is willing to view systems at varying levels of abstraction as all being, in some way, Pythagorean. The progression from binary, to the prime number system, to the ordinary mathematics of extension, in which the relation to simple (non-extended) substance is definitively obscured, means that no one system can be interpreted as a definitive presentation of the “key.” From the perspective of the prime number model, it is the mystical interpretation of the binary, all too close to Cabbalistic numerology, which is obscure. Similarly, from the perspective of applied mathematics, it is the prime number model which is obscure. The same continuity and striation of obscurity extends into those forms of rationality that are not mathematical, but based on analogy and example. Hence Leibniz’ claim that “philosophers and mathematicians who scorn the exoteric or civil disciplines as uncertain seem very stupid” (A vi.4 465) The *mathesis universalis* is not constituted by any particular key, but by a series of examples of how the *mathesis universalis* might be constructed. If there is an *arcanum*, its content can only be expressed by the relations between the examples themselves.

The importance of the Pythagorean tradition thus lay in the very fact that through its literally “multiplicitous” (*multiplikes*) corruptions it presented a series of expressions of greatly varying obscurity – mystical *symbola*, numerological descriptions of physical entities (as in the famous table of opposites) and conventional mathematical expressions (e. g. Pythagoras’ theorem). Most importantly, it placed these on a continuum. The tradition itself could thus be adopted as a symbol of how the esoteric truth would depend on a series of exoteric expressions.

Leibniz’ willingness to blur the lines between *mathesis* and exoteric philosophy may also owe something to an ambiguity in Scheffer about just who the Pythagorean esoterics were. This ambiguity was in turn a result of Scheffer’s attempt to grapple with the notorious inconsistency between Iamblichus’ accounts of the *acusmatici* and *mathematici*, thanks to which debate still rages over the identity of

the mathematical Pythagoreans. Scheffer had identified several grades through which Pythagoreanism was disseminated. He first made a distinction between the exoteric (non-Pythagoreans) and the esoteric (disciples); then the esoteric was divided into the mathematical (*mathematici*) and the “acroamatic” (*acusmatici*). The *acusmatici* were not party to full demonstrations but were nonetheless instructed “esoterically,” with the expectation that they might someday progress to the inner circle (1701, 80–82). Leibniz would therefore have seen from Scheffer (as well as Weigel, who noted the ambiguity) that to a Pythagorean “esoteric” could mean both mathematical and acusmatical. To complicate matters further, Scheffer’s own language fluctuates. Sometimes he uses “esoteric” to mean only the *mathematici*; sometimes “acroamatic” to mean *mathematici* and *acusmatici* taken together (that is, “esoteric”). Whatever exactly Leibniz made of this, it is clear that when Leibniz identifies with Pythagoreanism he does not identify purely with a secret esoteric philosophy, but also with a system of communication, gradated, to be sure, yet rational through and through precisely by virtue of this gradation.

Leibniz associated many philosophical ideas with Pythagoras besides that of *mathesis*. Foremost among these were the existence of incorporeal substance and the concept of the soul as a harmony (to be considered in the next section), the existence of a “central fire” (i. e. the Copernican cosmology), and the concept of “number atomism,” which Leibniz developed into the Monadology. According to the interpretation of Leibniz’ Pythagoreanism that I am advancing here, however, Leibniz does not look to the tradition for determinate philosophical content. Rather, he looks for ways in which that content has been or can be transformed. Although one might think of the system of Leibniz’ Monadology, for example, as a recreation of the Pythagorean number atomism (Neumann 2009), it is above all a flowering of the esoteric-exoteric relation taken as a structuring principle of the emanation of divine being into nature. Leibniz’ monads are absolutely singular and exclusively esoteric beings (with “no windows”), distinguished by nothing except the degree of distinctness with which their internal writing “expresses” that of other monads (GP vi 598, 616). The content of this idea of expression – always the expression of an expression – is susceptible to as many transformations as there are monads. There is no *Monas Monadum* (“Monad of Monads”) in Leibniz.

Idealism and materialism

Much ink has been spilled over the relationship between the Pythagoreanism described by Aristotle in the *Metaphysics*, which closely resembles what we find in the fragments of Philolaus, and the Pythagoreanism of Plato and the Academy. Burkert drew a sharp (if curiously circular) distinction between these two traditions: “what differentiates Plato from the Pythagoreans is ‘separation’ (χωρισμός)” (Burkert 1972, 31). In other words, so the argument goes, Philolaus represents a typically Presocratic materialism, but the concept of the Idea (“separated” from material) comes only with Plato. The trouble is, Aristotle interprets Philolaus’ doctrine in different places in contradictory ways, either as implying that mate-

rial objects somehow directly are numbers (*Metaph.* 1083b, *Metaph.* 1090a), or that they participate in numbers in a Platonic fashion (*Metaph.* 987b). Plato himself sometimes associated Pythagoreans with Parmenidean idealism and sometimes with Heraclitean materialism (Horky 164–166, 198–199). Laying aside the problem of the diversity of Pythagoreans at this time, one can see how this ambivalence could have arisen simply from tensions in Philolaus' own doctrine. Philolaus states that “nature itself” (αὐτὰ μὲν ἅ φύσις) cannot be known by humans, yet it is known that it consists in harmony (F6): “all things that are known have number” (F4) and each “thing itself” (ἕκαστον αὐτὸ) gives signs of which numbers it is to be known by (F5). The difficulty here is understanding precisely what kind of gap separates “the thing itself,” which remains inaccessible to human knowledge, from the numbers by which it is known.

This difficulty is similar to that which lurks in Leibniz' insistence that *mathe-sis*, while remaining entirely restricted to symbolic expression, would lead to the “interior” of things. There is a suggestion that “nature itself” can somehow be absolutely known through numbers – it consists in harmony, after all. Yet it is only divinely knowable. Sometime in the fifth century, this tension imprinted a permanent mark on the shape of the tradition: on the one hand, there emerged Platonic Pythagoreanism, in which numbers were separated from matter as Ideas – the true objects of knowledge. On the other hand, there emerged the Pythagoreanism of practical empiricists like Archytas, for whom numbers became the material expression of an otherwise inaccessible “nature itself.” Hunched over his strings, searching for harmonies in material objects, Archytas appeared ridiculous to the Platonic philosopher (*Resp.* VII 530d; cf. *Plut. Marc.* 14.5–6). Conversely, to a man such as Aristotle, it was the Platonists' turn away from the physical world that was absurd. Leibniz saw that both tendencies could be regarded as springing from the same root (like Netz 2004). But this did not mean the distinction was to be abandoned. In much the same way as Weigelian *symbola* could be incorporated as one grade of exoteric expression, to be contrasted with the more useful yet less comprehensive expressions of Cartesian algebra, for example, idealist and materialist Pythagoreanism could be reframed as complementary. Just as Leibniz would develop a *mathesis universalis* by reframing the esoteric as a grade of the exoteric, he would develop through this duality what could be characterized as an idealism without Ideas.

Leibniz states many times that Pythagoras discovered incorporeal being, but presents this discovery in two different ways. On the one hand, the discovery led to philosophical obscurity and the wrongful neglect of the study of nature. The notion of “ideas subsisting outside of matter” (GP vii 148) was a mistake. Leibniz criticises Plato's attack on Archytas for “applying geometry to machines,” in this regard, and blames Plato's attitude on his Pythagoreanism: “for Pythagoras and Socrates were convinced of the immortality of the soul and innate incorruptible ideas” (A vii.6 495). Leibniz insisted, against Plato and with Archytas, that it was precisely through its expression in matter and machines – exoterically, in other

words – that incorporeal being could be known. *Mathesis*, correspondingly, could be thought of as a material process: “the Arithmetical Machine counts, whatever Pythagoras believed... *Mundus vult* (nay must) *decipi*.” (A iv.1 569).² On the other hand, Leibniz often identifies himself as a Platonist and praises the *Phaedo*, particularly the passage in which Socrates ridicules Anaxagoras for explaining nature in terms of efficient rather than final causes (97c–99c) and which he believes “comes, in part, from Pythagoras” (GP vii 334; cf. A 2.i 767; A vi.4 1562). Correspondingly, he sometimes regards *mathesis* as founded upon the Pythagorean discovery of incorporeal being. Pythagoras “just about [*propemodum*] founded *Mathesis* and the Science of incorporeals when he discovered that famous dogma worthy of a hecatomb, that all souls are indestructible” (GP vii 497).

Leibniz’ particular interest in the *Phaedo* is significant, for it is here that we find one of Plato’s clearest statements of what separates him from the Pythagoreans along with perhaps the first mention of absolutely immaterial Ideas. Yet the passage upon which Leibniz dwells – on final causes – is the very passage which renders problematic the whole enterprise of “separation” (be it separation from matter or Philolaus). Here, Socrates himself explains that he only resorted to Ideas after he found himself unable to comprehend the Best (99d–100a). Through this passage, Plato frames the ensuing demonstration of the immortality of the soul in terms of Ideas as one more exoteric expression of what only the final cause – unknowable in itself – would infallibly determine. As if to heed Socrates’ warning about “misology” (89b–91c), Leibniz does not give up on the concept of incorporeal substance – he remains a Platonist. But it does not follow for him that one must reject the Pythagoreans. Unlike Socrates, Leibniz has a clear idea of the Best. It is that which has in it the maximum of “affirmative intelligibility” or “things worth marking” (GW 161). For Leibniz it is thus consistent with a method of reasoning that departs from final causes that the foundation of demonstration be not a certain set of esoteric truths or Ideas, but rather the perception of an order between exoteric relations or purely material entities.

The most obvious trace of Leibniz’ continuing adherence to the Pythagoreanism against which Plato defines himself is his resuscitation of the Philolaic doctrine of the soul as a harmony, which Plato had dismissed for its lack of, literally, *ἀκουσία* with the existence of innate ideas (*Phaedo* 97c). It is noteworthy that this doctrine seems to have presented Aristotle with a problem very similar to that which he encountered in assessing the nature of Pythagorean numbers, namely of whether or not the harmony can be reduced to the matter in which it subsists. Is the soul the dust motes themselves or the principle of their movement (*De An.* 404a)? Recent scholarship tends to replicate his inconsistency here. In the case of the number doctrine, scholars are eager to criticize Aristotle’s claim that Pythagorean number was material; yet the view that the harmony of the soul was purely material goes more or less unquestioned (compare, for example, Huffman

2 “The world wants to be deceived” – i. e. divinity must be obscured by symbols.

1988 with Huffman 2009). In regard to the latter, we have simply accepted Plato's analysis of the doctrine. It may be questioned, however, whether it is right to consider a harmony in "nature itself" which is, recall, only divinely knowable, as purely material. For Leibniz, it is the very duality of the notion of harmony – capable of appearing immaterial from an Aristotelian perspective and material from a Platonic perspective – that makes it useful. Again, by unfolding Pythagoreanism itself into its two contradictory forms, Leibniz introduced a dissonance in Pythagorean harmony through which it came to express (harmonize with) the *concordia discors* between materialism and idealism, the Presocratics and Plato.

Navigating between the Scylla of Cartesian dualism and the Charybdis of Spinozan monism, Leibniz holds that the soul is both purely immaterial and absolutely inextricable from a particular body, which remains its own through the most violent flux, including birth and death. There is no transfer or influence between soul and body, but a communication through a "pre-established harmony." The soul may indeed be thought of as a harmony in matter, insofar as the ordered activity of the body is what expresses it. But it is not reducible to this harmony, because the order that the body expresses over any particular place, time, or at any particular level of magnification, is only a partial or obscure expression of the infinite and perfect order implicated in the soul and progressively explicated in the body. Once again, therefore, this doctrine requires Leibniz to justify an analogy between the finite and the infinite – the finite harmony of the body and the infinite harmony of the soul. This justification arrives in the unfolding of the notion of harmony into harmonies of varying clarity and obscurity. From the material harmonies that we perceive in our body we analogically infer the existence of a more perfect harmony. In turn, we infer the existence of harmony that must relate these harmonies, and so on, until we arrive at a harmony that is infinitely complex, and therefore immaterial. Specifically, Leibniz identifies at least three "levels" of harmony – between body and soul, efficient causes and final causes in nature, and between nature itself and Grace.³

Occasionally we find the distinction between the view of the soul as an expression of matter and as separate from it expressed as a difference between rational metaphysics and revealed theology or mysticism: only in the divine perspective can the soul be considered as truly distinct from the body.⁴ The double scientific-religious aspect of Pythagorean metempsychosis serves a similar purpose. For modern scholarship, metempsychosis, which Burkert regards as "groping" towards Parmenides (1972, 136), presents further problems for the view of the soul as material, which are only solved by dividing metempsychosis into religious and scientific variants. Leibniz enacts a similar division, but once more what is

3 Haase (1962) suggested Boethius' *musica humana* as the immediate source for Leibniz' notion of pre-established harmony; cf. the reference to the *Consolatio* as Pythagorean at GP vii 545.

4 Leibniz distinguishes between human souls, separated from the body at death by God's grace, and animal souls, confined to the revolutions of matter, but equivocates as to whether human souls continue to possess a subtle body after death (Coudert 1995, 198 and GP ii 100).

important is not the actual content of the doctrine, so much as the way in which its religious (or in Leibniz' case, corrupt, exoteric) and scientific (esoteric) forms relate. The esoteric doctrine is called by Leibniz metamorphosis, metaschematism, metasomatosis, or transformation: "Animate beings do not come into being or die: but are only transformed" (A vi.4 1649). Leibniz refers to this doctrine as a "grand secret" or an "*arcanum*" because it can only be inferred from the regularity of corporeal transformations that we do see, not demonstrated conclusively (A i.21 722; GP vii 199). That is why, almost whenever he introduces the doctrine, he introduces it by the negation of metempsychosis. When introducing metamorphosis he simultaneously states that it is not metempsychosis.⁵

Now, metempsychosis is definitely a mistake according to Leibniz, since it implies a moment of disharmony, of soul without body. But it has the virtue of expressing directly the separability of the soul from body that is at best confusedly implied by the corporeal traces of its enfolded order. The esoteric discovery of immateriality is thus expressed by its exoteric transformation: *metamorphosis pro metempsychosi* becomes a single idea (GP vii 199). Leibniz explains that "The Pythagoreans enveloped the truth in their metempsychoses... the vulgar would understand nothing without having their minds prepared" (GP i 392; cf. GP iv 299). But envelopment is precisely how Leibniz describes the containment of the soul in the body: "rigorously speaking there is neither birth nor death, but only developments and envelopments." (GP iv 474). The esoteric-exoteric distinction thus not only expresses the soul-body relation through a bare structural difference, but even in the development of that difference into the metaphor of the development of the *plis et replis infinis* of arcane being (A i.21 722).

The Pythagorean *Pharmakon*

Leibniz sometimes speaks as if he associates his doctrines with Pythagoreanism merely in order to add authority to his claims. "It is of the greatest utility to show that the doctrine of the immortality of the souls is most ancient" (A i, *Transkriptionen* 1712, 242). "Even the *Philosophia Mystica*, as that of Plato and Pythagoras, has its uses" (GP vii 497; cf. A vi.3 573). Such remarks might seem irreconcilable with the assertion (following in GP vii 497) that Pythagoras is "better than the other ancient philosophers." We can understand them once we realize that the rationality of the *ipse dixit* lies precisely in the way that it interrupts the hermeticism of mathematical reasoning, in which symbols are treated as things, and reinstates them in their distance from things as symbols, that is, as expressions. Pythagoreanism "has its uses" not despite, but because of, its envelopment of obscurity. It becomes the allegory of allegories, the myth of myths, deployable whenever the function of the symbol (that is, of obscurity) requires clarification.

5 For example, GP ii 100, 124; GP iii 635; GP v 64, 216; GP vi, 601, 619.

In 1675, Leibniz sketched out an essay designed to persuade the King of France to sponsor the creation of an *Encyclopedia Universalis*. The bid was to have begun thus:

The Republic of Letters is a colony in the other world that a certain Greek adventurer, named Pythagoras, led there from ours. It is he who first began to cultivate a part of the country and plant there a certain drug shown to him by Mercury, which we call glory... [but now] the poverty of the inhabitants makes them sell this product at too low a price, which means that the storehouses in Europe are full and it has deteriorated from its first reputation. And yet there is nothing so noble as the juice that one draws from this drug, provided one knows the preparation. It is the true nectar of the gods and the liquor of immortality (A iv.1 571).

Leibniz' tale is modeled upon the famous moment in the *Odyssey* in which Hermes shows Odysseus Moly (10.303–306). We are dealing here with the first appearance of the word *phusis* in Greek literature. Hermes shows Moly to Odysseus not as mortals know it, from the flower, but as the gods do, from the root. Yet the *phusis* of the herb does not lie in the root or the flower: it lies in the manner in which the one has unfolded from the other. In Leibniz' tale, the value of the herb derives from its circulation. Immortality is produced by the multiplication and trade of the fruits of the Republic of Letters. And yet, at the same time, surplus results in decay. Building on the economic metaphor we might compare the way in which Leibniz once drew an analogy between logical demonstrations of varying rigour to coins of varying denomination (GP vii 520). True discrimination is not counting everything out in one-penny pieces, but knowing when to count and when to guess. A fluent system of currency, like the *mathesis* that would have ordered the *Encyclopedia*, requires a stratification and organization of obscurity and distinctness, generality and precision. Pythagoras' drug is traded most effectively at varying levels of purity. Thus, there is not only a Pythagoreanism of Leibniz' myths, but also a myth of his Pythagoreanism. As it turned out, however, this particular myth was never actually communicated.

Couturat wrote of Leibniz that he "dreamed all his life of a grand work which was to be his singular work, and of which he left only some plans, some rough drafts and some fragments; so that one can say that the true Leibniz not only did not publish, but never even wrote (As a poet said, the most beautiful thoughts are those we are not able to express)." (O'Briant 1979, 204–205). Just as modern scholarship has dismissed the old notion that the mathematical ἀόρητον ("irrational/unsayable") caused a crisis among the early Pythagoreans, we have seen that the unsayability of an esoteric doctrine in itself – esoterically – does not mean that it cannot be expressed exoterically; nor is it impervious to rationality, since the way in which the esoteric relates to the exoteric can be analogically recapitulated among purely exoteric relations. In general, finite reasonings resemble the infinite analysis of God only by an iterative act of self-reference in which the

difference between the infinite and the finite is repeatedly reinvested within the finite. That, incidentally, is why Leibniz claims that the infinitesimal calculus is what finally allowed him to *evolvere* ("unfold") the *arcanum* of the harmony of necessity and contingency, regarded by Russell as irrational (C 18). It expressed the divine-human ratio particularly clearly. The Pythagorean tradition not only offered philosophical concepts to express this unfolding, it evolved them through its own transformations as a tradition. Similarly, Leibniz' Pythagoreanism is expressed in the staggering multiplication of models and approaches, drafts and fragments, that constitute his *Nachlass* – in the way in which this multiplicity unfolds – as well as in each and every finite contribution, though with varying degrees of clarity and obscurity.

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VII Refractions

The Pythagorean Doctrine in the Caucasus

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“Pythagoras was a great philosopher”
Sulkhan-Saba Orbeliani, *Georgian Dictionary*

1 Introduction

In the context of intercultural philosophy the research and analysis of transnational philosophical discourses is extremely important. In this regard, it is of great value to outline the contours of “Caucasian Philosophy,” the methodological foundations and prerequisites of which I have already presented in my recent work, *Philosophy at the Crossroad of Epochs and Cultures. Intercultural and Interdisciplinary Researches*.¹ This work is an attempt to revitalize old and new philosophical concepts in the light of intercultural and interdisciplinary studies. This, in turn, leads to an understanding of intercultural philosophy that connects systematic and historical aspects in a specific form. Here I speak of “Caucasian philosophy” and, above all, refer to those thinkers of this region who initiated the productive philosophical relationship between Georgia and Armenia. The foundation for the study of a hitherto unexplored field of history of philosophy has been laid in this approach, and in addition in my work I indicate the major directions of future philosophical discourses between the leading representatives of these two nations of ancient cultural traditions.²

In the context of Caucasian philosophy, the Pythagorean doctrine of philosophy and philosophizing is of great significance. In the Caucasus the role, mission, and purpose of philosophizing was largely determined by the Pythagorean concept of philosophy.³

1 See Iremadze 2013. For the importance of Caucasian philosophy, see also Tavadze 2013; Zakaradze 2012, 417–430.

2 Udo Reinhold Jeck in his most important works *Platonica Orientalia* (2004) and *Erläuterungen zur georgischen Philosophie* (2010) speaks of the need for a new definition of the place and role of Western philosophy in the context of global philosophical thought. He specifically underlines the importance of reconsidering the Western European understanding of philosophy. Eurocentrism is deeply rooted and widespread in the history of philosophy, which brings to the fore the dominant European cultures, and essentially hampers research on less known philosophical traditions (including many traditions of European philosophy but especially non-European philosophy). See Jeck 2012, 9–10.

3 Friedrich Nietzsche in his Early Notebooks (written in 1872/1873) had connected the terms “mystics,” “philosophy,” and “religion” to Pythagoras. In his view, the great Greek thinker

First and foremost, I will discuss the two most important representatives of Caucasian philosophy and their interpretation of Pythagorean doctrine. Thereafter, I will try to show how the Pythagorean reception developed in the Caucasus. Therefore, I will take the following steps: I will begin in chronological order and discuss the reception of Pythagorean doctrine by the great Armenian thinker David Anaht. My next step refers to the great medieval Georgian philosopher Ioane Petritsi and his interpretation of Pythagorean doctrine. The last step is related to the analysis of a variety of interpretations of Pythagorean doctrine in early modern Georgian (Caucasian) philosophy. Finally, it can be concluded that Pythagorean doctrine has played an important role in Caucasian philosophy.

2 David Anaht and Pythagoras

The first, remarkable notices about Pythagorean doctrine in the context of Caucasian philosophy are given in the works of the Armenian thinker David Anaht (David the Invincible, sixth century AD).⁴ He belonged to the Alexandrian school of Neoplatonism.⁵ This original thinker of the school of Ammonius was a disciple of Olympiodorus the Younger and was among the important commentators on Aristotle in late antiquity. Biographical information about David is scarce. Nevertheless, some commentators on his works such as Arakel Sjunetsi (1350–1422) provide important information about his life and work. Relying on old sources, Sjunetsi commented upon David's work *Definitions of Philosophy* (*Prolegomena philosophiae*), in the fourteenth century.⁶ Here Sjunetsi tells us that David had a lot of trouble because Armenians were persecuting him, so he had to move to Georgia, where he died.⁷ Arevshatian, who has translated and published David's works in Russian, explains this report by Sjunetsi as probably meaning that David had a conflict with the Armenian clerics. Nevertheless, in Arevshatian's view, before emigrating David greatly influenced Armenian thought and his works were widely spread and extremely influential in the Caucasus.⁸ Be that as it may, one thing is clear: David was a Caucasian philosopher in the best sense of the word. In my view, his writings, together with the important philosophical works of Ioane Petritsi, form the foundation of Caucasian philosophy.

of Samos played an important role in the development of these fields. The interdisciplinary character of his thought itself gave his model of philosophizing a wide resonance well beyond Greece. Pythagoras gained significant recognition in the context of different cultures and nations and gave important impulses for the establishment of intercultural thought. From this perspective his life and creative work is valuable. Nietzsche called Pythagoreans "sectarians." See Nietzsche 1996, 30–31.

4 See Anaht 1975, 29–100.

5 For a more comprehensive picture of the philosophy of David, see Anaht 1983; Benakis 1983, 558–570; Busse 1892; Khostikian 1907; Mahé 1990, 189–207; Sanjian 1986; Westerink 1967; Wildberg 1990, 33–51.

6 The analysis of David's work "Introduction to Philosophy," written by Arakel Sjunetsi was printed in Old Armenian in Madras in 1797. See Arevshatian 1975, 8.

7 Ibid.

8 Ibid.

In his writings David frequently refers to Ammonius Hermiae (440–517) and is greatly indebted to him. In his *Definitions of Philosophy*, David speaks of six famous definitions of philosophy, the source of which can be found in antiquity and, in particular, in the doctrines of Pythagoras and the Pythagoreans. Analysis of David's text shows that for him the major sources of Pythagorean doctrine are the works of Alexandrian philosophers – Ammonius Hermiae and one of the most famous Pythagoreans, Nicomachus of Gerasa (second century AD).

Ammonius in the preface to his commentary on Porphyry's *Isagoge* discusses six famous definitions of philosophy and indicates their sources (Pythagoras, Plato, Aristotle). Ammonius considered the purpose of these definitions to be the clarification of the specific nature of philosophy and the object of its study: philosophy, in contrast to other sciences, lays claim to universal and necessary knowledge about beings as such. This view was of great importance for the development of philosophy. These six definitions of philosophy, found in Ammonius, had a great influence on the later thinkers of Alexandrian Neoplatonism, and especially on John Philoponus, Elias, and David Anaht. These definitions are as follows:

Philosophy is the knowledge of existence as such.
 Philosophy is knowledge of divine and human things.
 Philosophy is contemplation of death.
 Philosophy is becoming similar to God as far as it is humanly possible.
 Philosophy is the art of arts and the sciences.
 Philosophy is a love of wisdom.

David included these definitions of philosophy in his work *Definitions of Philosophy*, but at the same time he attempted to explain them in a more detailed and precise way. Depending on the account of Nicomachus of Gerasa, David discusses the three most important of the definitions of philosophy, which he ascribes to Pythagoras:

Philosophy is the knowledge of existence as such.
 Philosophy is knowledge of divine and human things.
 Philosophy is a love of wisdom.

In *Definitions of Philosophy*, above all, David is trying to overcome the agnosticism and skepticism of Pyrrho. His declared goal is to reject Pyrrho and his skeptical philosophy, which he calls "false wisdom."⁹ Against the assertion of Pyrrho and his followers that, "there is no existence, and even if there were, its cognition would have been impossible," David asserts the existence of beings. His overall purpose is to prove that being as such is the object of philosophy, by means of which adequate cognition of it (i. e. of being) is possible.

9 See Anaht 1975, 31.

Of these three definitions of philosophy, the roots of which, according to David, can be found in Pythagoras' doctrine, the first definition deserves special attention. The assertion that philosophy is the knowledge of existence as such, in David's opinion does not refer to the Pythagorean doctrine of number. At this point David offers a modified version of the nature of philosophy: it is a science which cognizes beings according to their nature. However, the nature of beings, that is their essence, is not a number. Beings are understood in a qualitative and not in a quantitative dimension.¹⁰ However, it should also be noted that Pythagoras ascribed to numbers not only quantitative but also qualitative characteristics.

In his work David speaks of the superiority of the number four. The number four possesses unlimited possibilities and mystical character. From it the numbers seven and ten are derived. In Pythagoras' doctrine the equivalent of seven is wisdom and the equivalent of ten is perfection. Four also manifests itself in the form of the four classical elements of the creation such as earth, water, fire, and air. Thus, the number four possesses universal character, because all beings are related to the principles of the synthesis and unification of these four major elements. All beings are thus related to the number four too.

In this context, we should not pass over another important aspect of Pythagorean doctrine that was considered by David, namely that Pythagoras did not write down his doctrine. David argued that this was so because this great Greek philosopher desired to transmit his knowledge to animated beings and not to inanimate objects. This means that his thought was dedicated to his disciples and not to inanimate books. For Pythagoras, the following considerations were obvious: why do we need books if they are not able to disperse doubt from this world and answer the most important questions? Only the faithful disciples who hear the teachings of their teacher are able to understand, extend, and preserve this teaching. That is why Pythagoras did not leave us written works;¹¹ he perfectly understood that philosophizing can be incarnated in conversation and not in writing.

Hence, based on Nicomachus of Gerasa, David raises the problem of writing down philosophy. According to the Armenian philosopher, Pythagoras was supporting the point that writing is not able to solve important questions and problems of the world and human existence. Only the spoken word can incarnate real philosophical communication. Thus, Pythagoras differentiates speaking and writing from each other and does not hide his distrust of writing. Perhaps he had a special reason for that: indeed, what gross negligence has taken place when writing has been given the advantage? In writing, opinions are shared in such a way that the partner in the dialogue is not able to control knowledge directly. Plato was of the same opinion about written philosophy. Thus Pythagoras can be considered as Plato's predecessor in this regard.¹²

¹⁰ Ibid., 59.

¹¹ Ibid., 57.

¹² See A. Patzer 2006, 28–38.

3 Ioane Petritsi on Pythagoras and Pythagoreans

Ioane Petritsi – the most important medieval Georgian philosopher – intensively studied Neoplatonic philosophy.¹³ He translated into Georgian the work of Nemesisius, *On Human Nature*, which was very famous in that period.¹⁴ But especially important is his Georgian translation of Proclus' *Elements of Theology*, which he interpreted step by step.¹⁵ Petritsi's commentary on the *Elements of Theology*¹⁶ is an important part of the reception of this work, in that the Georgian philosopher discusses the work immanently, that is based on Proclus' own philosophy.¹⁷ Petritsi should therefore be a subject of special interest in study and discussion of Proclus' philosophy and especially in study of the medieval commentaries on Proclus, but this has not been the case in most publications concerning the *Elements of Theology*. In these publications Petritsi's translation and commentary on Proclus' work is considered superficially, or unfairly criticized.¹⁸ This gap in researching Proclus' philosophical work can be filled only if the Georgian translation and commentary on the *Elements of Theology* is discussed and evaluated in close connection with Proclus' Byzantine and Latin interpreters.¹⁹

Petritsi's commentary on the *Elements of Theology* represents him as a great expert and supporter of Greek philosophy. Petritsi used his exemplary knowledge in order to reconstruct the world of the great thinkers of antiquity and introduced it to his countrymen. He managed this task so successfully that even the great Georgian thinkers of the early modern period relied on his achievements and considered their philosophical paradigms in close connection with the epistemology of Petritsi. Here, first of all, I would like to recall Anton Bagrationi (1720–1788), who in his major philosophical work *Spekali* (1752) presented the theory of cognition based on Petritsi's works.

Pythagoras' doctrine had a great influence on Petritsi's creative work. In the commentary on the *Elements of Theology* Petritsi speaks of Pythagoras and Pythagoreans. For him, Pythagoras and the Pythagoreans belong to the line of

13 About Ioane Petritsi's philosophy see Iremadze 2004, 13–27; 53–58; 161–241; Tewsadse 2002, 131–154.

14 See Nemesisius of Emesa, 1914.

15 Like Berthold of Moosburg, who wrote an extensive commentary on this work of Proclus, Petritsi commented extensively on all chapters of the *Elements of Theology*. See Mojsisch 2002, 177.

16 See Ioane Petritsi 1937; Ioane Petritsi 1940; Ioane Petritsi 1999.

17 See Iremadze 2007, 75–78.

18 See Proclus 1963, xli–xlii; 343.

19 Here, above all, we should recall the commentaries of Nicholas of Methone and Berthold of Moosburg on this work of Proclus. Each of these two commentators on Proclus had commented and researched Proclus' *Elements of Theology* from different perspectives and for different purposes. See Mojsisch 2002, 175–184; Podskalsky 1976, 509–523; Zakaradze 2011, 125–132. In addition, in this context we should consider and mention the Byzantine philosophers of the eleventh to twelfth centuries (Michael Psellus and John Italus), and the medieval Latin thinker Henry Bate of Mechelen (Heinrich Bate von Mechelen). See Steel 1997, 120–133.

ancient theologians who tell the supreme truth. It should be noted that Petritsi names Parmenides and Zeno as followers of Pythagoras. Thus it is evident that the Georgian philosopher sympathizes with these thinkers; this is also revealed in Petritsi's search for "sacred theology," which, as a Christian philosophy, should have been a teaching about divine and heavenly beings. Among ancient Greek thinkers Petritsi singled out Pythagoras and his disciples, for these philosophers by means of their abstract thought substantially fostered the creation of "sacred theology."

At this point the question of Parmenides and Zeno's Pythagoreanism should be considered. Petritsi's sources, in this regard, may be Iamblichus, Diogenes Laertius, Photius, and Proclus himself. These thinkers considered Parmenides and Zeno (because of their thinking style) to be followers of Pythagoras. It is very likely that here Petritsi is relying on Iamblichus' *Life of Pythagoras*, but we can also assume that he is guided by Proclus, who in his *Commentary on Parmenides* considers Parmenides and Zeno to be Pythagoreans.²⁰

In Petritsi's commentary on the *Elements of Theology* there is one section that requires special attention. At one point Petritsi uses Pythagorean motifs more intensively than is done in his original source, that is Proclus' text. In his commentary Petritsi incorporates Pythagorean doctrine and regularly uses it in his attempts to establish philosophy as a primary science. Moreover, Petritsi is trying to connect Pythagorean doctrine about numbers with Proclus' mathematical-arithmetical theorems. Certain epistemological positions should be taken into consideration as the basis for these attempts.

Philosophizing requires general notions and definitions. According to Petritsi, the formation of general notions has its basis in the first principle of universe and in particular in *one*. The *one*, in which everything participates, determines the origin of genera. These genera have their foundation in the *one* and they derive their essence from it. This supposition becomes clearly visible through the example of the numbers. Petritsi attempts to explain the development of each singularity by a speculative theory of numbers. The origin of the series of numbers – the *one* – determines all members of this series. The origins of natural and musical harmony lie in numbers, which, in turn, are dependent on the *one* as a number.²¹

In this context Petritsi recalls Parmenides' conversation with Socrates about numbers. It is certain that here he relies on Plato's dialogue *Parmenides*.²² In this way Petritsi justifies his methodological approach and, in particular, he intends to define the emanation of beings from the *one* by a speculation about numbers that depends on Parmenides. The latter considers it important to explain major philosophical problems by speculation of numbers. Here the obvious influence of Pythagorean doctrine is revealed. In particular, Petritsi discusses examples from music and associates them with rich materials from Greek mythology. He

²⁰ See Proclus 2010, 66.

²¹ See Ioane Petritsi 1937, 19.

needs this in order to explain and define the beings originating from the *one*. The existence of these beings is determined only by the *one*.²²

One, from which all numbers derive, is the origin of the numbers. *Two*, which differs from *one*, but at the same time is presented as one unit, derives from the *one*. *Two* as a number is not *one*, but as genus, that is *two* as such, by itself it should be one. Petritsi uses the speculative dialectics of numbers in the first chapter of his commentary, where he speaks of a hundred as of a number and its genus. Here he considers “hundredness,” as the genus of a hundred and multitude. “Hundredness” means to be *one*, a hundred as a concrete number should be one unit, and hence should be *one*.²³

The speculative dialectics of numbers clearly shows the necessity of intelligible knowledge and thereby clarifies that the nature of number, as such, guarantees generality and necessity of the knowledge. In this way Petritsi’s primary aim is substantiated: he tried to characterize important concepts of thought by means of arithmetic. It becomes evident that cognition of sensual beings can be done only by means of universal principles.²⁴

According to Petritsi, genera and types, and general definitions should be the basic elements of knowledge. Knowledge about beings should be based on these notions in order to establish a noetic order in the world of created things. The multitude derived from *one* exists on the basis of difference between concrete beings. Resemblance and difference makes possible the existence of multitude. Therefore, according to the theoretical perspective of cognition, *one* and multitude are correlative notions.

Here the importance and function of the Pythagorean theory of numbers can be seen: reality and the whole universe can be explained by means of arithmetical methods. Thus, the doctrine of Pythagoras in Petritsi’s philosophical work is, above all, considered from the theoretical-epistemological perspective. In Petritsi’s work the doctrine of numbers, the philosophy of nature, and logic obtain equal importance. These three disciplines serve for the argumentation and construction of the highest science, metaphysics. In Proclus and Petritsi they can be used to establish the true doctrine of principles, that is of philosophical theology.

4 Pythagorean Doctrine in Early Modern Georgian Philosophy: Reception and Transformation

Pythagorean doctrine was also known in the Caucasus through Old Georgian translations of Ammonius’ works. In medieval and early modern Caucasian thought Alexandrian Neoplatonism was an important philosophical movement. In the twelfth century an unknown Georgian thinker translated important works of Ammonius from Greek into Old Georgian, such as the *Commentary on Aristo-*

22 See Iremadze 2009, 285.

23 Cf. Ioane Petritsi 1937, 11.

24 See Iremadze 2011, 133–139.

le's *Categories* and the *Commentary on Porphyry's Isagoge*.²⁵ The oldest Georgian manuscripts of these translations belong to the thirteenth century.

Ammonius' version of the definitions of philosophy played an important role in the development of Georgian thought. In the medieval Georgian Christian philosophical tradition these definitions of philosophy were also known from the Old Georgian translation of the *Dialectics* of John Damascene.²⁶

Even in early modern Georgian philosophy these six definitions of philosophy were widely recognized. Therefore, in order to understand better these periods from the history of Georgian philosophy, it is necessary to pay due attention to them.

As was shown above, the work of David Anaht was decisive in the Caucasian reception of Pythagoras. David's most important philosophical work, the *Definitions of Philosophy* ("Prolegomena") is written in Greek. However, there is also an Old Armenian translation of this work. In the eighteenth century Anton Bagrationi, with his disciples and followers, translated this text from Old Armenian into Georgian. Consequently, the definitions of philosophy by the whole school of Ammonius as well by David Anaht became an object of special interest in early modern Georgian philosophy.

In early modern Georgia the importance of Pythagoras was so great that his name was included in widely used dictionaries and textbooks. For instance, in Sulkhan-Saba Orbeliani's (1658–1725) *Georgian Dictionary*²⁷ which was used in schools, there is an interesting passage where Pythagoras is named as a great philosopher.²⁸ Such a vision of Pythagoras was typical of early modern Georgian thought. Pythagoras, above all, was seen as a wise man and a philosopher. This attitude is evident in the philosophical and poetical works of the Georgian King Vakhtang VI (1675–1737). In his work Vakhtang considered Pythagoras and Plato to be the wisest men in the world.²⁹

Anton Bagrationi, one of the most important representatives of early modern Georgian and Caucasian thought, made masterly use of the Pythagorean definitions of philosophy from the Old Georgian translations of the works of Ammonius Hermiae. At the same time he also considered other aspects of Pythagorean doctrine. In his major work *Spekali*³⁰ (in Georgian: "precious stones"), when defining the essence of the soul, he put Pythagoras among other important figures in the history of thought (Heraclitus, Plato, Aristotle, Epicurus, Nemesius, Augustine, Ioane Petritsi, Albert the Great, Thomas Aquinas, etc.). In his epistemology Bagrationi paid particular attention to Pythagoras' doctrine of the soul. Like Petritsi, Bagrationi believed that study of the problem of the connection and relation

25 See Ammonius Hermiae 1983.

26 See John Damascene 1976.

27 See Orbeliani 1991.

28 Ibid., 622.

29 See Vakhtang VI 1947, 44.

30 See Bagrationi 1991.

of body and soul is extremely important, because only by means of such study is it possible to develop a theory of cognition, and, in particular, epistemology. According to Bagrationi, Pythagoras underlined the unity of soul and body and thus accurately defined one of its most important features.³¹ Bagrationi united concepts of ancient philosophy with the theoretical views of Eastern and Western thinkers, and attempted to define the nature of the soul. This attempt was successful and brought productive results. Accordingly, an influential philosophical and theological direction was created in Georgian philosophy, which was based on Anton's works and became the foundation for philosophical cooperation in the Caucasian region.

Nevertheless, in Caucasian thought Pythagoras was recognized to a lesser extent as a religious figure and mystic. In this respect, particularly noteworthy is the image of Pythagoras given in the works of the Georgian philosopher and theologian Iona Khelashvili (1778–1837).³² This great Georgian thinker considers Pythagoras (together with Voltaire, Rousseau, and Spinoza) to be an enemy of philosophy and especially of theology.³³ Khelashvili goes further, and in one of his letters to the great Georgian philosopher Solomon Dodashvili (1805–1836) he places Pythagoras among such thinkers as Epicurus, the Sophists, Stoics, and Manicheans, and accuses them of being atheists. According to Khelashvili, Pythagoras, like these thinkers, had “naturalistic” inclinations, and therefore he was not a believer.³⁴ This thesis of Khelashvili is not unusual: he was establishing his own model of Christian philosophy, where those thinkers and books were preferred which reflected divine revelation. Khelashvili was an active philosopher and theologian; he thought that the highest purpose of a man should be the discussion of divine objects, and that the best ground for such discussion is provided by Christian philosophy, more precisely by philosophical theology. He considered Pythagoras' doctrine to be an obstacle and hence useless on the path towards implementation of this task. In contrast to Petritsi's ideas about Pythagoras, Khelashvili's ideas are obviously regressive.

Nevertheless, Khelashvili's assessment of Pythagorean doctrine did not become paradigmatic. In this regard, special attention should be paid to one of the most important representatives of early modern Georgian thought, the philosopher, writer, and encyclopaedist Ioane Bagrationi (1768–1830). In his famous work *Kalmasoba*, which he wrote over fifteen years (1813–1828), he included the definitions of philosophy given in the work of David Anaht and updated them in the context of early modern Georgian and Caucasian philosophy. In this context, he paid special attention to the Pythagorean definitions of philosophy that are found in David's *Definitions of Philosophy*.³⁵ It is especially notable that Ioane

31 Ibid., 309.

32 See Khelashvili 2000.

33 Ibid., 79.

34 Ibid., 82.

35 See Bagrationi 1974.

Bagrationi's work is written in the style of a dialogue, in which the Georgian thinker Iona Khelashvili, mentioned above, is a major dramatic character. His function is similar to Socrates' function in Platonic dialogues. When in the *Kalmasoba* he is asked, "What and how many are the definitions of philosophy, which is a love of wisdom?"³⁶ Iona Khelashvili cites the definitions of philosophy from David's work, but at the same time criticizes Pythagoras. For Ioane Bagrationi it is more important to present an explicitly Pythagorean understanding of philosophy, rather than to show Khelashvili's attitude towards Pythagoras. Accordingly, he makes Khelashvili present the vision of Pythagorean doctrine that prevailed in Alexandrian Neoplatonism (Ammonius Hermiae, David Anaht, etc.). In Ioane Bagrationi, Pythagoras, as one of the most important thinkers of antiquity, is the obvious embodiment of love of wisdom, that is of the ancient understanding of philosophy. Therefore, by means of Ioane Bagrationi's vision, the Pythagorean understanding of philosophy became the object of intensive discussion in the context of Caucasian philosophy.

5 Summary

In late antique, medieval, and early modern Caucasian thought Pythagorean doctrine was interpreted by very interesting thinkers. As the history of reception and transformation discussed above shows, the Pythagorean concept of philosophy had great importance in the Caucasus. Even his mystical figure and the teaching of secret numbers was an object of interest in the Caucasian region. Together with Plato and Aristotle, he was regarded as one of the most important thinkers. Caucasian philosophers used Pythagorean doctrine extensively when discussing the essence and the role of philosophy.

The indisputably interesting task of future research in this area will be to show how Pythagoras' religious teaching and mysticism was reflected in the Caucasus. An interested researcher will find an extremely important research field in this regard. The upcoming research in this field can extend and develop our present knowledge of the history of Pythagorean influence.

36 Ibid., 187.

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Ibn Sīnā's and Al-Ghazālī's Approach to Pythagoreanism

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Introduction

Abū Ḥāmid Muḥammad b. Muḥammad Al-Ghazālī (1058–1111) famously criticized Al-Fārābī and Ibn Sīnā as well as the Ikhwān al-Ṣafā' (or "Brethren of Purity") as followers of Pythagoreanism, because of their philosophical approach and adaptation of Classical Greek philosophy, in his *al-Munqidh min al-ḍalāl* (usually translated as *Deliverance from Error*). His detailed criticism of the so-called *falāsifa* that is, the tradition of Arabic philosophy in the Greek tradition is best seen in his *Tahāfut al-falāsifa* (usually translated as *Incoherence of the Philosophers*). He explicitly takes issue with certain philosophical convictions of the *falāsifa* like the eternity of the world, God's ignorance of particulars, and the non-existence of reward and punishment in the hereafter. This is not to say that the approach of Al-Ghazālī is bare of philosophical content, however. Further, it should be noted that Abū 'Alī b. al-Ḥusayn b. 'Abdullāh b. Sīnā (980–1030, Latinized as Avicenna), who is criticized by Al-Ghazālī, also offers a rather critical depiction of Pythagorean number philosophy or number doctrine.¹ Especially in Book VII of his *Al-Ilāhiyyāt* (*al-Ilāhiyyāt min al-Shifā'* usually translated as *The Metaphysics of the Healing*), Ibn Sīnā is critical of the Pythagorean concept of number in relation to the idea of unity. This critical attitude could represent a common ground between Al-Ghazālī and Ibn Sīnā. Their critical attitudes to Pythagoreanism will therefore be examined more closely and compared to each other in this essay. Finally, I will focus on the question of why the tradition of Pythagorean rules for life appears to be absent from the accounts of both authors.

1 For a definition of the term "number philosophy" with reference to Pythagoreanism see Zhmud 2012, 13. According to this definition, number philosophy contains the notion that numbers represent an ontological principle of the world. For an application of Pythagorean number philosophy in the Platonic tradition see Zhmud 2013, 323–344. For a depiction of Aristotle's approach towards Pythagorean number philosophy see Casertano 2013, 345–368. For this see also Riedweg 2002, 105–116. For Aristotle's critic of the number philosophy see also Zhmud 2012, 399–414.

Pythagoras in Ibn Sīnā's *Ilāhiyyāt*

Ibn Sīnā's *Ilāhiyyāt*² is the metaphysical part of his major philosophical work, the *Al-Shifā'*. It was probably composed in the years 1014–20 and published in 1027.³ In this, his main metaphysical work, Ibn Sīnā concentrates in Book VII on Pythagorean philosophy within the framework of a discussion of classical Greek mathematical principles. Book VII is divided into three chapters. In the first chapter, Ibn Sīnā focuses on defining the concepts of unity and multiplicity. His starting point is clearly Aristotle's *Metaphysics*, which he closely paraphrases.⁴ Thus, already at this point, one expects Ibn Sīnā to take an Aristotelian approach towards Pythagoreanism too. In the following two chapters he develops his criticism of the mathematical and philosophical approaches of certain classical thinkers. The fact that the second chapter of Book VII is in principle composed as a criticism of different classical mathematical schools is already evident in the title of this chapter: "On the doctrine of the ancient philosophers regarding the exemplars and principles of mathematics and the reason calling for this; revealing the origin of the ignorance that befell them, by reason of which they deviated [from the truth]."⁵ Ibn Sīnā's criticism in this chapter is aimed at Plato and Platonists⁶ as well as Pythagoreans. As a general critique he argues that the ancient philosophers made a major mistake when they shifted their focus from sensible to intellectual knowledge. The great error, committed most of all by Plato and his followers, consists in conceiving of all intelligible things as being separate from sensible things, which led in turn to their corresponding assumption that there are two different forms of existence. For these thinkers, only the ideal forms contain the principles. Ibn Sīnā also criticizes an unnamed group of ancient philosophers for making the mistake of assuming two different forms of existence. The error of this group consists in imputing a separate existence to mathematical entities instead of the intelligibles. The next group at which Ibn Sīnā directs his criticism are the Pythagoreans.

Ibn Sīnā claims that the Pythagoreans consider mathematical entities or numbers to be principles. They do not distinguish between the principles, however. According to Ibn Sīnā, the Pythagoreans only differentiate between unity and duality and connect this distinction to the distinction between good and evil. For them, the concept of unity is connected with the good and all that is restricted, while duality is connected with evil and all that is unrestricted. Furthermore, Ibn Sīnā claims that Pythagoreans consider number to be comprised of unity and substance. Multiplicity comes into existence when a syncretism of the two takes

2 Avicenna 2005.

3 Goodman 1992, 31.

4 For a direct comparison of chosen paragraphs of Ibn Sīnā's text with Aristotele's *Metaphysics* see Bertolacci 2003, 25–45. In Book VII of the *Ilāhiyyāt* one finds only implicit quotations of Aristotle's *Metaphysics*, whereas other books of the *Ilāhiyyāt* contain direct quotations. For a detailed list of the implicit quotations see Bertolacci 2006, 366. See also Porro 2011, 291–292.

5 Avicenna 2005, VII, 2 = 243.

6 Marmura 2006, 355–369.

place. Ibn Sīnā expresses this as follows: "One is astonished at a Pythagorean party that maintains that number is composed of unity and substance, since unity, they maintain, does not subsist by itself. For it is unity of something and the receptacle is a substance. It is then [they argue] that composition takes place, and thus multiplicity comes to be."⁷ Ibn Sīnā believes that one can differentiate here between two subgroups of Pythagoreans. One group claims there is a difference between abstract numerical figures on the one hand, and numbers that are mixed with matter on the other. In contrast, the second group does not recognize this difference. Furthermore, according to Ibn Sīnā, Pythagoreans defend the doctrine that mathematical numbers constitute a principle but that this principle has no separate existence. This necessarily conflicts with his conviction that God is the First Principle and has an existence that is separate from all other existing things.

Ibn Sīnā is convinced that the intellectual failures of the Platonists and Pythagoreans alike can be traced back to five fundamental errors. He notes, "If you give thought [to this matter], you will find the bases of the causes of error, in all the things wherein these people have gone astray, to be five [in number]."⁸ Ibn Sīnā here lists the following five assumptions as the five fundamental mistakes. These are, namely, the assumptions that:

- I. things that can be separated in the mind are also separate in existence
- II. one is understood as quiddity (being) that is connected with existence
- III. oneness and multiplicity are identical with quiddity
- IV. a permanently existing thing is identical with the one or many of this thing
- V. the causes of material things are necessarily separate and that the causes are mathematical because they are separate

With regard to the final point, Ibn Sīnā also insists that at least some mathematical objects, specifically geometrical figures, are not independent of matter.

As the reasons Ibn Sīnā specifies here clearly show, his criticism does not necessarily focus on mathematics as mathematics, but rather on the Pythagorean number philosophy. Ibn Sīnā's approval of Pythagorean mathematics as mere mathematical principles can also be seen in his refutation of atomist theories in his *As-Samā' at-ṭabī'i*, where he uses the Pythagorean theorem to argue against atomism.⁹ In the relevant chapters of the *Ilāhiyyāt* the Arabic term Ibn Sīnā uses for mathematics is *ta'līmī*, which might be translated as "instructive science."¹⁰ By contrast, the third book of his *Al-Shifā'*, which is entirely devoted to mathematics, is called *ar-Riyāḍiyyāt*.¹¹ This expression is the plural form of the more common term in Arabic for mathematics: *Riyāḍa*. It is noteworthy that Ibn Sīnā focuses in

7 Avicenna 2005, VII, 2.12 = 246.

8 Ibid., VII, 2.15 = 247.

9 Avicenna 2009, III, 4.5 = 285.

10 See Morewedge 1975, 164.

11 Ibn Sīnā, A. I. 'A. 1984.

the third book of *ar-Riyāḍiyyāt* on music.¹² In the second chapter of Book VI of this work, Ibn Sīnā adopts the Pythagorean system for the fretting of the lute.¹³ Nevertheless, in his works on music he mainly follows the path laid out by Al-Fārābī.¹⁴ One might thus conclude that the terminology that Ibn Sīnā uses in the *Ilāhiyyāt* for mathematics indicates that he is more interested here in number philosophy. Ibn Sīnā's criticism is directed at the metaphysical implications that arise from Pythagorean and Platonist conceptions about unity and multiplicity. It turns out that they have a flawed understanding of being, for according to Ibn Sīnā's conception being is closely related to the question of the one. This was already pointed out in a discussion of this subject in Book III, Chapter 4, of the *Ilāhiyyāt*, where he explicitly writes:

And what is foremost [in importance] for us [to do] is to make known the nature of the one in these places in terms of two things. For it is incumbent on us to make known the true nature of the one in these places in terms of two things. One of them is that the one is very closely related to the existent, which is the subject of this [metaphysical] science.¹⁵

Thus, having a wrong conception of the one is tantamount to having a false metaphysics. One could even take this a step further, however. Having a wrong conception of the one and numbers and mathematical objects also implies having an erroneous understanding of God. This conclusion is apparent if one takes into consideration Ibn Sīnā's description of the purpose of metaphysics and his own approach in Book I of the *Ilāhiyyāt*. There he had already made clear that mathematical figures cannot be the principle of existing things. Only God is this principle and Ibn Sīnā formulates this within his book after showing the erroneous mathematical theories of ancient philosophers:

After this, we will move on to the principles of existing things. We will prove the existence of the First Principle and [show] that He is one, Truth, and the utmost in majesty. We will make known in how many respects He is one and in how many respects He is truth; how He knows all things and has power over all things; the meaning of "He knows" and of "He is powerful;" that He is bountiful, that He is peace – that is, pure good, that He is loved for Himself, that He is true enjoyment, and that true beauty [resides]

12 Ibn Sīnā, A. I. 'A. 1984.

13 Ibid., 143–145. Ibn Sīnā calls the lute here *barbaṭ* as well as *'ūd*. Farmer has shown that Al-Kindī was the first to take over the Pythagorean system for lute playing. Al-Fārābī and Ibn Sīnā followed him. See Farmer 1937, 245–257.

14 For both of them, the effect that music has on human beings is of great importance. In contrast, authors like Al-Kindī and the Ikhwān al-safā' rather focus on the things that music is thought to represent, namely the music of the spheres. The latter's conception of this is an application of Neoplatonic and Pythagorean ideas on music. See Leaman 2004, 105–109. For a detailed discussion of why Ibn Sīnā's approach contains a rejection of the Pythagorean understanding of music see Shehadi 1989, 217–227.

15 Avicenna 2005, III, 1.10 = 73.

with Him. We will then strip away the opinions stated and thought of Him that are contrary to the truth.¹⁶

The inference presents itself here that the major mistake of the Pythagoreans, in the end, consists in having the wrong conception of the divine and of being.

Ibn Sīnā's line of reasoning becomes clearer when, in addition to his criticism in Chapter 2 of Book VII, one also considers his criticism in Chapter 3 of the same book. Here he discusses in detail the problem of whether mathematical objects devoid of matter can exist. He points out that mathematical objects can clearly be abstracted from a specific kind of matter. Nonetheless they can never be conceived of as completely devoid of matter. Especially concepts like unity or plurality can be separated from matter, but they are still to be thought of conceptually as being connected with matter, even though they are not conjoined with any matter in particular. Thus, in the case of mathematical objects, the abstraction from matter can never be total. For things to be considered as subjects of metaphysics, however, they must be completely abstracted. Mathematical objects, therefore, cannot be the subject of metaphysics, such as are, for example, the mind, pure existence or, most of all, God. Furthermore, numbers cannot constitute the forms of materially existing things. The most problematic conception, again, is the one or unity. The mistake of the Pythagoreans in this context is an erroneous concept of unity that considers unities to be the principles of measures or dimensions. As Ibn Sīnā writes: "Another [group of] people made postulated unity as hyle for number; another group made it as form because [unity] is predicated of everything. One is astonished by the Pythagoreans when they made the indivisible unities the principles of measures, knowing [full well] that measures regress in indivisibility *ad infinitum*."¹⁷ As in the previous chapter, the criticism here revolves around a misunderstanding of the idea of one and unity. The ultimate aim of Ibn Sīnā's argumentation becomes evident in the closing paragraphs of the chapter, where he points out that his criticism mainly targets the conception that the existing world originated from numbers: "Some people among them made the things [that exist] to be generated from a number that corresponds with a quality and exists with it."¹⁸

Ibn Sīnā's account in these chapters appears to want to refute a grounding of metaphysics in mathematics and thus draw a clear distinction between mathematical and metaphysical knowledge. The Pythagoreans as much as the Platonists are to be blamed for a false conception of mathematics which wants to be metaphysics. His criticism is thus clearly directed at the so-called number philosophy. As a result, Ibn Sīnā appears to stand in the Aristotelian critical tradition with regard to Pythagorean number philosophy as it is laid out in numerous

¹⁶ Ibid., I, 4.7 = 21.

¹⁷ Ibid., VII, 3.15 = 254.

¹⁸ Ibid., VII, 3.24 = 256.

works like the *Physics*, *De caelo*, or *Metaphysics*.¹⁹ Ibn Sīnā combines this criticism with a monotheistic perspective. His primary reason for rejecting the accounts mentioned is their conception of one and unity, which appears to be incompatible with a monotheistic God, who is understood as the First Principle. Given the metaphysically and religiously grounded criticism of Pythagorean number philosophy in the work of Ibn Sīnā, it is therefore not surprising that Al-Ghazālī expresses appreciation for Ibn Sīnā in the very same book in which he criticizes Pythagoras, namely in the *al-Munqidh min al-ḍalāl*.

Pythagoras in Al-Ghazālī's *Al-Munqidh min al-ḍalāl*

As mentioned above, Al-Ghazālī undertakes a major critique of Pythagoreanism in his book *al-Munqidh min al-ḍalāl*²⁰ (usually translated as *Deliverance from Error*). This book was probably written in 1105 and 1106, a period of his life when he had already left his academic post in Baghdad, completed his turn to Sufism, and returned to his hometown Tus after a long journey. It is an autobiographical work in which Al-Ghazālī reports on his life and his inner development. The main aim is to describe the path that needs to be taken to be cognizant of the truth. To describe what he is looking for, Al-Ghazālī uses the words “sure and certain knowledge.”²¹ To this end, he describes different ways of cognition and their epistemological status. The first way of gaining the insights that he discusses is sensory perception. Here, he mainly focuses on the visual faculty, showing its capacities and limits in a way that recalls Aristotle's approach in *De Anima*. The second way of gaining this knowledge is through the reasoning faculty – although for Al-Ghazālī the insights of reason do not lead to completely reliable knowledge. The last and most effective way of gaining this knowledge is through the non-mediated, intuitive knowledge of God. Al-Ghazālī also calls this kind of knowledge, which is given to man by God out of his mercy, “light.” It is precisely this light which allows the special insights that Al-Ghazālī has in mind. He writes, “From that light must be sought an intuitive understanding of things Divine.”²² The metaphysics of light that he describes here is more clearly laid out in his book *Mishkāt al-anwār* (usually translated as *Niche of the Lights*).²³ It is in this book that his ideas about the inner senses, imagination, intuition, and prophetic insight are most vividly presented. Despite his criticism, the deliberations in this book also reflect Al-Ghazālī's indebtedness to the Neoplatonic Aristotelian epistemological tradition, in which Ibn Sīnā also stands.

19 For Aristotle's critique of the number philosophy in the mentioned works, see Zhmud 2012, 399–414.

20 For quotations from the Arabic original, I refer to the edition of Saliba and 'Ayyad. Al-Ghazālī 1967, *al-Munqidh min al-ḍalāl* (Deliverance from Error). For the English translation, I rely on the following edition: Watt 1967.

21 Watt 1967, 21.

22 Ibid., 26.

23 Al-Ghazālī 1964, *Mishkāt al-anwār*.

In the course of his discussion in *al-Munqidh min al-ḍalāl*, Al-Ghazālī also tries to assess major schools of thinking that were prevalent during his lifetime. He discusses in the second part of the book the doctrines and ideas of different thinkers of his day under the heading of "classes of seekers." He accordingly differentiates between four different classes: the theologians (or Mutakallimūn), the philosophers, the Bāṭinīya, and the Sufis (or mystics). The teachings of the Bāṭinīya or *Ikhwān al-ṣafā'* / *Brethren of Purity*²⁴ receive the greatest criticism in this context. As regards Pythagoreanism, this criticism is of particular interest, because Al-Ghazālī rightly considers the Bāṭinīya to be followers of Pythagoreanism.²⁵ The Pythagorean philosophy itself is considered in this context to be the weakest possible form of ancient Greek philosophy. Al-Ghazālī offers the following appraisal:

But this knowledge, as they describe it, amounts to some trifling details of the philosophy of Pythagoras. The latter was one of the earliest of the ancients and his philosophical system is the weakest of all; Aristotle not only criticized him but showed the weakness and corruption of his thought. Yet he is the person followed in the Book of the Brethren of Purity, which is really but the dregs of philosophy.²⁶

This hierarchization of thought leaves rather few doubts about how Al-Ghazālī ranks the value of Pythagorean philosophy. The thinking of the Bāṭinīya is to a great extent the wrong approach towards truth, because it is based on Pythagoras' erroneous philosophical ideas. Interestingly, Aristotle is here taken to provide reliable testimony against Pythagoras. Al-Ghazālī's criticism in this instance is based upon the sharp distinction he had laid out earlier in the book between different ancient Greek philosophical schools. He clarifies that not all of these schools are erroneous in the same way or to the same extent. Nonetheless, he clearly assigns Pythagoreanism the lowest possible rank. This becomes even more prominent if we also take into account the description and classification of philosophers and philosophies that Al-Ghazālī has provided in the preceding chapter. A closer look at this classification makes it impossible to claim "that Pythagoreanism and Ibn Sīnā's Peripatetic philosophy came under severe criticism by Al-Ghazālī."²⁷ This would suggest that his criticism would in both instances be as harsh and directed towards the same problems, but it is clear, to the contrary, that his criticism of Pythagoras is both stronger and more fundamental.

24 There is debate on whether the term *ṣafā'* should be translated as purity or sincerity. De Callatāy explains that the name primarily aims to express and underline "true friendship, unflinching loyalty." De Callatāy 2005, 3. For a general introduction to the thinking of the Brethren of Purity see also, Netton 2002.

25 The *Ikhwān al-ṣafā'* actually were followers of Pythagoreanism in many aspects. One of their Epistles (Epistle 32 "On the intellectual principles of the existing beings according to the Pythagoreans") entirely focuses on Pythagorean thinking. See De Callatāy 2005, 13, 18 and 24. See also Netton 2002, 9–10.

26 Watt 1967, 53.

27 Bakar 1998, 182.

In Al-Ghazālī's chapter on philosophers, he distinguishes between three different classes of philosophers: materialists, naturalists, and theists. He considers only the thinking of the philosophers of the last class as also containing positive and meaningful insights. As representatives of this class, he explicitly cites Socrates, Plato, and Aristotle. The latter receives praise for his systematic approach: "It was Aristotle who systematized logic for them and organized the sciences, securing a higher degree of accuracy and bringing them to maturity."²⁸ Besides this obvious approval, Al-Ghazālī points out that Aristotelian philosophy still contains some unbelief and heresy and that this is also true of its Islamic proponents. Nevertheless, he considers Al-Fārābī and Ibn Sīnā to be the most commendable exponents of Aristotelianism because of their way of dealing with it. He underlines this by saying:

[...] Ibn Sīnā, al-Fārābī and others; in transmitting the philosophy of Aristotle, however, none of the Islamic philosophers has accomplished anything comparable to the achievements of the two men named. The translations of others are marked by disorder and confusion, which so perplex the understanding of the student that he fails to comprehend; and if a thing is not comprehended how can it be either refuted or accepted?²⁹

Thus, Al-Ghazālī clearly recognizes a hierarchy of philosophical ideas and their proponents. Aristotle and his Islamic advocates receive the highest rank in his order. To examine the philosophical schools, he introduces three different categories for the evaluation of their ideas. He considers their conceptions to be either undeniably truthful, heretical, or evidence of unbelief. His listing and evaluation of six philosophical sciences clearly indicates which parts of the philosophical tradition he considers to be the most reliable. Mathematics and logic receive his praise. The term he uses for mathematics is *Riyāḍa*,³⁰ which, as explained above, is the usual Arabic term for mathematics. His description of mathematics, further, makes clear that his approach to it would leave no room for number philosophy:

[Mathematics] embraces arithmetic, plane geometry and solid geometry. None of its results are connected with religious matters, either to deny or to affirm them. They are matters of demonstration which it is impossible to deny once they have been understood and apprehended. [...] A grievous crime indeed against religion has been committed by the man, who imagines that Islam is defended by the denial of the mathematical sciences, seeing that there is nothing in revealed truth opposed to these sciences by way of either negation or affirmation, and nothing in these sciences opposed to the truth of religion.³¹

²⁸ Watt 1967, 32.

²⁹ Ibid.

³⁰ Al-Ghazālī 1967, 79.

³¹ Watt 1967, 33.

However, Al-Ghazālī considers mathematics to be problematic if it leads to an inconsiderate appraisal of all kinds of philosophy that does not reflect upon its possible failures and dangers.

Al-Ghazālī appears rather indifferent to political philosophy. He finds most problematic Aristotelian metaphysics and, to some degree, natural philosophy and ethics. In his criticism of this kind of metaphysics, he refers to his own earlier work *Tahāfut al-falāsifa* and repeats the major points of criticism made there. His main bone of contention with Peripatetic metaphysics is its denial of bodily resurrection and bodily rewards and punishments in the hereafter, along with the claim of the eternity of the world and God's ignorance of particulars. Beyond this, its theory of divine attributes appears erroneous to him. Nevertheless, Al-Ghazālī explicitly points out that, "(t)he views of Aristotle, as expounded by Al-Fārābī and Ibn Sīnā, are close to the Islamic writers."³² Thus, despite his objections to particular claims of the Neoplatonic Aristotelian *Falāsifa*, Al-Ghazālī is willing to admit that their metaphysics *in nuce* could at least be considered Islamic and thus truthful. This is not the case, however, when Al-Ghazālī describes the metaphysics of the Bāṭiniya as followers of Pythagoras.

He criticizes followers of the Bāṭiniya, also called Ta'limiyya by Al-Ghazālī,³³ for their conception of "Authoritative Instruction." At the heart of his criticism is the teaching of this group that one hidden infallible imam or instructor (Ta'lim) has access to the absolute truth.³⁴ Al-Ghazālī agrees with this point insofar as he emphasizes that there is indeed one infallible instructor. This is not a hidden imam, however, but the prophet Muḥammad himself. After his death and his perfection of religion, there was no need or space for another infallible instructor. A further point of criticism concerns the restrictive attitude of the Bāṭiniya towards the concept of independent judgment or interpretation (*ijtihād*). In addition, Al-Ghazālī complains that this group of thinkers spend their lifetimes searching for this infallible instructor and his knowledge, while they themselves remain without any concrete knowledge. The only kind of knowledge to which they explicitly refer, according to Al-Ghazālī, is the teachings of Pythagoras. He denounces this, however, in the way already described above. The recourse to Pythagoreanism thus cannot lead to Al-Ghazālī's desired certain knowledge. Unfortunately, he fails in his account to explain unambiguously in what way Pythagorean philosophy is erroneous. We may presume that this was because it suffers from a false epistemology and a false metaphysics that do not lead to truth and insight to the

³² Ibid., 37.

³³ Al-Ghazālī 1967, 91.

³⁴ Al-Ghazālī had already composed a critical book about the Bāṭiniya during his time in Baghdad. The Caliph Mustazhir had around 1092 commanded him to write a confutation of this group. The title of this earlier book was *al-Mustazhiri* or *Fada'ih al-Batiniyya wa fada'il al-mutazhiriyya* (Infamies of the Esoterics and the Renown of the Exoterics). In response to the book he was accused of restating, systematizing, and by that defending the ideas of the Bāṭiniya by orthodox Sunni theologians, as he himself reports in *Al-Munqidh min al-dalāl*. See Watt 1967, 44.

divine, but Al-Ghazālī himself does not point this out. He also does not explicitly mention Pythagorean number philosophy, as Ibn Sīnā had done.

Ibn Sīnā, Al-Ghazālī, and the Pythagorean way of life

Neither Ibn Sīnā nor Al-Ghazālī addresses in his account the question of evaluating the practical religious teachings of the Pythagoreans or the Pythagorean way of life. One can only speculate on possible reasons for this, though it is most probably attributable to the fact that both authors express the conviction in their works that the concrete rules of life should be based on the prophetic revelation and associated divine sources. There is therefore no real need for either author to provide a philosophically grounded ethics or prescriptions for life that are not based on religious teachings. This argument is supported by a closer look at the relevant passages of the books discussed here, namely the *Ilāhiyyāt* and *al-Munqidh min al-ḍalāl*.

Ibn Sīnā devotes the last book of his *Ilāhiyyāt* to the question of prophecy and revelation. He focuses on practical philosophy only in this Book X, where his ideas include deliberations about politics, household management, and ethics. Given the fact that the whole project of the *Al-Shifā'* consists of twenty-two volumes and only contains this small section on practical philosophy at the very end of the *Ilāhiyyāt*, it is evident that ethics was not one of Ibn Sīnā's major philosophical concerns.³⁵ In the relevant passage at the end of the *Ilāhiyyāt*, Ibn Sīnā clearly ascribes the role of lawgiving to the prophet Muḥammad:

It follows necessarily, then, that the Prophet (may God's prayers and peace be upon him) must plan with great care to ensure the preservation of what he prescribes and legislates in matters pertaining to human welfare. Without doubt, the fundamental principle in this is that men must continue in their knowledge of God and the resurrection and that the cause for forgetting these things with the passage of the century succeeding [the mission of] the Prophet [may God's prayers and peace be upon him] must be absolutely eliminated. Hence, there must be certain acts and works incumbent on people that the legislator must prescribe to be repeated at proximate intervals, so that the time in which [the act] is enacted would be close to the one that succeeds it.³⁶

This statement is followed by descriptions of the instructions for prayer and the administration of the state and private life, such as the marriage laws given by the Prophet. These passages appear to offer a philosophical legitimization of Shari'a and suggest unequivocally that there was no room for prescriptions for living

³⁵ Nevertheless, he appears to have written a short treatise on ethics independently. See Karliga 2002, 21–35.

³⁶ Avicenna 2005, X, 3.1 = 367.

that are not based on Shari'a. He thus clearly considers the revealed text to be a sufficient source of rules for life in the form of prescriptions and prohibitions.³⁷

In contrast, Al-Ghazālī concerned himself with religiously grounded ethics in many of his writings, focusing on right conduct, development of a good character, and improvement of the soul.³⁸ In his *al-Munqidh min al-dalāl* he also concentrates on philosophical ethics. As discussed above, Al-Ghazālī criticizes philosophy in one chapter, discussing in particular the related philosophical sciences. Ethics, one of the six philosophical sciences he addresses, is not dismissed entirely. However, he considers the ancient philosophers to have adopted divine insights that had been received by religious mystics. In this way, philosophical ethics originated in the teachings of the mystics. Furthermore, Al-Ghazālī distinguishes between two different ways of dealing with philosophical ethics. The first receives his praise, as long as it is compatible with Shari'a. He remarks as follows:

Suppose, however, that the statements are found only in the philosophers' books. If they are reasonable in themselves and supported by proof, and if they do not contradict the Book and the Sunnah (the example of Muhammad), then it is not necessary to abstain from using them. If we open this door, if we adopt the attitude of abstaining from every truth that the mind of a heretic has apprehended before us, we should be obliged to abstain from much that is true.³⁹

Al-Ghazālī goes even further here, recommending the closer examination of philosophical ethics to identify any divine truth comprised in them, even in the case of thinkers whose other theories prove to be false. He qualifies this recommendation, however, by explaining that the acceptance of a truthful ethical idea from the work of a heretical thinker must not lead to the erroneous acceptance of his whole work. In the case of this particular danger, he recommends in preference a complete abstention from reading. The only work that he specifically mentions as a danger in this context is the book of the *Ikhwān al-ṣafā*.⁴⁰ With this remark, he rejects even the possibility of examining their prescriptions for life, be they influenced by Pythagoreanism or not. Nonetheless, given the fact that Al-Ghazālī in the same work considers this group to be followers of Pythagoreanism and sees Pythagoreanism as the worst form of false philosophy, it would appear that a Pythagorean way of life does not come into consideration at all for him.

37 Strohmaier expresses in his book a similar idea about the absence of an ethics in the work of Ibn Sīnā by saying: "[Die Ethik] bleibt damit eine Domäne der Scharia und kommt bei [Ibn Sīnā] nur am Rande und im Kontext der Seelenlehre und der Metaphysik vor." Strohmaier 2006, 108.

38 For a depiction of Al-Ghazālī's ethical approach see Hourani 2007, 135–166. Sherif 1975.

39 Watt 1967, 41.

40 Ibid., 42.

Against the backdrop of these convictions of Ibn Sīnā and Al-Ghazālī, the absence of a discussion or concrete examination of Pythagorean rules of life is quite comprehensible.

Conclusion

Ibn Sīnā and Al-Ghazālī in the books we have examined follow an Aristotelian approach to Pythagoreanism. This is less surprising in the case of Ibn Sīnā, who can generally be deemed a representative of a Neoplatonic Aristotelianism. What clearly unites their criticisms is their skepticism towards Pythagorean metaphysics. Both authors are convinced that no insights can be gained into the divine knowledge via the Pythagorean approach. Ibn Sīnā explains much more explicitly in his account the reasons for his rejection of Pythagoreanism, which he contends is based on erroneous mathematics that communicates a false understanding of unity and consequently arrives at a wrong conception of God. Al-Ghazālī was clearly familiar with Ibn Sīnā's account, a familiarity also attested by Al-Ghazālī's earlier work *Tahāfut al-falāsifa*. Especially telling is the explicit statement that Ibn Sīnā and Al-Fārābī, as interpreters of Aristotle, rank among of the highest of all philosophers and come closest to genuine Islamic thinkers in their approaches. Despite Al-Ghazālī's criticism, this indicates his particularly strong appreciation for Ibn Sīnā. It is also significant that he points out that especially their accounts of logic and mathematics are correct. Given that Al-Ghazālī was well acquainted with Ibn Sīnā's works, this suggests that he agrees with Ibn Sīnā's criticism of Platonic and Pythagorean mathematics and metaphysics in Book VII of the *Ilāhiyyāt*. This, in turn, could offer an explanation for the fact that he felt no further need to point out the ways in which Pythagoreanism is erroneous, for he adopted the Aristotelian criticism. This is supported by the quotation mentioned above, in which Aristotle functions as witness against Pythagoras. The Aristotelian criticism he refers to, however, is the Avicennian perspective on Pythagoras with which Al-Ghazālī was familiar from the *Ilāhiyyāt*. This is astonishing given that Al-Ghazālī usually represents himself as an author who is rather critical of Aristotelianism, as is also borne out in the work examined here.

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Marsilio Ficino and Plato's Divided Line: Iamblichus and Pythagorean Pseudepigrapha in the Renaissance

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More than any of his contemporaries Marsilio Ficino (1433–1499) is responsible for shaping the reception of Plato and Platonism in the Renaissance and early modern Europe. In addition to distinguishing himself as a philosopher in his own right with such works as his eighteen-volume *Platonic Theology*, Ficino is known primarily as the translator and interpreter of the first complete and accurate Latin translations of Plato and Plotinus. Ficino also earned his reputation by translating the *Corpus Hermeticum* and numerous other, largely Neoplatonic works (at times as paraphrastic exegeses or partial translations), which would find their way into his 1497 (Venice) edition of Iamblichus' *De mysteriis*.¹ Christopher Celenza has demonstrated that Ficino's circulation of the Pythagorean *Aurea verba* and *Symbola* enhanced both his and Pythagoras's influence and spawned a series of imitative approaches towards Pythagorean thaumaturgy and soteriology in the Renaissance.² Michael Allen has also shed light on Ficino's employment of Pythagorean mathematics and harmonic theories.³ Allen's and Celenza's readings begin to correct the previous neglect by modern scholars of the Pythagorean dimension of Ficino's work. In fact, Pythagoreanism is much more central to Ficino's early philosophical development than has hitherto been noted. Besides the above translations, Ficino also translated Theon of Smyrna's *Mathematica* and Iamblichus' *De secta pythagorica*.⁴ His translations of *De secta pythagorica* and the

1 Iamblichus 1497, includes the following translations: Iamblichus, *De mysteriis*; Porphyry, *De Abstinencia* and the *Sententiae*; Proclus, *De sacrificio et magia*, his commentary on the *First Alcibiades*, and brief portions of his commentary on the *Republic*; Synesius, *De insomniis*; Psellus, *De daemonibus*; Priscian of Lydia's commentary on Theophrastus' *De sensu, phantasia, et intellectu*; Alcinous, *Liber de doctrina platonis*; Xenocrates', *De morte*; Speusippus', *Liber de platonis definitionibus*; as well as the Pythagorean *Aurea verba* and *Symbola*.

2 Celenza 1999, 667–711; Celenza 2001, 15–52.

3 Allen 1982, 171–192; Allen 1994; Allen 2014, 435–453.

4 Kristeller also identified Ficino's translation of Hermias' commentary on the *Phaedrus*. See Kristeller 1937–45, 1: cxlv–cxlvii. I have documented fragments of Ficino's translations of Proclus' *Elements of Theology*, and have documented the evidence for Ficino's lost translations of Proclus' *Elements of Theology* and *Physics*: Robichaud 2016. I am adopting Ficino's title of the work, which is the translation of the Greek title that he found in the pinax to MS. Florence, Biblioteca Medicea Laurenziana, Plut. 86.03. Three Greek titles are given by

Mathematica, which I am presently editing, have never been printed, nor been the subject of extensive scholarly study. In fact, they were long thought lost before Paul O. Kristeller located their manuscripts. Despite their rediscovery the most recent editions, translations, and studies of Iamblichus' and Theon's works ignore their existence altogether.⁵ More generally, with the exception of Sicherl's early and important work, the significant influence of Iamblichus on Ficino's thought and the Renaissance overall is only now beginning to be studied.⁶

Ficino inherited a late ancient habit of organizing the history of philosophy, religion, and thought in terms of a spiritual *diadoche* or succession. This type of understanding of the historical transmission of knowledge is not a purely abstract history of a doctrine or idea. It is a habit of mind that requires actual persons to serve as spokespersons for the *logoi* connecting one generation to the next. For example, a common feature shared by the traditions of ancient Orphism and Pythagoreanism is the doctrine of the immortality of the soul. In his *De secta pythagorica* Iamblichus expresses this commonality in terms of Pythagoras' life and personal connection to the shadowy figure of Aglaophamus, who supposedly initiated Pythagoras into the Orphic mysteries.⁷ Pythagoras then transmitted the knowledge of the immortality of the soul to his own disciples who, in turn, taught this doctrine to Plato. Thus Ficino's *prisca theologia* is organized according to prosopopoeic reasoning, whereby, in his classic formulation of this lineage of ancient theologians, Zoroaster, Hermes, Orpheus, Aglaophemus, Pythagoras, and Plato become spokespersons for a single emanative religious spirit. Ficino utilized numerous sources to construct his *prisca theologia*, including Proclus' *Platonic Theology* 1.5 for example, but it is the Iamblichean connections that are of present interest. Continuing down the genealogy, it is not only Pythagoras' personal initiation into the Orphic *adytum* by Aglaophamus that presents problems of pseudonymity: the transition from Pythagoras to Plato raises equally interesting questions, for which Ficino again seeks answers in Iamblichus' *De secta Pythagorica*.

I have recently argued that the prosopopoeic nature of Ficino's exegesis of the Platonic *corpus* helps us understand Ficino's grasp of the dialogic nature of the corpus as well as Plato's place in philosophical genealogies. The way in which Ficino approaches the Pythagorizing Plato is no exception. Plato, we are told, imitates and follows them in the *Timaeus*, in which he wears a Pythagorean persona. While the division of philosophy into the Pythagorean, Socratic, and Platonic was already present in Antiquity, e. g. in Numenius, Cicero, Augustine, and Proclus, Ficino uses the triadic division to form his prosopopoeic interpretation of the

the manuscript tradition: Περί τῆς πυθαγορικῆς αἰρέσεως, ἢ τῶν πυθαγορείων δογμάτων συναγωγή, Πυθαγόρει ὑπομνήματα.

5 See for instance, Napolitano Valditara 2000, 45–46; Iamblichus 2006; Theon of Smyrna 2010.

6 Sicherl 1957; Copenhaver 1987, 441–455; Celenza 2002, 71–97; Saffrey / Segonds 2006, 117–124; Toussaint's introduction to the facsimile: Iamblichus 1497, i–xvii; Giglioni 2012, 3–36; Robichaud 2017.

7 Lobeck 1829, 723.

Platonic corpus itself.⁸ He identifies moments in the corpus where Plato speaks in the persona of Socrates, other occasions in the personae of Pythagoreans, and finally in the *Laws* and the *Epinomis*, where Plato addresses his audience in his own voice under the pseudonymous name of the Athenian Stranger, as well as in the *Letters*, where Plato abandons the dialogic form.⁹ Plato, for Ficino, played the role of Janus for later Greeks since his writings were fundamentally expressing the philosophy of two great predecessors who chose to communicate their thought orally: Pythagoras and Socrates. Yet the Renaissance philosopher believed that Plato also had Pythagorean books to help him in his work.

Ficino, for instance, drew on Proclus' *In Timaeum* to claim that Plato wrote the *Timaeus* in a Pythagorean persona: "Just as in the *Parmenides* Plato expresses with great talent all *genera* of the divine, so in the *Timaeus* all of nature is encompassed, and in both of these works he is mostly a Pythagorean, arguing under a Pythagorean persona (or mask). Indeed in the *Parmenides* he imitates (*imitatur*) Parmenides and Zeno, Eleatic Pythagoreans who wrote about the divine, but in the *Timaeus* he follows (*sequitur*) Timaeus of Locri – a Pythagorean who wrote a book about the nature of the universe. However, he not only adds eloquence to them, but also mysteries."¹⁰ Two marginal notes in Ficino's hand in a Florentine manuscript of Proclus' *In Timaeum* confirm where he found his inspiration. Next to Proclus' opening paragraph (*In Tim.* 1.1.1–15) describing the *Timaeus*' skopos (the study of nature as a whole) and how a certain sillographer, Timon of Phlius (c. 320–230 BC), claimed that Plato took the material for his dialogue from the Pythagorean Timaeus' Περί Φύσεως, Ficino writes simply: "the subject is on universal nature just as Timaeus the Pythagorean."¹¹ A few folios later, where Proclus takes up the question of the dialogue's form and character (*In Tim.* 1.1.7.17–8.29), saying that once Plato had the Pythagorean Timaeus' book he undertook to write his *Timaeus* in the guise of the Pythagoreans (τὸν τῶν Πυθαγορείων τρόπον), Ficino is prompted to jot down: "The style of Plato is partially of the Socratic kind and partially Pythagorean. He treats natural things divinely – Aristotle, however, is contrary [to this approach] – Nature is something divine, therefore, this book on nature mixes the divine with the natural."¹² Thus Ficino also read of stories and rumours of Plato's supposed plagiarism in Diogenes Laertius and various other sources.¹³ Of notable importance to Ficino was the account that he supposedly received the "Pythagorean books" of Philolaus.¹⁴ In fact Proclus only speaks of a

8 Robichaud 2014, 87–114.

9 Ibid., 87–114.

10 Ficino 1576 = Fic. Op. 1438.

11 "Subiectum de universa natura sicut Timaeus Pythagoricus" MS. Florence, Biblioteca Riccardiana, 24 f.1r.

12 "Stilus Platonis qualis, partim sed Pythagoricus partim Socraticus. Tractat naturalia divine. Aristoteles autem contra. Natura est non nihil divinum. Ergo hic liber de natura miscet divinum cum naturali." MS. Florence, Biblioteca Riccardiana, 24, f.3v.

13 See recently Brisson 2000, 25–41.

14 Riginos 1976, 165–174; Burkert 1972, 218–298; Brisson 2000, 33–34.

certain Pythagorean Timaeus' *On Nature*. Ficino probably could have concluded on his own that Timaeus of Locri is intended, but he also read the explicit identification in Iamblichus' *De secta pythagorica*, where he compares *Timaeus* 31c–32a to a passage from Timaeus of Locri: "And even before Plato the Pythagoreans made the same distinctions on this topic. In fact Timaeus of Locri in his *On the nature of the cosmos and the soul* (from which, they say, Plato had been supplied with material and wrote the work that received the name *Timaeus* on account of this; one of those who report this is Timon the composer of the satirical poems who says that 'Plato bartered a large sum of money for the little book, thence undertook to work on the *Timaeus*') somehow says this..."¹⁵ If Ficino reasons that Plato had these books to help him compose the *Parmenides* and the *Timaeus*, he also believes that he had other specific works to help him express the *Republic* through a Pythagorean persona.

We know from the anonymous prolegomenon to Plato that Iamblichus (and Proclus after him) did not include the *Republic* in the cycle of Plato's dialogues that he taught in his school at Apamea.¹⁶ On these grounds some scholars assume that Iamblichus paid no attention to Plato's great dialogue since they believe that he and other Neoplatonists took no interest in the Athenian's political works. Yet Dominic O'Meara has argued that in the *De secta pythagorica* there are a number of references that imply that Iamblichus did in fact study the *Republic* attentively and concluded that it is a "Pythagorean document."¹⁷ In Ficino's case, it has been correctly observed that one reason why Ficino thinks of the *Republic* as Pythagorean is that the dialogue's arguments on communal property agree with the Pythagorean precept that "among friends all things are held in common," which are also the closing words of the *Phaedrus* and is an opinion that Ficino believes is retracted in the *Laws* – a work, to repeat, which he claims expresses Plato's own voice.¹⁸ However, Ficino also specifically turned to Iamblichus' *De communi mathematica scientia*, the third book of the *De secta pythagorica*, to find Plato's Pythagorean sources for the *Republic*.

The *De secta pythagorica* apparently once contained ten volumes. Of these only the first four, which Ficino translates, are extant. Volumes five, six, and seven were known and quoted by the Byzantine savant Michael Psellus (c. 1017–1078) but have not come down to us otherwise. Although we do have a text entitled *On Arithmetic in Theological Matters*, as O'Meara has demonstrated, it is almost certainly not the work of Iamblichus but a compilation of various tracts. The remaining three volumes of the *De secta pythagorica* are missing.¹⁹ The work has a specific programmatic structure. It begins with the *On the Pythagorean Life*, which serves as a model for the exemplary and even miraculous life of the philosopher and his

15 Iamb. in Nic. 1894, 105.10–17.

16 Westerink et al. 1990, lviii–lxvii.

17 O'Meara 1999, 197; See also O'Meara 2003.

18 Celenza 1999, 687–689; See also Allen 1982, 174–175.

19 Allen 1989, 30–105; 217–229.

sect and followers. The *Protrepticus* comes next. Through it the reader's soul is supposedly turned towards the study of philosophy, the moment of ἐπιστροφή when the prisoners in the cave turn their heads, so to speak. Thereafter the reader studies the principles of mathematics in the *De communi mathematica scientia*, before turning towards the specific mathematical disciplines of arithmetic, geometry, music, and astronomy. There is therefore, I believe, an analogical correspondence with the formal structure of Books 4–10 of the *De secta pythagorica* and the disciplinary *cursus* of Book 7 of the *Republic*. If one follows the logic of this analogy, the *De communi mathematica scientia* (book 3 of *De secta pythagorica*) corresponds to Book 6 of the *Republic*, since both introduce the *cursus* of disciplines in book 7. It is therefore for significant reasons that Iamblichus there introduces a discussion of the divided line from Book 6 of the *Republic*.

The subject matter of the *De communi mathematica scientia* is not the individual branches of science (arithmetic, geometry, music, and astronomy) but mathematics as such, that is the mathematical principles (ἀρχαὶ τῶν ὅλων μαθημάτων) of all discursive reasoning employed by individual mathematical disciplines.²⁰ Accordingly it is dedicated to the metaphysical principles that ground epistemological judgments. In the eighth chapter of the work Iamblichus analyses the criterion (κριτήριον) for mathematical judgments, and argues that discursive reasoning functions according to the differences (διαφοράς) produced by the divisions of reason's methods of aphaeresis and division (ἀπο διαίρεσεως).²¹ Iamblichus thereafter quotes two Pythagorean pseudepigraphic texts. The first is attributed to Brotinus' book *On the Intellect and Discursive Reasoning* (Περὶ νοῦ καὶ διανοίας), which provides an account of the mathematical analogy of the divided line made famous at *Republic* 509d7 (although the fragment does not mention it explicitly): "And on account of which Brotinus in his book *On the Intellect and Discursive Reason* dividing them [the levels of knowledge] from one another says the following: 'discursive reason is more (μειζόν) than the intellect, and the object of discursive reasoning is more than the intelligible. For the intellect is simple and not composite, and is the first thinking and the first thought (but this is the idea; for it is indivisible and not composite and first before the others), but discursive reasoning is manifold and divisible, and is the second thinking (for it has received science and reason); and proportionately the objects of discursive reasoning, which are the things known, demonstrated, and universal, are received from the intellect and through reason.'" ²² Brotinus' pseudepigraphon argues that the line is divided into unequal segments and that the larger portion of the line corresponds to discursive reasoning (διάνοια), whereas the smaller identifies the intellect (νόος). Analogously, according to the same ratio the larger segment also corresponds to

20 On Iamblichus' *De communi mathematica scientia* see O'Meara 1989, 44–51; 157–166; Romano 1995; Romano 2000, 1–13; Bechtle 2000, 15–44; Napolitano Valditara 2000, 45–69; Brisson 2012, 37–49; and Merlan 1960.

21 Iamb. *Comm. Math.* 32.8–12.

22 Iamb. *Comm. Math.* 34.20–35.6. Thesleff 1965, 55.

the objects of discursive reasoning (διανοατά) and the smaller to the intelligible objects of thought (νοητά).

The second pseudepigraphon of importance to the present inquiry that is quoted by Iamblichus is one of Archytas':

But Archytas in his *On the Intellect and Sense Perception* (Περὶ νοῦ καὶ αἰσθήσεως) distinguishes still more clearly the criteria of beings, and establishes the criterion (κριτήριον) corresponding to mathematics with the following: "In our very selves, he says, with respect to our soul there are four kinds of knowledge, intellect, science, opinion, and sense perception, two of which are the origins of reasoning, namely intellect and sense perception, but two are at the end, namely science and opinion... For just like a line divided in two equal (ῖσα) segments, with each segment again divided according to the same ratio, thus also one divides the intelligible from the visible, and again one divides in this way each of these segments to differentiate one another with respect to clearness and obscurity."²³

This corroborates Brotinus' analogy of faculties of discursive reasoning and intellect with their matching objects, but it also unfolds the two lower analogous levels of belief (δόξα) and sense perception (αἴσθησις) and their corresponding metaphysical realities, namely objects of perception and belief (αἰσθητά; δοξαστά), and likenesses or images (εἰκασία). However, Archytas' pseudepigraphon not only differs from Brotinus by explicitly mentioning the divided line (γραμμὴν διχα τετραμμένην) and postulating that the segments are divided in equal ratios, it also utilizes the same terminology of clarity and obscurity (σαφηνεία τε καὶ ἄσαφεία) from *Republic* 509d7. The two pseudepigrapha, in effect, establish a Middle and / or Neoplatonic schema for interpreting Plato's divided line but project it into the past.

Based on a comparative analysis of Ficino's translation of Plato's divided line and other humanist translations of the same passage James Hankins has argued convincingly that Ficino "comes down firmly on the side of the Neoplatonic interpretation of this passage." Hankins also offered a comparison with Proclus' commentary to the *Republic* to make the point.²⁴ Agreeing on the whole with this assessment, I think that one can be even more precise. First, Ficino could not have known Proclus' commentary on the *Republic* when he first translated Plato's *Republic*, since Janus Lascaris (c. 1445–1535) only brought the manuscript to Florence in 1492.²⁵ Second, rather than being Proclean *sensu stricto* Ficino's interpretation and translation follows Iamblichus (although I will demonstrate below that Ficino was also interpreting the divided line in light of other works by Proclus, notably the *Platonic Theology*). The similarities between Ficino's rendering of the

²³ Iamb. *Comm. Math.* 35.27–37.2. Thesleff 1965, 36–39.

²⁴ Hankins 1986, 287–304.

²⁵ Fic. *Op.* 937. Piccolomini 1874, 401–423.

divided line and Proclus' schematic interpretation can be explained by the fact that they are both utilizing a common source, namely Iamblichus' *De communi mathematica scientia*. Here is Proclus' commentary on Euclid:

Next we should see what faculty it is that pronounces judgment in mathematics [τὸ κριτήριον τῶν μαθημάτων]. On this doctrine let us again follow the guidance of Plato. In the *Republic* he sets on one side the objects of knowledge and over against them the forms of knowing, and pairs the forms of knowing with the types of knowable things. Some things he posits as intelligibles (νοητά), others as perceptibles (αἰσθητά); and then he makes a further distinction among intelligibles between intelligibles and understandables (διανοητά), and among perceptibles between perceptibles and likenesses (εἰκαστά). To the intelligibles, the highest of the four classes, he assigns intellection (νόησιν) as its mode of knowing, to understandables understanding (διάνοια), to perceptibles belief (πίστις), and to likeness conjecture (εἰκασία).²⁶

Proclus interprets Plato's divided line in his commentary to the *Republic* as follows:

Since Plato wishes to demonstrate that the procession of beings from the One is continuous and united, he represents this continuity as a single line (γραμμῇ μιᾷ), the second segments always proceeding from the first through mutual conjunction and by way of resemblance (ὁμοιότητος), and devoid of nothing separating the beings. For this was not allowed; all things proceed from the Good and turn back to it. In any case the offspring must resemble the parents. Since the One is a being of this kind it is necessary for the offspring to be indistinct; for a family relation is continuous in unity. The cause of this continuity is the resemblance of the following segments to the leading segments. But we agree altogether that this proceeds from the One; for resemblance is a kind of unity (ἐνότης). So because of this Plato takes a single line and cuts it into two, not cutting into equal parts, but into unequal parts, that are nevertheless two.²⁷

If one compares the two pseudepigraphic texts from Brocton and Archytas that were quoted above with these two passages on the divided line from Proclus' commentaries on the *Republic* and on Euclid's *Elements*, it can be seen that although Proclus prefers to follow Plato directly and not Pythagorean sources, his indebtedness to chapter eight of *De communi mathematica scientia* is perfectly clear.²⁸ In his analysis of the criterion (κριτήριον) for mathematical judgments, he

26 Procl. *In Euc.* 1970, 10.15–27; Procl. *In Euc.* 1873, 10.15–27.

27 Procl. *In Remp.* 1.288.6–20.

28 See Mueller 1987, 334–348; O'Meara 1988, 49–59; O'Meara 1989, 164–166. Festa and van der Waerden speculated on a possible common source for Iamblichus and Proclus, but Proclus despite his different approach to the topic would have almost certainly studied Iamblichus' work, perhaps under the influence of his teacher Syrianus who (as seen below) was well

presents the Iamblichean divisions of faculties and their corresponding realities in a similar manner and terminology to Iamblichus.

There are two passages from Ficino's works that are relevant to the discussion of his debt to Iamblichus' *De communi mathematica scientia*. The first, as one would expect, is a very brief statement in his *Epitome* of the *Republic* on the divided line: "Plato follows (*sequitur*) the division of things into two *genera*, the visible and the invisible, both of which are again divided in two, namely the antecedent and the subsequent, and he makes a similar division for human perception. In this regards he follows (*sequitur*) Bro[n]tinus and Archytas, but he explains it more elegantly and extensively."²⁹ In the second, Ficino (like Proclus in his commentary on Euclid's *Elements*) responds to the aporetic conclusion of the *Theaetetus*, namely that the interlocutors are incapable of providing a definition of knowledge by explicating the schema of the divided line:

Finally once all of these have been refuted one ought to see what Plato teaches. In fact, in the sixth book of the *Republic* he imitates the Pythagoreans Bro[n]tinus and Archytas; he establishes two *genera* of things, namely the intelligible and the sensible. The former is stable and incorporeal, the latter is changeable and corporeal. He calls the way to know the former "reason," and the way to the other "sense perception," and the common notion of the former "intelligence," and of the latter "opinion." But he also divides each genus into two segments. For he wishes the intelligible to be first and secondary; in the first the ideas (that is the species and notions [*notiones*; *Op.* = *motiones*] of the divine mind), other minds, and souls are contained, in the second numbers and figures. In fact, although numbers and figures are incorporeals, however because they admit a certain division, they should not be judged of equal rank to the indivisible substances. The knowledge of the first he calls by the precise name "intellect," and of the second "intellection." He also divides the sensible in the same ratio, namely into a first and a second. In the first he places all bodies and corporeals. In the second shadows and images of bodies, whether they are visible in water or in mirrors. Plato thinks that they relate to bodies as mathematics relate to the divine. He specifically names the perception of bodies "belief" and the shadow of bodies "imagination." Thereafter he denies that there is knowledge concerning bodies, their shadows, and mathematics; instead he locates it only in the intellect of divinities, which is what he meant in this dialogue in the beginning when he proposed that knowledge and wisdom are identical. For he always testifies that wisdom is the contemplation of the divine.³⁰

versed in Pythagorean material. This point furthers corrects the previous tendencies to exaggerate Proclus' differences from Iamblichus.

29 Fic. *Op.* 1408.

30 Fic. *Op.* 1280–1281.

Ficino ignores what many ancient and modern commentators find puzzling about the divided line, namely whether the line is divided into equal or unequal segments, that is whether the text ought to be read according to one of two variants: ἀνίσα or ἄν ισά.³¹ Following the Greek of MS. Florence, Biblioteca Medicea Laurenziana, Plut. 85.09 (ἄν ισά), he translates the passage to render it as two equal segments (*duas equales sectam*).³² This is at first glance somewhat odd, since Iamblichus' *De communi mathematica scientia* is perhaps the most important source that identifies the alternative readings of the text; the unequal division of the line is attributed to Brotinus, and the equal division of the line to Archytas. However, Iamblichus in effect synthesizes both options to present conclusions that are remarkably similar to Ficino's (and Proclus'), namely that the line remains one and the same because the analogy between the segments should be understood as an emanation:

After this he cuts the line into pieces, which in truth is one line (γραμμὴν... μίαν), so that he may understand comprehension (τὸ γνωριστικόν) as one, and divides it into two according to the first differences of beings and the divisions distinguishing the two segments. But he establishes these equal differences and divisions according to their participation with ratios and ideas, and through the resemblance (ὁμοιότητα) of the participants to the participated, and for this reason there is in a certain way the same analogy in both. And again he divides each of the segments according to the same ratio, since throughout the whole the power of comprehension is of the same form with itself, and he produces its differences in terms of clarity and obscurity, and to demarcate completion and lack he points out their separation with respect to each other, according to which the secondaries alter and are inferior to the superior.³³

Ficino's circumlocutious reading of the divided line agrees with Iamblichus' conclusion that the line, although divided, remains one. Ficino formulates the divided line as an emanation flowing out from the divine, connecting us with it:

Therefore knowledge is by means of a certain reason the comprehension of divine things (*comprehensio* / Iamblichus' τὸ γνωριστικόν), residing in the intellect and emanating into reason, having been inserted into the intellect by God, and having been turned towards reason by a dialectical instructor inspired by God, reorienting reason to the intellect, and uniting the Intellect with divinity.³⁴

31 See, for instance, Brumbaugh 1952, 529–534; Lafrance 1987; Aubenque 1992, 37–44.

32 "Perinde ac si acceperis lineam in duas equales sectam portiones, et utramque rursus partem simili ratione divideris..." Plato 1491, f.291r.

33 Iamb. *Comm. Math.* 38.15–28; On this passage see Napolitano Valditara 2000, 67–69.

34 Fic. *Op.* 1281.

In his exposition of the divided line Ficino presents Plato as a follower of a Pythagorean understanding, which modern scholarship would characterize as a Neoplatonic understanding, of the cyclical process in the triad of μονή (remaining), πρόοδος (proceeding), and ἐπιστροφή (return).

Ficino is also attentive to the fact that the divided line is attributed to Pythagorean personae. He consistently uses the same terminology in the passages quoted above to interpret the *Timaeus*, the *Republic*, and the *Theaetetus*, that is Plato follows (*sequitur*) or imitates (*imitatur*) the Pythagoreans but is more eloquent in the process (*elegantius*). This is in perfect harmony with his prosopopoeic exegesis of the Platonic corpus into Pythagorean, Socratic, and Platonic personae. Walter Burkert and Holger Thesleff have concluded that these fragments, written in an archaizing Pythagorean Doric prose, probably date to the end of the second century BC – a productive period for Pythagorean pseudepigrapha.³⁵ In utilizing these fragments Iamblichus' intention, like Ficino's, is to present a unitary source for Platonism, before Plato, in Pythagorean philosophy. At times blurring the distinctions between precise Socratic and Pythagorean personae Ficino has Plato make Socrates speak on occasion in a Pythagorean register.

Archytas of Tarentum is one of the most famous ancient thinkers and mathematicians designated as Pythagorean. Known to the Renaissance through a number of ancient sources (both Greek and Latin), including biographies in the *Suda* and Diogenes Laertius, Archytas would have come to prominence for Ficino through Plato's *Letters*, not least for saving Plato from Dionysus II the tyrant of Syracuse.³⁶ Commenting on the *Seventh Letter*, in which Archytas is mentioned by name and which Ficino accepts as authentic, Ficino makes it clear that Plato learned from the Pythagoreans during his voyages to Sicily that the divine may be grasped by the intellect but that such an understanding could not be expressed in writing or speech since this truth is not conceived by way of discursive reasoning.³⁷ Here the esoteric dimension of Plato's philosophy is presented as a Pythagorean understanding that the highest objects of intellect (νοητά) are themselves ineffable and cannot be understood singularly by our discursive reasoning. Carl Huffman has recently cast light on the "shadow of Plato," or rather the Platonic tradition, in which Archytas stood, in order to study the mathematician directly and independently of later transformations.³⁸ Yet if Ficino Platonized the Pythagoreans – a tradition that goes as far back as the Old Academy – in reality the Florentine

35 The proposed chronologies for the composition of Doric pseudepigrapha has varied in recent times between the third century BC and the second century AD, while it is often thought that most of them come from a period between the first century BC (or late second century BC) and the first century AD.

36 I limit myself to citing Thesleff 1961, 8–11, 75–77, 92–96; Thesleff 1965, 2–48; Burkert 1972, 27, 78, 84, 92, 221–222, 384–389, 442–447, et passim; Huffman 2005; and Brisson 2008.

37 Fic. *Op.* 1535. On Archytas and Ficino see also Allen 1994, 48, 64–65.

38 Huffman 2005, 3–43.

thought that the Platonic field was often covered by Pythagorean shadows, but in his mind this did not prevent it from being fertile ground for thinking.

The identity of the second Pythagorean in question, Brotinus, is more obscure to us moderns. The few fragments that we now possess attributed to him were known to Ficino and his contemporaries, who utilized his pseudepigrapha fruitfully.³⁹ For instance, the interlocutors of Jacques Lefevre d'Étaples' (c. 1455–1536) *Rithmomachia* are the Pythagoreans Alcmeon, Bathillus, and Brotinus.⁴⁰ Giorgio Valla (1447–1500) cites the pseudepigrapha of Archytas and Brotinus, as does Ficino's own disciple Francesco Cattani da Diacceto (1466–1522) to argue for the possibility of a *mathesis universalis* and interpret the divided line.⁴¹ Moreover, two separate pieces of evidence seem to indicate that Renaissance humanists had access to other Greek manuscripts of Iamblichus' work than those that have survived: the lending records of the Biblioteca Marciana from 1553 record that Sebastiano Erizzo (1525–1585) borrowed a volume that contained the *De secta pythagorica*, apparently along with a now lost commentary on the work by Simplicius; Raffaello Maffei (1451–1522) mentions the existence of a similar manuscript in 1506 in the Vatican Library.⁴² A number of other humanists, such as Bessarion (1403–1472), were familiar either specifically with Brotinus or more generally with Iamblichus' *De secta pythagorica*. For instance, it seems that others also knew Ficino's translation of the work: Giovanni Pico della Mirandola (1463–1494), his erudite nephew Gianfrancesco Pico (1470–1533), Pierleone Leoni (c. 1445–1492), Angelo Poliziano (1454–1494), Nicholas Scutellius (1490–1542), and Lucas Holstenius (1596–1661).

Brotinus' fortuna, therefore, reached far from his origins in Metapontum, where he was supposedly a contemporary and disciple of Pythagoras himself. Diogenes Laertius, the *Suda*, and Iamblichus disagree as to whether he was the husband or the father of the famous Pythagorean philosopher, Theano, who had an equally murky relationship with Pythagoras and whose pseudonymous fragments also survive. Moreover, readers of Alexander of Aphrodisias' (2nd c. AD) commentary to Aristotle's *Metaphysics* would have learned that Plato followed Brotinus in stating that the Good and One are beyond being.⁴³ Similarly, readers of Proclus' teacher Syrianus' (fourth and fifth c. CE) *Commentary to the Metaphysics* would know that Brotinus declares that the supra-substantial principles of reality are "surpassing all intellect and substance in power and dignity," which is a quotation from *Republic* 509b that is voiced in the persona of Brotinus, and that "taking his start from these, the divine Plato also, in the *Letters*, in the *Republic*, and the *Parmenides*, utters the same sentiments on the topic;" and again that "the One and the Good is supra-essential (ὑπερουσίον) for Plato, for Brotinus the Py-

39 Thesleff 1961, 12, 78, 101, 104–116; Thesleff 1965, 54–56; Burkert 1972, 114.

40 Lefèvre d'Étaples 1496.

41 Valla 1501, lib. 1, cap. 6; Diacceto 1563, 165.

42 Omont 1888, 40; Hadot 1990, 295–296.

43 (Lemma: 1091b4). Alex. of Aphrod. *In Metaph.* 821.32–822.2; Thesleff 1965, 56.

thagorean, and, in a word, for all of those who have come from the school of the Pythagoreans.”⁴⁴ That is, even before Iamblichus, in the writings of Alexander of Aphrodisias and later in Syrianus, we find an account of Brotinus that agrees with the *De communi mathematica scientia* and states that the henological doctrine of Plato, central to Neoplatonic thought, of an ineffable One above Being, has a unitary source in Pythagoras’ immediate disciple. Furthermore, given that Syrianus and Alexander of Aphrodisias quote Brotinus in order to interpret Aristotle’s *Metaphysics* 1091, there are perhaps good reasons to believe that they are working from a common source.

What may seem like an odd Ficinian interpretation of Plato’s divided line turns out to be more common than one might think in Renaissance and premodern understandings of Platonism. Other important Iamblichean sources available in the Renaissance for the origins of the divided line in the pseudepigraphic works of Brotinus and Archytas are the manuscripts of Plato themselves. Although it is not present in the two principal Plato manuscripts used by Ficino (Laur. Plut. 85.09 and Laur. Plut. 59.01), there is a long marginal scholion explaining the divided line, which abridges Iamblichus’ *De communi mathematica scientia* and debates the two Greek variants indicating that the line is divided either into two equal (ἰσα) or unequal (ἄνισα) segments. So far I have not been able to identify any manuscript that includes the scholion which we know Ficino used.⁴⁵ In any case, Ficino could have made the argument for expressing the divided line in the personae of Brotinus and Archytas solely on the basis of his studies of Iamblichus’ *De secta pythagorica* without having recourse to the abridged scholion. Nonetheless, the hypothesis of another, still unknown, manuscript of Plato’s *Republic* that would have placed the Iamblichean scholion immediately under Ficino’s eyes while he read the *Republic* is worth pursuing. I have recently established that Ficino finds important reasons for identifying where Plato speaks in his own voice from the introductory scholion to Plato’s *Laws*, so I think it plausible that he could likewise have drawn on the scholion to the *Republic* for a passage where he believes Plato is speaking in a Pythagorean persona.⁴⁶

In 1959 Henri-Dominique Saffrey published Ficino’s notes to MS. Florence, Biblioteca Riccardiana 70, which contains Proclus’ *Platonic Theology*, his *Elements of Theology and Physics*, as well as Ocellus Lucanus’ *De natura universi*. In this manuscript Ficino also wrote a short four-folio treatise entitled *Proprietates vocabulorum platoniorum*, an essential part of which is an exposition of the philosophical terminology drawn from Plato’s divided line. Here Ficino resolves: “There are therefore four cognitive faculties in the soul, according to Plato and Proclus, as Iamblichus shows; on the one hand there are the two first, pertaining to the intelligible, and on

44 (Lemma: 1086b14). Syr. In *Metaph.* 165.33–166.8; Thesleff 1965, 56. Cf. Plat. *Resp.* 509b6–10. (Lemma: 1091b6). Syr. In *Metaph.* 182.30–183.21; Thesleff 1965, 56.

45 Greene *et al.* 1938, 246 (Plat. *Resp.* 510d); Hermann (ed.) 1853, xxxi–xxxii, 350–351; Ruhnken 1800, 176–179.

46 Robichaud 2014, 87–114.

the other the two secondary ones, pertaining to the sensible."⁴⁷ About the long section on the divided line Saffrey says, "Il est vrai que cette doctrine est le bien commun de tout le platonisme, et Ficin l'aura trouvée ou retrouvée dans Proclus aussi bien que dans Platon lui-même... Ficin donne lui-même sa source sous la forme d'une référence à Jamblique, que malheureusement nous n'avons pu identifier."⁴⁸ At the very least, the present article has identified Saffrey's missing source. If one accepts Saffrey's dating of the annotations, moreover, it demonstrates Ficino's use of Iamblichus' understanding of the divided line to gloss Plato and Proclus before 1463, that is before he undertook the task of translating the *Republic*, and perhaps before he finished or while he was in the process of translating the first ten Platonic dialogues that he presented to Cosimo de' Medici in 1464.⁴⁹

By determining which books Ficino had on his desk, so to speak, while interpreting Plato one can also identify which Pythagorean books the Florentine believed Plato had at hand while composing his own dialogues. Thus for Ficino Brotinus and Archytas were to Plato what Aglaophamus was to Pythagoras, namely intermediary spokespersons. For Ficino the false dating of the pseudopigrapha established early written continuities with oral philosophical and religious traditions. Brotinus may have played a double role in transmitting Pythagorean formulations not only of a *mathesis universalis* but also of a *religio universalis*. This was insofar as he also served as a direct intermediary for Orphism, since we know from a passage in the *Suda* and from Clement of Alexandria that the ancients identified him as the author of the Orphic hymn to Nature that was frequently and fondly quoted by Ficino to characterize nature's silent (ἄψοφος) emanation. Ficino never mentions the attribution of authorship to Brotinus for the Orphic hymn to Nature, but it is very likely that he would have known of it, since the passage is excerpted and transcribed in a manuscript in the hand of Angelo Poliziano, his personal friend and sometimes intellectual rival.⁵⁰ Burkert has argued that one can find in Aristotle evidence for authentic Pythagoreanism, specifically before it was co-opted by the Platonic Academy, which shows that the Pythagoreans did not espouse the Platonic χωρισμός, that is the separation between the intelligible and the sensible, between being and becoming, that is famously illustrated by the divided line.⁵¹ However, the Neoplatonic interpretation of the divided line emphatically underscores the emanative unity through all divided segments, from the ineffable supra-essential One through nature's images and shadows. There is no absolute dualism. The line, although precisely

47 "Sunt igitur potentie cognitive anime quattuor secundum Platonem et Pythagoram, ut Iamblicus ostendit; ille due prime ad intelligibile, iste due secunde ad sensibile pertinent." MS. Florence, Biblioteca Riccardiana, 70, f.3v. Saffrey 2002, 84.

48 Saffrey 2002, 90, also 84 n. 232: "Iamblicus ostendit: locum non inveni."

49 It is also S. Gentile's opinion that Ficino translated the *De secta pythagorica* very early in his philosophical career. Gentile 1990, 57–104.

50 MS. Munich, Bayerische Staatsbibliothek, cod. gr., 182, f.41r.

51 Burkert 1972, 28–52 (esp. 30–31), 230–231, et passim.

divided, remains unified. Ficino, following Iamblichus, therefore retrojects one the most central aspects of Neoplatonism, emanation, onto a Pythagorean source before Plato. Iamblichus and Ficino's understanding of Pythagoreanism is therefore – oddly enough – in agreement with Aristotle's, insofar as, to abridge the argument from 1091b of the *Metaphysics*, the Pythagoreans postulate the One as both the highest and most self-sufficient principle of unity, as well as a principle of number and an element of nature, as the ancient poets have it.⁵² Just as his divided line remains a single unit so the divisions in Ficino's progressive unfolding of the *prisca theologia* remains continuous and unitary.

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Pythagoras Refracted: The Formation of Pythagoreanism in the Early Modern Period

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1 Michel Mourgues and the emergence of the term “Pythagoreanism”

In 1712, the French scholar Michel Mourgues, (1642–1713), Jesuit at the Diocèse de S. Flour in the Auvergne and professor of rhetoric and mathematics at the University of Toulouse, published his *Plan Théologique du Pythagorisme, et des autres Sectes Sçavantes de la Grèce*, a work which he had already finished three years earlier, as is clear from the Jesuit imprimatur signed by Pierre Nicolas on October 14, 1709.¹ The dedicatory letter to Simon de La Loubère² reveals that Mourgues had conceived of the *Plan* as early as 1705. He wrote two parts, the *Plan Théologique du Pythagorisme* and the *Plan Philosophique du Pythagorisme*, of which only the former was published. The latter was never printed, but it was certainly completed, since at least La Loubère must have read most of it, as stated by Mourgues in the dedicatory letter to his mathematician colleague.³ The most likely reason why the second part of the *Plan* was never published is that Mourgues died soon after publication of the first part.

This learned Jesuit was highly esteemed in his own time, for instance by Pierre Bayle, who appreciated Mourgues' *Traité de la poésie françoise* (1684), but he is now little known. What makes his major work so important for the history and transformation of Pythagorean knowledge is that it is probably the first time that we find the term “Pythagoreanism” in the title of an early modern book. Hence the publication date of Mourgues' *Plan Théologique* marks a significant break in the long tradition of Pythagoras and his school. In 1712 it was evidently possible to unite Pythagoras' biography and his philosophical and theological teachings under a distinctive label, “Pythagoreanism”, which suggests that whatever was passed down as Pythagorean knowledge from antiquity to modern times could now be interpreted as forming a coherent system of genuine Pythagorean thinking.

1 Mourgues 1712.

2 Simon de La Loubère (1642–1729), a well-known mathematician at the Académie française, who was also famous for his precise description of his travels in Siam (present-day Thailand) in his *Du Royaume de Siam* (1693).

3 Mourgues 1712, Lettre Preliminare, III: “...du *Plan Philosophique* que vous avez déjà, Monsieur, presque tout lû, & que j'achève de mettre en état de paroître...”

At least this is what Mourgues' *Plan Théologique du Pythagorisme* and the unpublished *Plan Philosophique du Pythagorisme* seem to signal, namely that at the dawn of the eighteenth century the term "Pythagoreanism," like the labels "Platonism" or "Aristotelianism," referred to a system of Pythagorean traditions which, as we read in Mourgues' book, had the greatest impact on Plato, Aristotle, and the Middle- and Neoplatonists.⁴ Or, as the Swiss theologian, Biblical scholar and suspected Socinian Jean Le Clerc noted in his review on the *Plan Théologique du Pythagorisme* in the 1713 edition of his Amsterdam journal *Bibliothèque choisie*:

Our author believes that Pythagoreanism is the primitive and original theology and philosophy, being the source of the doctrine of all the other sects which in fact appear to be nothing more than different heresies of one religion or diverse dialects of one original language.⁵

Thus, the first thing we learn from Mourgues' *Plan* and Le Clerc's review of it is that early modern authors who referred to the Pythagorean tradition usually did not distinguish between early or ancient Pythagoreanism and Neopythagoreanism.⁶

However, once in a while we detect some critical remarks on the lack of differentiation within the transfer and reception history of Pythagorean knowledge in early modernity like those made by the Lutheran theologians Christoph August Heumann and Johann Lorenz Mosheim for example. The former criticized Thomas Stanley, author of the first history of philosophy in English language, for relying too much on Iamblichus in his intent to provide a survey on Pythagoras and his school,⁷ for Heumann considered Iamblichus more a hagiographer of Pythagoras than a reliable source of authentic Pythagorean teachings, and thus he could not accept Stanley's use of Iamblichus.⁸ Mourgues himself shared Heumann's critical view of Iamblichus to some extent, insofar as he made Iamblichus' theurgical idolatry responsible for the reception-history of a "false Platonism" and a "bad Pythagoreanism."⁹ Johann Lorenz Mosheim, on the other hand, in his

4 See O'Meara 1989; Kahn 2001.

5 Le Clerc 1713, 432: "Nôtre Auteur croit que la Pythagorisme est la Théologie & la Philosophie primitive, qui fait le fonds de la doctrine des autres sectes; qui ne sont, à l'égard de celle-là, que comme diverses Hérésies à l'égard d'une Religion; ou comme diverses dialects, par rapport à une Langue originelle." See also Mourgues 1712, Lettre Préliminaire, XVIII, a passage that Le Clerc quoted in his review; and Mourgues 1712, Lettre Préliminaire, XIX: "Il [Pythagore] ouvrit son Ecole en Italie: & la rapidité avec laquelle sa Doctrine passa la mer, & s'étendit de tous côtez, est une preuve éclatante de la supériorité de son génie. Toute la Grèce sçavante l'a reconnu pour son Maître..."

6 See Zhmud 1997, 13: Zhmud refers to two different modern research positions concerning early Pythagoreanism, one denying, the other accepting that the antique and late antique Pythagorean tradition has some authentic roots in early Pythagoreanism and hence could provide important insights into early Pythagoreanism.

7 Stanley 1655–1660.

8 Heumann 1715, 540.

9 Mourgues 1712, Lettre Préliminaire, XVI: "Et voilà, pour le dire en passant, le faux Platonisme ou le mauvais Pythagorisme des plus modernes de la Secte..."

comments on the Latin edition of Ralph Cudworth's *The True Intellectual System of the Universe*, criticized some apparent contradictions in Cudworth's interpretation of the Pythagorean monads.¹⁰ He pointed out that, only because Ecphantus, a Pythagorean philosopher of the fourth century BC, had defined monads for the first time as corporeal units or atoms, the conclusion made by Cudworth that Pythagoras himself had originally founded a monadic physical atomism must be wrong.¹¹ What Mosheim and Heumann were actually hinting at was that the Pythagorean tradition was not in itself without contradictions. Nevertheless, despite the few critical voices in the seventeenth and eighteenth centuries and despite the emergence of the historical-philological *ars critica* in early modern times, Pythagoreanism was mostly, as is obviously the case with Michel Mourgues, represented as a stringent theological and philosophical system of Pythagorean knowledge. Moreover, Pythagoreanism was thought to be the essential core of Platonism and Neoplatonism. Hence, Mourgues could argue: "It is once and for all necessary to state that Pythagoreanism and Platonism are the same thing."¹²

Secondly, we learn from the French Jesuit that he construed what he called Pythagoreanism as a blueprint of pagan philosophy and theology in order to shed light on the Church Fathers' polemics against the pagans. So Mourgues' main concern was to provide a commentary on his French translation of the Church Father Theodoret's *Graecarum affectionum curatio* (*Remedy for the diseases of the Greeks*), "the last and probably also the most complete of the numerous apologies which Greek antiquity produced,"¹³ of which the original Greek text was first edited in Heidelberg in 1592 as *Theodoretu Episkopu Kyru Ellenikon Pathematon Therapeutike*.¹⁴ Mourgues wanted to deliver background information in order to make the arguments of the Church Fathers against pagan philosophy, particularly those presented in Theodoret's *Therapeutike*, more comprehensible to his contemporaries, who he considered to be particularly ignorant and undifferentiated concerning the so-called and, as Mourgues claims, mostly misunderstood Platonism of the Church Fathers.¹⁵ He believed that this ignorance had unfortunately led to the opinion that whoever shows esteem for the Church Fathers would nowadays generally be seen with suspicion: "The right of the Church Fathers to claim our esteem is so notorious, that an actual declaration of esteem and admiration for them has almost no value among the public."¹⁶

10 Cudworth 1678.

11 Cudworth / Mosheim 1733, vol. 1, 16.

12 Mourgues 1712, Lettre Preliminaire, XV: "Il faut être averti une fois pour toutes, que le Pythagorisme & le Platonisme, est la même chose."

13 Bardenhewer 1910³, 327.

14 Theodoret of Cyrrhus 1592.

15 Mourgues 1712, Lettre Preliminaire, XII: "J'aurai souvent occasion de faire remarquer dans mes Lettres combien la réputation des Pères est nette sur l'article d'un mauvais Platonisme, qu'on leur impute..."

16 Mourgues 1712, Lettre Preliminaire, XIV: "Le droit des Pères sur notre estime est si notoire, qu'une déclaration d'estime & de vénération pour les Pères n'est presque d'aucun mérite

Thirdly, we learn that Mourgues was engaged in the scholarly discussions of his time. One of his objectives was to argue and defend the Church Fathers against the Dutch scholar Anton van Dale's (1638–1708) critique of patristic authority on the oracles of the pagans in *De oraculis veterum ethnicorum dissertationes* (1683).¹⁷ Thus, in presenting Pythagoreanism as a blueprint of pagan theology and philosophy, Mourgues obviously wanted to deliver first-hand material that would back up the Church Fathers' interpretation of the oracles of the heathens.

From this follows that the label "Pythagoreanism" functioned (1) as historical category, (2) as a coherent system of thought ascribed to Pythagoras and his school, and (3) as knowledge and argument in commentaries, for instance in commentaries on editions like Mourgues' edition of Theodoret, or within contemporary discussions, here particularly relating to the discourse on the Church Fathers' relation to the philosophy and theology of the pagans.

2 Between Judaism and Hellenism: Michel Mourgues' understanding of Pythagoreanism as being rooted in early modern "Pythagorean" knowledge

Although the appearance of the term "Pythagoreanism" on the title page of Mourgues' *Plan Théologique du Pythagorisme* without doubt signals an important shift in the history of the Pythagorean tradition, Mourgues' own understanding of Pythagoreanism was anything but new. In fact, Mourgues merely summarizes the conventional descriptions we usually find of the Pythagorean tradition in early modern times.

Based on the legendary voyages of Pythagoras, which, as most early modern accounts of the biography of Pythagoras point out, took him to the Phoenicians, Egyptians, Chaldeans, Persians, and Hebrews, voyages that, as is usually assumed, lasted more than three decades, the Pythagorean doctrines were interpreted as a systematic Greek narrative of the *lux ex oriente*.¹⁸ The famous baroque polymath Gottfried Wilhelm Leibniz even indicates that the Republic of Letters was originally a colony that Pythagoras had discovered for the very first time during his travels to the East, thus preparing and founding the "modern" invention of a research network of knowledge of any kind:

The Republic of Letters is a colony of another world which a certain adventurer of Greek origin called Pythagoras brought to us. Imitating the example of the Argonauts he was searching for new lands thus having learned in Egypt and with the Brahmins, where he stayed for a while, that there was an infinity of worlds to discover.¹⁹

auprès du public."

17 Van Dale 1683. As for Van Dale's critique see Ossa-Richardson 2013, 171 f.

18 See Neumann 2013, 98.

19 Leibniz 570–571: "La Republique des Lettres est une colonie de l'autre monde qu'un certain aventurier, Grec de nation, nommé Pythagore, y a mené du nostre. Il alloit chercher des pays nouveux à l'exemple des Argonautes, ayant appris en Egypte et chez les Brachmanes, ou il avoit esté quelque temps, qu'il a avoit une infinité de mondes à decouvrir."

Thus Pythagoras was considered a travelling genius and the first and most important mediator of the so-called oriental wisdom to the West, with a deep impact on later Greek philosophers who either followed in the steps of the voyager Pythagoras or adapted themselves to the tradition of Pythagorean philosophy and theology.²⁰

This is also the main reason why Mourgues argues, due to the generally accepted fact of the oriental origin of the *systema Pythagoricum*, that one could easily find elements of Hebrew, especially Mosaic, doctrines in the teachings of the Greek philosophers, since most of them, and particularly Pythagoras, had primarily Hebrew teachers.²¹ Numenius' characterization of Plato as the Attic Moses was, as Mourgues claims, only a concluding result of this process of transferring knowledge from the East to the West.

Through their Hebrew, but also through their Chaldean teachers, as Mourgues continues to argue, the Greek philosophers gained first-hand insight into the knowledge of the divine, human, and natural.²² Hence the French Jesuit emphasizes that Pythagoras imported the most sublime ideas from his voyage into the West, in particular those concerning the eternal and intelligible being, which he made the first principle and subject of his theology and philosophy. Like his contemporaries, for instance Pierre Bayle, Mourgues interpreted the Pythagorean theology as being ultimately a result of the influence of the *lux ex oriente*, as an enlightened counterpart to the superstitious religion and idolatry of the common Greek people.²³ Some specific parts of Pythagorean knowledge, such as the doctrine of the transmigration of the soul, were understood by Mourgues as a political stratagem designed to confirm the authority of Pythagoras, who was said to be capable of remembering the early stages of his transmigration. This and other parts of his doctrine were interpreted symbolically, metaphorically, or anagogically, rather than literally.²⁴ The political interpretation of Pythagorean metempsychosis was intended to defend it against the objections of learned scholars like those of Gerhard Johannes Vossius and Noël Regnault.²⁵

20 See for instance Naudé 1653, 203; Hornius 1655, 172 f.; Vossius 1657, 28; Stanley 1660, 4 f.; Gale 1676, Part II, 134; Budde 1706.

21 Mourgues 1712, Lettre Preliminaire, IX: "...que leurs Théologiens prétendus avoient eû les Hébreux pour leurs premiers maîtres." As regards the Jewish origin of the Pythagorean philosophy, see especially Gale 1676, 129–214. See also Wendelen 1637, for the Jewish origin of the Pythagorean tetractys.

22 Mourgues 1712, Lettre Preliminaire, X: the Egyptians, Greeks, and Romans "doivent aux Hébreux & aux Caldéens les premières connoissances des choses Divines, humaines, & naturelles."

23 Mourgues 1712, Lettre Preliminaire, XI. For Bayle, who considered the doctrine of metempsychosis a political strategy for attaining authority in order to educate the people and to fight their superstitious religious beliefs, see Bayle 1740, Part III, 747 f.

24 Neumann 2013, 75–77.

25 Vossius 1657, 29, Regnault 1734, 93–95. For the debates on metempsychosis in the 17th and 18th centuries see Zander 1999, 257 f.

Since Pythagoras was seen as the first Western philosopher to systematize and politicize the ancient oriental wisdom, “Pythagoras” became an important label in early modern times, especially in the course of the seventeenth century. His name was considered a sort of *pars pro toto* for the oriental origin of occidental wisdom, which manifested itself later in Platonism and Neoplatonism, and thus became one of the main arguments for connecting Hebrew wisdom, Greek philosophy and theology, the Christian philosophy of the Church Fathers, and “modern” science.

In connecting modern science with the Pythagorean tradition, early modern scholars contributed to the fact that the Pythagoreans were highly esteemed as a kind of Copernicans *avant la lettre*, being the first to advocate a heliocentric system.²⁶ But they were also highly valued for their mathematical knowledge, which made them extraordinarily attractive – more than other Greek philosophers – to the movement of the so-called Scientific Revolution in early modern Europe.²⁷

Because in Pythagoreanism, as understood in early modernity, mathematics had a metaphysical foundation, the label “Pythagoras” was also used as an argument for bringing theological principles into line with mathematical, scientific, and philosophical ones. Thus, arguing against Hobbes’s Democritean and Epicurean materialism, which he saw as being mainly based on mere mathematical principles, Leibniz, in his second letter to the Newtonian Samuel Clarke, referred to Pythagoras and Plato in order to point out that mathematics had to be rooted in metaphysical principles to avoid the theological and moral risks of materialistic thinking, which denied the existence of immaterial entities.²⁸

Hence, Pythagoreanism offered what Mourgues needed in order to reinstate the authority of the Church Fathers. In order to avoid the term “Platonism,” which in a mistaken form was, in Mourgues’ opinion, imputed to the Church Fathers, he chose the label “Pythagoreanism,” which was actually a new term capable of refreshing what Mourgues called the true basis of the Platonism of the Church Fathers. As a mathematician, Mourgues certainly knew that in the course of the sixteenth and seventeenth centuries the mathematical and astronomical reputation of the Pythagoreans had reached a high level due to the fact, as mentioned above, that they were considered to be Copernicans *avant la lettre*. The scientific

26 See for instance Digges 1576, Froidmont 1631, Boulliau 1645, and Zimmermann 1669.

27 For a critical survey of the label “Scientific Revolution” and its historiography see Cohen 1994; for two different surveys on the *factum* itself, see Principe 2011; Shapin 1996.

28 See for instance the Leibniz-Clarke correspondence, Leibniz’s second letter to Samuel Clarke, Leibniz 1890, VII, 355: “Mais je ne crois pas qu’on aye sujet d’ajouter que les Principes Mathématiques de la Philosophie sont opposés à ceux des Materialistes. Au contraire, ils sont les mêmes, excepté que les materialistes à l’exemple de Democrite, d’Epicure et de Hobbes, se bornent aux seuls Principes Mathématiques, et n’admettent que des corps; et que les Mathématiciens Chrétiens admettent encor des substances immatérielles. Ainsi ce ne sont pas les Principes Mathématiques (selon le sens ordinaire de ce terme) mais les Principes Métaphysiques, qu’il faut opposer à ceux des Materialistes. Pythagore, Platon et en partie Aristote, en ont eu quelque connoissance...”

reputation of the Pythagoreans, Pythagoras as paradigm of an ancient scholar and enlightened politician worthy of being imitated by the moderns (as pointed out for instance by Leibniz), and the theological and metaphysical core – the *lux ex oriente* – of the Pythagorean mathematics and physics made the label “Pythagoreanism” all the more attractive: it replaced Platonism, Hebrew Wisdom, and Egyptian or Hermetic Wisdom by simply integrating them into one single term, while at the same time associating Pythagorean knowledge with the newest trends in science and philosophy. It was now possible to use “Pythagoras” as an argument which could grab the attention of most contemporary scholars. At least this appears to be what Mourgues hoped for by using the term “Pythagoreanism” in the title of his book.

Nevertheless the coinage of the term or label “Pythagoreanism” was the result of a long process of transfer and transformation of the so-called Pythagorean tradition in early modern times, be it in editions or dissertations, or in historiographical writings, or other media of early modern knowledge transfer (for instance Bayle’s *Dictionnaire*).²⁹ Hence it was by no means merely a spontaneous act by Mourgues himself.

Prior to and at the same time as Mourgues, scholars such as Thomas Stanley, Ismael Boulliau, Leibniz, Ralph Cudworth, and others contributed to the transfer and use in argument of Pythagorean knowledge. Stanley tried to (re)construct what he called the *systema Pythagoricum*, the Pythagorean system of – universal – knowledge, which he thought to be highly adaptable to modernity. Boulliau not only published an *Astronomia philolaica*, named after the Pythagorean Philolaus, but also edited and commented on Theon of Smyrna’s *Eorum, quae in Mathematicis ad Platonis lectionem utilia sunt, expositio*. In the latter work he outlined the Pythagorean origin of the Platonic conception of mathematics by referring to, amongst others, Nicomachus of Gerasa, who was seen as one of the most important Pythagorean mathematicians, and whose *Arithmetica* was first printed in Paris in 1538.³⁰ Leibniz referred to Pythagorean knowledge in different ways, utilizing its descriptive, theoretical, and “modern” potentials; his most famous reference to Pythagorean knowledge can be seen in his monadology.³¹ Ralph Cudworth interpreted Pythagorean knowledge as a welcome opportunity to proclaim a combination of Cartesian natural philosophy and Hermetic metaphysical theology, thus replacing both of them with a ancient and at the same time modern philosophy in conformity with Christian theology.³²

From this follows that there were different ways of relating to and using the labels “Pythagoras,” “Pythagorean,” and “Pythagoreanism.” Depending on which aspect of Pythagorean knowledge was to be used in argument, even modern

29 For the early modern systematization of Pythagorean knowledge in different media and text genres, see Neumann 2013, 110–149.

30 Theon of Smyrna 1644; Nicomachus of Gerasa 1538.

31 See Neumann 2013, 159–259.

32 See Neumann 2011, 627–640.

scholars who represented opposed world-views could be referred to by using the same label, namely “Pythagorean” or “Pythagoras.”

3 Pythagoras Refracted: Newton, Leibniz, and Pythagoreanism

In 1748 the Scottish Newtonian, professor of mathematics, and member of the Royal Society Colin Maclaurin published *An Account of Sir Isaac Newton's Philosophical Discoveries*. In his account of Newton's discoveries, Maclaurin refers to Pythagoras and the Pythagoreans as forerunners of Newton, or, the other way round, interprets Newton as a modern Pythagoras or Pythagorean. He ascribes to Pythagoras and the Pythagoreans an extraordinary knowledge of astronomy and natural philosophy, a knowledge they had described in mathematical proportions. As Maclaurin maintains, the Pythagorean approach to astronomy and natural philosophy appeared to be remarkably independent of sensual impressions as well as of the prejudices of the common people: “One must have got over many difficulties from sense as well as from the religious prejudices that prevailed in those days.”³³

In the course of his argumentation, Maclaurin declared reason – being independent of more or less deceptive sensual impressions – and criticism of religious prejudices as conditions of scientific progress. Hence these conditions of scientific progress must have already been fulfilled in ancient times, from which follows that the historian's gaze into the past could reveal plenty of “modern” truths that had already been discovered by ancient philosophers. Consequently, these truths must by necessity be “agreeable to modern discoveries,” as Maclaurin puts it.³⁴ Now Maclaurin tries to exemplify the close relation between ancient and modern science by emphasizing the affinity between the Pythagorean doctrine of the harmony of the spheres and Newton's determination of the “gravitation of celestial bodies:”

A musical chord gives the same notes as one double in length, when the tension or force with which the latter is stretched is quadruple: and the gravity of a planet is quadruple of the gravity of a planet at a double distance. In general, that any musical chord may become unison to a lesser chord of the same kind, its tension must be increased in the same proportion as the square of its length is greater; and that the gravity of a planet may become equal to the gravity of another planet nearer to the sun, it must be increased in proportion as the square of its distance from the sun is greater. If therefore we should suppose musical chords extended from the sun to each planet, that all these chords might become unison, it would be requisite to increase or diminish their tension in the same proportions as would be sufficient to render the gravities of the planets equal. And

33 Maclaurin 1748, 33.

34 Ibid., 32.

from the similitude of those proportions, the celebrated doctrine of the harmony of the spheres is supposed to have been derived.³⁵

Since Maclaurin assumed the Pythagorean doctrine of the harmony of the spheres to have been consistent with the mathematical explication of the forces governing the relations between the planets, he was convinced that Pythagoras already had knowledge of the laws of gravitation. From this perspective Pythagoras became a Presocratic Newton, and Newton a modern Pythagoras, the modern heir of Pythagorean mathematics, astronomy, and natural philosophy.

In the same year, when Maclaurin published his *Account of Sir Isaac Newton's Philosophical Discoveries*, a lesser known adherent of Leibniz and Christian Wolff, Andreas Clavius from Celle, released his *Bericht von dem gefährlichen Vorurtheile, worin die Lehre von den Elementen der Körper zu diesen Zeiten geraten ist (Account of the Dangerous Prejudice with which the Doctrine of the Elements of the Bodies is Seen Nowadays)*.³⁶ In his *Bericht*, Clavius claims that Leibniz was responsible for the reformation and renewal of a long forgotten ancient idea, a treasure of ancient wisdom ("Kleinod der uhralten Weltweisheit"): the monadology, which had long fallen into oblivion or had simply been ignored.³⁷ Clavius's text referred to the prize question announced by the Berlin Royal Prussian Academy of Sciences in 1746, which asked whether the theory of the monads was capable of explaining the physical phenomena in the world or not. Shortly after the announcement, a member of the Academy, the famous mathematician Leonhard Euler, anonymously published a provocative attack on the Leibnitian and Wolffian doctrine of monads.³⁸ Clavius, in his *Bericht*, tried to argue against Euler and Euler's Newtonian background. By interpreting the Leibnitian monadology as the restoration of a theologically and philosophically crucial theory of genuinely ancient origin, Clavius referred to a notion of truth which in ancient times had still been originally pure and essential, while, in the course of time, at the latest from Aristotle onwards, as Clavius says, it became more and more corrupted and forgotten. Clavius emphasized that it was the task of the modern enlightenment to release the ancient wisdom and truth from its historical corruptions and oblivion. But only Leibniz and, in part, Wolff had fulfilled this task by renewing the Pythagorean doctrine of the monads. For this reason, Clavius had already called Leibniz the German Pythagoras in a book published in 1740.³⁹ When in 1746 Clavius participated in the prize question announced by the Berlin Academy, he even sent three articles all of them arguing in favour of the scientific value of the Leibnitian monadology and against Newtonian natural philosophy. In his first attempt, only

35 Maclaurin 1748, 32–33.

36 Clavius 1748. For Clavius see Neumann 2013, 452 f.

37 Clavius 1748, 1.

38 Euler 1746.

39 Clavius 1740, Dedicatory Letter to George II, where he calls Leibniz "Germaniae Pythagoram & Socratem, philosophiae instauratorem."

preserved in manuscript, he once again affirms the Pythagorean origin of the new “modern” monadology of Leibniz and makes Leibniz a modern Pythagoras.⁴⁰

Thus, contrary to Maclaurin’s Newtonian approach to Pythagoreanism, Clavius used the label “Pythagoras” to dignify the metaphysical concept of the Leibnizian monadology. Since Leibniz’s theory of monads offers an explanation of physical phenomena which is not consistent with Newtonianism, we find the label “Pythagorean” attached to theories that are opposed to each other, and indeed were even directly confronted with each other within the scientific, theological, and philosophical discussions of the eighteenth century.

Consequently, Pythagoreanism could be and was refracted in different directions, which shows all the more the importance it gained in the course of the seventeenth and eighteenth centuries as a political, scientific, philosophical, and theological label and argument.

4 Conclusion

In his *Plan Théologique du Pythagorisme, et des autres Sectes Sçavantes de la Grèce*, published in 1712, the French Jesuit Michel Mourgues used, probably for the first time, the term “Pythagoreanism.” Pythagoreanism served as a historical category, as a specific coherent system of ideas to which scholars could refer and relate, and as an argument used within the communicative structure of the early modern Republic of Letters, that is within the publications, letters, debates, and discussions of the seventeenth and eighteenth centuries.

Mourgues may have been the first to apply the term “Pythagoreanism” in the title of an early modern book, but in doing so he was only summarizing a long process in which, in the early modern period, Pythagorean knowledge established itself as an important system of reference. Within this reference system, Pythagoras played the role of a travelling genius who was the first to transfer the *lux ex oriente* systematically to the West. Thus the term “Pythagoreanism” simply unified oriental wisdom, especially Hebrew wisdom, as well as the later development of the Pythagorean tradition in Platonism and Neoplatonism. For Mourgues, Pythagoreanism was identical with Platonism, but a Platonism purged of the common misunderstandings imputed to the Platonic aspects of the Church Fathers’ teachings.

As we have seen, the labels “Pythagoras,” “Pythagorean” and “Pythagoreanism” could nonetheless be attached to the proponents of quite different, even opposed and contrary scientific theories such as those of Newton and Leibniz. In this specific context these labels were thought to elevate the scholars and the ideas to which they were attached through a particular historical exaltation.

40 Clavius 1747, but see the edition of the text in Neumann 2013, 510: “Monadologia, omnium scientiarum fundamentum, vel summa continet scientiarum mysteria, de quibus Pythagoras, Socrates, Plato, parum aut nihil publice proponendum statuerunt. Leibnitius Monadologiam oblivioni traditam in lucem iterum protraxit.”

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Appendix:
Three Texts on Pythagorean Way of Life

Pythagoras, the Wandering Ascetic: A Reconstruction of the *Life of Pythagoras* According to al-Mubashshir Ibn Fātik and Ibn Abī Uṣaybi'a*

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1 The Medical History of Ibn Abī Uṣaybi'a and Its Sources

In 1882, the German Orientalist August Friedrich Müller published in Cairo, under the pseudonym of Imru' al-Qays b. al-Ṭaḥḥān¹, the *'Uyūn al-anbā' fī ṭabaqāt al-aṭibbā'* ("Sources² of the Information on the Generations of Physicians" [hereafter: "*Generations of Physicians*") written by Ibn Abī Uṣaybi'a (Damascus, 1203–1270). A reprint immediately followed, this time in Königsberg and under his real name, after Müller realized that the volume printed in Cairo lacked the notes and critical apparatus which he had prepared.³ This second edition consisted of a reprint of the first two volumes with the addition of a third volume containing several introductions and copious annotation.

Ibn Abī Uṣaybi'a studied medicine as a youth, and he pursued his quest for knowledge throughout his life, resulting in the composition of two versions (at twenty-five years of interval) of what should be considered one of the earliest dictionary of medical authorities.⁴ Heir to a family of physicians, he claimed descent from the Arab tribe of the Bānū Khazraj and developed an interest for the history

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1 Müller 1880–1882 [published under the pseudonym Imru' al-Qays b. al-Ṭaḥḥān]. The name was created in reference to one of the greatest Arabic poet (Imru' al-Qays, who lived during the first half of the 6th c. AD) and juxtaposed to the translation of Müller (the "miller") into Arabic (ṭaḥḥān).

2 *'Uyūn*, plural of *'ayn* (an "eye" but also "a spring, a source") may refer to "the best, the essential," but because Ibn Abī Uṣaybi'a tends to give the sources he used to compile his encyclopaedia, I have opted for "sources."

3 Müller 1884 [published under the name Friedrich August Müller] (hereafter: Müller/Lesarten). The critical apparatus for the chapter on Pythagoras established by Müller is to be found in this additional volume (Müller/Lesarten, 6–8).

4 On these two recensions, see the introduction to the Königsberg edition by Müller 1884, xvi–xxi, and the detailed entry on Ibn Abī Uṣaybi'a in *El2*, vol. 3, 693–694 [J. Vernet]. Müller and Vernet differ on the date of composition of the first recension: 1242 according to Vernet, 1245 according to Müller. The two recensions differ in length and in the addition of new material gathered in the course of the author's continuous readings.

of medicine among the Arabs and the other “nations,” studying the roots of its knowledge and diffusion. His father, uncle and grandfather all held high-ranking positions in Cairo and Damascus hospitals during the Ayyubid period, starting with his grandfather who had been one of Saladin’s (r. 1169–1193) personal physicians.⁵

The *Generations of Physicians* is composed as a dictionary of surnames, organized geographically and chronologically. In fifteen chapters and almost four hundred biographies, Ibn Abī Uṣaybi‘a presents his reader with a full history of medicine as it was known up to his age. The work was dedicated to Abū al-Ḥasan Ibn Ghazāl Ibn Abī Sa‘īd (d. 1250), a vizier of the Ayyubid court in Damascus who was himself a physician.⁶ In his introduction, Ibn Abī Uṣaybi‘a addresses the different theories of the invention of medicine. Conscious of the difficulty of the task, he refers primarily to Galen’s *Commentary on the Hippocratic Oath* to underline the fact that the early Greek physicians themselves had not reached any agreement on the origin of medicine.⁷ Familiar with the works of Hippocrates and Galen, of which numerous Arabic translations were available⁸, Ibn Abī Uṣaybi‘a mentions the legends about Asclepius and the existence of a family or a caste known as the Asclepiads who claimed descent from his lineage, showing a good knowledge of both Galen’s *De Sectis* and of Hippocrates’ pseudepigraphic *Letters*.⁹ Ibn Abī Uṣaybi‘a shows a degree of familiarity with historical and geographical elements concerning the ancient past of Alexandria, Pergamon, or Rome, and his capacity to render Greek names in correct Arabic transliterations is rare enough in his epoch – especially for a man who was not himself a translator – to be highlighted. In the chapter on Pythagoras, copying from al-Mubashshir ibn Fātik, Ibn Abī Uṣaybi‘a reports the (correct) identification of the ancient Heliopolis with the district of ‘Ayn al-Shams in Cairo where he and his father and uncle reportedly

5 A vivid description of the role of his uncle is given by Ibn Abī Uṣaybi‘a throughout his own autobiographical notes in *The Generations of Physicians*. See Leclerc 1870, vol. 2, 187–188, and the extensive research on Ibn Abī Uṣaybi‘a’s biography by Anawati 1985.

6 According to Steinschneider, quoted by M. Plessner in his annotation to the draft translation of the minor recension of *The Generations of Physicians* prepared by L. Kopf in 1971 (unpublished except for a digital version by Roger Pearse available at: http://www.tertullian.org/fathers/ibn_abi_usaibia_01.htm#FN16), he was a Samaritan Jew who had converted to Islam. Some of the themes developed by Ibn Abī Uṣaybi‘a in his introduction find an echo in Samaritan literature, such as the role given to Enoch, considered as the Hebrew equivalent of Hermes, or the reference to a *Book of Cures* sent by God to Moses.

7 The fragments of this text have been studied by Rosenthal 1956. The attribution to Galen now seems accepted by Jouanna 2012, 263, n.7.

8 See the list of works by Hippocrates and Galen translated by Ḥunayn ibn Ishāq in his *Risāla Ḥunayn ibn Ishāq ilā ‘Alī b. Yahyā fī ḍikr mā turjima min kutub Jālīnūs bi-‘ilmihī wa-ba‘ḍ mā lam yutarjam*, edited by Bergsträsser 1925. New edition by Mohaghegh 2001. Galen and Hippocrates are each reserved a full chapter in Ibn Abī Uṣaybi‘a’s medical history.

9 Both texts were available in Arabic translations. The first was translated in his youth by Ḥunayn ibn Ishāq under the title *Fī Firaq al-ṭibb li-l-muta‘allimīn* (ed. Sālim 1977). An edition of a ninth-century translation of the *Pseudo-Hippocratic Letters* is in preparation by E. Cottrell, forthcoming.

exercised medicine (see *infra*, translation of the Arabic Life of Pythagoras [hereafter: Ar.], Ar. IX.5).

The Sources used for the Chapter on Pythagoras

A conscientious scholar, Ibn Abī Uṣaybi'a mentions his sources, most often at the beginning of the quotation, or even by framing the quote with a reference both at beginning and end. In the chapter on Pythagoras, four sources are enumerated: Ṣā'id al-Andalusī [b. Almeria, 1029, d. Toledo, 1070]¹⁰; Porphyry [b. Tyre, 234, d. Rome, about 305?]¹¹; al-Mubashshir ibn Fātik [d. Cairo, 1087?]¹²; a "Plutarch" about whom no further specification is provided.¹³

1 Ṣā'id al-Andalusī

The insertion of chapters on Empedocles and Pythagoras in a book on the history of medicine is somewhat surprising. As a matter of fact, the information provided by Ibn Abī Uṣaybi'a on Empedocles in a very short entry (I,36–37 Müller / I,230–231 al-Najjār), placed directly before his longer entry on Pythagoras, does not refer to his medical theories. The Empedocles entry immediately follows a list of "philosophers" apparently taken from notes by Iṣḥāq b. Ḥunayn (d. 910) where Empedocles appears between Theon [of Smyrna] and Euclides (sic).¹⁴ The paragraph on Empedocles is entirely taken – with the exception of a short bibliography consisting of two titles – from Ṣā'id al-Andalusī's *Ṭabaqāt al-umam* ("The Ranks of the Nations"), where it formed part of a chapter on the sciences developed within the Greek "nation."¹⁵ However, the doctrine attributed by the Andalusian author to Empedocles is reduced to some unorthodox beliefs about God's attributes and

10 On him, see *El2*, vol. 8, 867–868, s. v. "Ṣā'id al-Andalusī" [G. Martinez-Gros].

11 See the entry "Porphyre de Tyr" in *DPhA*, vol. 5/a, 1289–1325 [R. Goulet *et al.*], which contains the biographical and bibliographical introduction to specialized subsections by a number of specialists (*loc.cit.*, 1326–1468).

12 On him, see E. Cottrell, "al-Mubashshir ibn Fātik," in: Lagerlund 2011, vol. 1, 815–818.

13 An Arabic translation of the doxographical text known as the Pseudo-Plutarch's *Opinions of the Philosophers* was produced by the late ninth-century Christian Qusṭā b. Lūqā (d. in Armenia about 912, see *El2*, vol. 5, 529–530, s. v. "Qusṭā b. Lūqā" [sic, sc. Kūṣṭā] [D. Hill]). The translation of Qusṭā is faithful to the original – which should be considered as the epitome of the Pseudo-Plutarch and not as the larger collection by Aëtius from which it was drawn – according to Mansfeld / Runia 1997, 154. The Greek and Arabic versions of the Pseudo-Plutarch do not contain biographical information on the authors quoted, while the paragraph quoted by Ibn Abī Uṣaybi'a (see *infra*, Ar. XXI) and Ibn al-Nadīm on the authority of this "Plutarch" is of a bibliographical nature.

14 Ibn Abī Uṣaybi'a, *Ṭabaqāt al-aʿibbā'*, I, 36 Müller / I,228–229 al-Najjār (the new critical edition by 'Amir al-Najjār, Cairo 2001, does not entirely replace Müller and Müller / Lesarten).

15 The old edition of Cheikh 1912, should now be replaced with that by Bū 'Alwān 1985 or with the critical edition by Jamšīdnezhad Avval 1998. For my translation below, I relied on Müller's text (after verification of the parallel text, to which Ibn Abī Uṣaybi'a makes occasionally minor corrections). A French translation was given by Blachère 1935. The English translation by Salem / Kumar 1991 should be used with caution. For the relevant extract, a better English translation is provided by Rosenthal 1975, 39–41.

the destiny of the sinful souls and their return (*al-ma'ād*), which seem inspired by an Islamic version of Hermeticism and Neopythagoreanism more than related to anything genuinely Empedoclean.¹⁶ As was already noted by Daniel De Smet, the widespread confusion between Empedocles and Proclus in Arabic sources (the ducti of both names being close enough) and the vagueness of the doctrine make it hard to draw a conclusion on the texts that were available to the author of this doxographical extract.¹⁷

Right after the paragraph on Empedocles comes the rather long entry on Pythagoras (I, 37–43 Müller / I, 231–245 al-Najjār). It is from Ṣā'id al-Andalusī again that Ibn Abī Uṣaybi'a copied the first paragraph of his entry on Pythagoras (see *infra*, Ar. II). The confused entry by Ṣā'id al-Andalusī on Pythagoras places him “long after” Empedocles (*sic*).¹⁸ His education in wisdom and the sciences is described as the result of his encounter with the Solomon's disciples (for wisdom) and with the Egyptians (for the sciences). Later, on his return from Egypt, he had introduced them in Greece. Furthermore, he is credited with the discovery through his own mental capacities of the science of harmonics, defined as the relations of numbers and musical tones, and with the claim he had reached this level through prophetic light.¹⁹ A comparison of Pythagoras' theory of “return” (i. e. metempsychosis?) with Empedocles' own doctrine is given, concluding with their doctrinal proximity.²⁰ Allusions to Pythagorean ethics and teachings on the soul's purification are finally added, in terms reminiscent of both Porphyry's *Life of Pythagoras* (hereafter: *VP* with indication of the paragraph and when necessary-

16 The little-known Muḥammad ibn 'Abdallāh ibn Masarra, an Andalusian ascetic (and perhaps a Shi'ite) is mentioned by Ṣā'id al-Andalusī as a proponent of the “Empedoclean” doctrine which is sketched in two sentences. On him and his beliefs, see Stroumsa / Sviri 2009. According to the report, Empedocles held a doctrine of the divine attributes where these are united in the One, which remains unattainable. The Godhead would thus be above any attribute, and free from increase and decrease. Barhebraeus, who knew the works of Ṣā'id al-Andalusī, adds to his own cursory entry on Empedocles (*Muḥtaṣar al-duwal*, 30–31 Ṣalḥānī²) that the same doctrine was advocated already by the prophet Salomon, son of David, in the book he composed under the name of *Qohelet* (i. e. the *Ecclesiastes*). Barhebraeus (or his source) compares this doctrine of attributes to that of Sabellius (*Muḥtaṣar al-duwal*, 75 Ṣalḥānī²).

17 De Smet 1999, 11–12. Moreover, the possibility that the source used by Ṣā'id al-Andalusī was either Abū al-Ḥasan al-ʿĀmirī, the latter's source (a version of the Pseudo-Ammonius' *ʿĀrā' al-falasifa* larger than the one we possess today but which was known to al-ʿĀmirī) or the lost *Ṣiḥwān al-ḥikma* points to the fact Ibn Abī Uṣaybi'a is providing here a second-hand extract of which he probably had no precise understanding. For De Smet's analysis of Abū al-Ḥasan al-ʿĀmirī's report on Empedocles and its parallels in medieval Arabic literature, see *loc. cit.*, 31–33, 38–58.

18 Two sources probably known to Ṣā'id al-Andalusī have doxographical reports on Empedocles and Pythagoras in this very chronological order: the Pseudo-Aristotelian *Theology* and al-ʿĀmirī. See further De Smet, *loc. cit.*, 28–32.

19 De Smet (*loc. cit.*, 43–44) gives exhaustive references to the sources where the theme of a (Biblical) wisdom attained (or stolen) by the Greek philosophers was developed.

20 Shortly afterwards, Ṣā'id al-Andalusī ascribes Socrates a quasi similar doctrine (following again al-ʿĀmirī). The full texts preserved in the Pseudo-Ammonius fragments nevertheless show important differences between the two doctrines. See Rudolph 1989, 47 [XII.20].

with page numbers and lines according to Des Places' edition) and the Pythagorean *Golden Verses*.²¹ In conclusion, Pythagoras' ability to have his soul receive (divine) graces is juxtaposed with a capacity for contemplating the spiritual substances, in a context not unfamiliar to that of Porphyry's *Life of Pythagoras* (VP 30), where Empedocles is quoted as a witness to Pythagoras' capacities. Ibn Abī Uṣaybi'a gives a precise indication for the end of quote from Ṣā'id al-Andalusī.

2 Porphyry

The second author mentioned by Ibn Abī Uṣaybi'a is Porphyry. Oddly, already before the beginning of the extract cited as copied from "Book one" of Porphyry's *Philosophical History*, we find three additional paragraphs (see Ar. III–IV–V) without any indication of a source, and for which the sole Greek parallels known can be found in the *Life of Pythagoras* by the same Porphyry. These same paragraphs appear – with some important differences that will now be discussed – at the very beginning of al-Mubashshir Ibn Fātik's entry on Pythagoras, without any mention of a source. Moreover, these paragraphs are followed in both authors by the Pythagorean symbolae (see Ar. VI), but in the case of Ibn Abī Uṣaybi'a, after the indication of the *Philosophical History* as a source (see infra, part 2, "Concordance").

Before we return to Ibn Fātik and his own knowledge of the life of Pythagoras, we will detail the main differences between Ar. III–IV–V in Ibn Fātik's and Ibn Abī Uṣaybi'a's entries.²² Ar. III is almost identical in both, with the exception of the introductory words: "and another one said (*wa ḍakara ḡayruhu*)," in Ibn Abī Uṣaybi'a, which should be understood as a normal transition after the end of the quotation from Ṣā'id al-Andalusī and a shift from source, while Ibn Fātik reads "and they said (*wa ḍakarū*)," which is reminiscent of Porphyry's style in the *Life of Pythagoras* as we know it from the Greek manuscripts and elsewhere in the chapter on Pythagoras in Ibn Fātik (which is believed to be taken from the *Philosophical History*, as will be explained shortly).²³ The case of Ar. IV, corresponding to

21 Ṣā'id al-Andalusī's extract shows a parallel with Abū al-Ḥasan al-ʿĀmirī (see IV.4–7 in Rowson 1988, 82 (Ar.) / 83 (tr.)). These paragraphs in turn recall a more extensive fragment of the Pseudo-Ammonius known to al-Bīrūnī, where a possible reference to a Neoplatonic interpretation of the *Golden Verses* (vv. 47–53; 69–71) is to be found. The parallel extracts as they can be read in the unicum manuscript of the Pseudo-Ammonius' *ʿArā' al-falāsifa* (fol. 121r9–13) and in al-Bīrūnī's *India* are given by Ziai 1976, 185–202, who was the first to notice the possibility of a larger "Pseudo-Ammonius" source known to al-Bīrūnī and to al-Shahrastānī.

22 In the following translation (infra, "section 3." of the present article), I have added between brackets the parts of the text which are preserved in Ibn Fātik but not in Ibn Abī Uṣaybi'a, who was at times willing to abbreviate his source (especially in the "sayings" section of the chapter). I have not mentioned in the footnotes or in the additional notes the minor stylistic or lexical differences in the two versions and the manuscripts, as these will be mentioned in the apparatus of the planned on-line publication of the Arabic text.

23 We should keep in mind that very little is known of the transmission of this text which ends abruptly with "historousi...", see Des Places 1982, 18–27 and Id. 1981, 175–181. Des Places 1982,

VP 34–35, is slightly more complicated: Ibn Abī Uṣaybi'a provides a full version, while Ibn Fātik has seemingly summarized the text in two sentences, in what could be a sign of his desire to avoid the contents, either because of complicated botanical words in the text or for another reason, related to the interdiction made by the Fatimid caliph al-Ḥakīm against the consumption of a plant mentioned in the recipe, the mallow.²⁴

Another difficulty lies in the fact that Ibn Fātik does not mention his source, while Ibn Abī Uṣaybi'a does, but only after three paragraphs for which we know that the source must also have been Porphyry. A possible explanation would be that of the textual transmission, if a careless copyist wrongly inserted a marginal note where the source was identified three paragraphs after the place it belonged to. The fact that Ibn Abī Uṣaybi'a introduces the source shortly *before* the symbolae (which also occur in Ibn Fātik at the same place, but without indication of a source) seems to point to the fact that it is in the margins of this paragraph that the source was indicated, at least in some copies of Ibn Fātik. This seems confirmed by the fact al-Shahrazūrī gives the reference to Porphyry immediately *after* the symbolae, introducing a short sentence corresponding to VP 33 + 39.²⁵ What follows, Ar. V, is identical in Ibn Fātik and Ibn Abī Uṣaybi'a. It seems likely that both Ibn Abī Uṣaybi'a and al-Shahrazūrī had access to better manuscripts of Ibn Fātik or that they used copies which contained additional material, possibly in the form of annotations.

A closer examination of Ar. III shows that it consists of parallels to the Porphyrian text, which here seems epitomized and hardly understood, possibly as the result of the use of an intermediary source or a sketchy summary of a number of elements echoing both the *Life of Pythagoras* (VP 7) and the *Golden Verses* (vv. 10–11; 13–14; 18–19), while Ar. IV is more strictly parallel to *Life of Pythagoras* (VP 34–35), with a few minor differences showing that the text was probably not

18, refers to Schenkl's description of the Bodleian manuscript Bodleianus Auct. T. 4. 14 (misc. gr. 251), fol. 171r–185v. Schenkl considered it to date from the end of the 11th or early 12th century; it preserves the best tradition of the VP known today. Schenkl suggested to ascribe the scholia on the VP to Arethas of Caesarea (ed. and tr. in Des Places 1982, 34/35).

24 Another author who made extensive use of Ibn Fātik's *Choicest Maxims* was Shams al-Dīn al-Shahrazūrī (d. after 1287). The fact that he preserves the recipes in his entry on Pythagoras would show that either Ibn Fātik's manuscripts bore them at an initial stage or that he found them in Ibn Abī Uṣaybi'a (from whom he does indeed borrow elsewhere without acknowledgement). In the first alternative, the paragraph could have been left aside by the translator and for this reason ended up in the margins and was eventually copied where we find it, directly at the beginning of the manuscript. Supporting this hypothesis is the fact that VP 34 reappears later in Ibn Fātik, in an extremely abbreviated version as well, but in a more coherent place, forming a paragraph with a sentence which may be found in VP 36. See *infra*, part 2, "Concordance" and for al-Shahrazūrī's use of the text, part 3, introd. and Ar. IV.

25 Al-Shahrazūrī, *Nuzhat*, 89.11 Abū Shuwayrib, identifies the source as "*Furfuriyūs fī ta'riḥihi*" ("Porphyry in his *History / Chronicle*"). On this title, wrongly interpreted by earlier scholars as the trace of an independent *Chronicle*, see Croke 1983. Jacoby's mistake was probably made under the influence of his Karl Müller's *Fragmenta historicorum graecorum*, where it also appears.

copied from the *VP* as we know it.²⁶ Ar. IV consists of the recipes of the *alima* and *adipsa* foods, which Demeter was said to have taught Heracles before his crossing of the Libyan desert.²⁷ These recipes, in which most of the ingredients of the *kykeon* are to be found, were supposedly prepared by Pythagoras before his long fasting retreats in the *adyta*. If Ar. III is somehow related to Ṣā'id al-Andalusī's cursory summary of Pythagorean doctrines, Ar. IV is almost unrelated to what comes before and after, although health may be seen as a link between Ar. IV and V, since both paragraphs deal with a diet and some cures. Ar. V consists of a combination of *VP* 33 + 39 (and perhaps 30), possibly pointing to a different redaction of the chapter on Pythagoras in the *Philosophical History*. These paragraphs are therefore given as an introduction to the Pythagoras chapter in Ibn Fātik, directly before a biography which shows, unlike the beginning of the chapter, a very good coherence in its organisation. In turn, the knowledge of the recipes of *VP* 34 by al-Shahrazūrī could be an indication that he either had access to a copy of Ibn Fātik preserving the full text, as did Ibn Abī Uṣaybi'a, or that he used the latter.²⁸

The importance given to the recipes by Ibn Abī Uṣaybi'a, who decided to keep the odd organisation of the beginning of the Pythagoras entry in Ibn Fātik rather than inserting the recipes later in the text, at the place where they seem to have been originally, is surprising but may be explained by his interest in medicine. The insertion of an entry on Pythagoras in a history of medicine may have been justified by the allusions to the cures and the special recipes, and their enumeration of the plants used to prepare the food to be taken before spiritual retreats. Pythagoras' knowledge of botany is reminiscent of Pliny's reference in his *Natural History* (19.94), to a *Book on Squills* by the philosopher.

Ibn Abī Uṣaybi'a's interest in botany is well-attested, and the insertion of material directly related to medicine may also be the result of his own interest for such information. He left for us in the *Generations of Physicians* a description of his excursions with the famous author of a commentary on Dioscorides, Ibn al-Bayṭār, whom he met while the latter was residing in Damascus (after 1227) at the time the Andalusian scholar was engaged in the writing of his great treatise of pharmacopoeia, the *Jamī' li-mufradāt al-adwiyā wa-l-aḡdiyyā* ("Compendium on

26 The comparison of the Greek and Arabic texts shows that the Arabic text preserves the mention of "hyssop-seeds" in the recipe for the *adipson*, a plant which is missing from the Greek text as known from the manuscripts of Porphyry's *Life of Pythagoras*. The plants names in this paragraph are usually given through a simple transliteration of the Syriac equivalent (which in most cases is a loan-word from Greek: almost all the plant names of Ar. IV = *VP* 34, are to be found in Bar Bahlul's *Syriac-Arabic Dictionary* [cf. Duval 1888–1901]) and not according to the Arabic terminology. This practice reflects that of the early translations and would point to a translator who was neither an Arab nor a botanist. On Bar Bahlul (fl. 10th c.), see Endress 2001, 165–166.

27 Porphyry seems to be willing to establish some relation between Pythagoras and the Eleusinian Mysteries.

28 The recipes appear in al-Shahrazūrī (94.12–18 Abū Shuwayrib) who copied extensively from Ibn Fātik in his *Nuzhat al-arwāḥ*.

Simple Drugs and Foods”).²⁹ This is an important testimony of scholarly methods at the time. One cannot escape the feeling Ibn Abī Uṣaybi’a had access to a wide range of sources which may not have all been preserved.

[Ibn al-Bayṭār] had travelled to Greece (*bilād al-aḡāriqa*) and through Asia Minor (*wa-aqsā bilād al-rūm*), and he met numerous people who knew this art [i. e. botany], from whom he took over his knowledge... The first time I met him, it was in Damascus in 633 [= 1235–1236 AD]... Later, I investigated with him Damascus’ surroundings and observed many new plants. I was reading with him his commentary on the medical pharmacopoeia of Dioscorides and I could witness his amazing erudition and the depth of his knowledge and understanding. I would take with us a number of writings on the simple drugs, such as those by Dioscorides, Galen, al-Ghafiḳī, as well as many of the same kind. He would read aloud in Greek what was written in Dioscorides, according to the corrections he had made while in Asia Minor, and then explain the rest of what Dioscorides had stated of their external characteristics, their descriptions and their properties. He did the same with Galen and what the latter stated of their characteristics, humors and properties and what the moderns had written on the same plants, pointing out their mistakes and the confusions they made...³⁰

As mentioned above, the second source quoted by Ibn Abī Uṣaybi’a is Porphyry’s *Philosophical History*, which is referred to twice in the chapter on Pythagoras. Ar. VI is introduced as an extract of “the first book³¹ (*al-maqālat al-ūlā*)” of Porphyry’s *Reports on the Philosophers, with their Stories and Sayings*³² (*fī akhbār al-falāsifa wa-qīṣāṣihim wa-ārā’ihim*), while Ar. XX is mentioned with a simple reference to Porphyry and the title of the work without specification of the excerpted book. Ar. VI gives the first of two occurrences of the Pythagorean symbolae, corresponding to VP 42 slightly abbreviated. This corresponds to the fourth paragraph of Ibn Fātik’s chapter, although the latter’s preserved manuscripts never provide the names of the sources. The second occurrence of the symbolae at Ar. XVIII, belongs to the gnomological part of Ibn Fātik’s entry. Interestingly, it is parallel to a paragraph wrongly ascribed to Socrates by the Pseudo-Majrītī with which it corresponds in detail, although in an abbreviated version (on the long quotation

29 See *EI2*, vol. 3, 737, s. v. “Ibn al-Bayṭār” [J. Vernet] and *Dictionary of Scientific Biography*, vol. 1, 538–539 [J. Vernet]. His *Commentary to Dioscorides’ Materia Medica* was published by Mūrad 1990. For a recent synthesis and bibliography, see Cabo González 1997, 23–39.

30 Ibn Abī Uṣaybi’a, II, 133 Müller / III, 500–501 al-Najjār.

31 *Maqāla* can be translated as “book” or more often, “chapter.” Like Greek *logos*, it stems from a root (q-w-l) conveying the notion of “speech.” Eusebius in his *Chronicle* (I, 190 Schoene = An. Gr. Par. II, 140, 5–16 Cramer) makes use of *logos* to designate the first “book” of the *Philosophical History*.

32 This lengthy title corresponds to the description of Porphyry’s *Philosophical History* by Theodoret of Cyrus (*Curatio*, II, 95 Canivet). It would have included for each philosopher a biography as well as doxographical extracts and sayings.

from al-Mubashshir ibn Fātik's *Choicest Maxims* made by Ibn Abī Uṣaybi'a, see the next section (iii) and *infra* part 2 "Concordance").³³

Ar. XX in turn, discusses the extant books ascribed to Pythagoras and comments on the pseudepigrapha ascribed to him and on their authors. The corruption of the Greek names in Ar. XX shows that it may have passed into Arabic through a number of intermediaries, and possibly through a Syriac translation from which the Arabic version may have originated. This seems confirmed by the use of (Syriac) *Illādā* for Hellas. This paragraph might have been found in Book I of the *Philosophical History* with the entry on Pythagoras or in Book IV, available in a Syriac version in tenth-century Baghdad according to Ibn al-Nadīm's testimony, and possibly later throughout the Middle Ages. The extract on the authentic Pythagorean books and the forgeries could well have appeared in an entry on Archytas (mentioned as the main editor of the genuine Pythagorean texts) or in the chapter on Plato (which was included in "book four" according to the fragments preserved in Cyril of Alexandria's *Contra Iulianum*). Ar. XX is unique to the *Generations of Physicians*.³⁴ The discovery of these fragments was announced with enthusiasm by A. Müller at the international congress of the Orientalists in Leiden in 1883, but the use of the excerpt by specialists has remained somewhat inconclusive.³⁵

3 Al-Mubashshir ibn Fātik

The third authority mentioned by Ibn Abī Uṣaybi'a is al-Mubashshir ibn Fātik (d. 1087?), a little-known author of Syrian descent who was one of the great scholars of the Fatimid court in Cairo during the first half of the eleventh century and a serious bibliophile.³⁶ His only preserved work, the *Muḥtar al-ḥikam wa-maḥasin*

33 The Pseudo-Majrītī's *Ghāyat al-ḥakim* was written in the same decade as the *Choicest Maxims* (see Vajda 1964, 90). In the final section of the *Ghāyat al-ḥakim* (414–415 Ritter ed. / 421–422 Ritter-Plessner translation), we find the symbolae ascribed to Socrates (a mistake al-Shahrastānī, who however has a much longer list of symbolae, would also make, cf. *Kitāb al-Milal / Livre des Religions et des Sectes* **872–876 Badrān / Jolivet). The Ritter edition, published in Germany in 1933, is hard to find and should be supplemented with the translation, in which Plessner offered a number of important corrections and identifications of the authorities mentioned (Ritter / Plessner 1962).

34 A first edition of the paragraph was given in Cottrell 2008, 523–555 and accompanied by a translation, which is now replaced by the one offered at the end of this article. A translation (without the Arabic text or comments) was provided by M. Rashed for Huffman 2005, 616–617.

35 Müller 1885, 2nd part, section 1, 257–280, see 270. Müller had already mentioned the paragraph on the pseudepigraphs in an article written in 1873 for the *Festschrift Bernhardt* [cf. Müller 1873]. Van den Waerden 1965, in *RE Supp.* 10, 843–864, at 862; Id. 1979, 272–273 and Rashed in Huffman 2005 (see the previous footnote) focused on the list of forgeries without contextual analysis of the fragment. Ehrman's interpretation of the text is based on a faulty translation which we cannot discuss here for lack of space (see Ehrman 2012, 109–110). See *infra*, part 3, "Additional notes" to Ar. XX.

36 In the short biography he gives on him (*Generations of Physicians*, II, 98–99 Müller / III, 400–401 al-Najjār), Ibn Abī Uṣaybi'a mentions his own access to Ibn Fātik's books in autographs

*al-kilam*³⁷ (“*The Choicest Maxims and Best Sayings*”), was used by Müller for his critical apparatus to the chapters where Ibn Abī Uṣaybi’a was explicitly quoting from Ibn Fātik, but it is only in the 1930s that this crucial source began to be studied by Franz Rosenthal, who had noticed (after Steinschneider) that it was one of the main references used by Ibn Abī Uṣaybi’a in the chapters on classical Greek history and literature.³⁸ It contained a long fragment parallel to Porphyry’s *Life of Pythagoras*, but with a different organisation and some extra material, without any mention of a source. Elsewhere in *The Choicest Maxims*, Rosenthal discovered other extracts which he suggested may have originated, directly or not, from Porphyry’s *Philosophical History*.³⁹

In an article – which was to become authoritative for later research – on Porphyry’s *Philosophical History*,⁴⁰ Rosenthal published in two synoptic columns a translation of about one third of the Arabic text given by Ibn Abī Uṣaybi’a in his chapter on Pythagoras in regard to the Greek text of Porphyry.⁴¹ He provided the reference to the paragraphs of the Greek text of Porphyry’s *Life of Pythagoras* according to the Nauck edition (VP 1, 2, 10, 2, 10, 12, 15, 16, 7, 8, 9, 18, 19, 21, 22, 21, 4, 34, 37, 54, 55, 56, 57). Following Nauck, he considered the *Life* as a part of the *Philosophical History* and he limited himself to the extracts for which parallels could be found in Porphyry’s VP. Rosenthal showed that in spite of a few translation mistakes and a different organization, the text must have indeed been that of Porphyry. Where it differed, such as in the paragraph on Pherecydes, Rosenthal suggested that the additional information might have been inserted from a chapter on Pherecydes which might have been in the *Philosophical History*. The extract on the Pythagorean books referred to above (see Ar. XX) was left aside by Rosen-

and the loss of parts of the scholar’s library. See further Rosenthal 1960–1961, 132–158, and Cottrell, “al-Mubashshir ibn Fātik,” in: Lagerlund 2011, vol. 1, 815–818.

37 The plural *kalim* for sg. *kalima* is commonly attested, unlike the form *kilam*. It is the latter, however, which should be preferred in order to respect the assonance in the title “*Muḥtar al-ḥikam fī maḥāsīn al-kilam*.” “*Kilam*” is listed among the accepted plurals by the thirteenth-century lexicographer Ibn Manẓūr in his dictionary, the *Lisān al-‘arab*, under the root k-l-m (a fully searchable version is available at <http://www.baheth.info>) as being used by the tribes of Tamīm according to the testimony of Ibn Jinnī.

38 Rosenthal 1937, 21–67. A concordance of the parallels between Ibn Fātik and Ibn Abī Uṣaybi’a was given by Id., 1960–1961, 145–147.

39 Rosenthal 1937, 36–40, cf. 36 (on Zeno); 37 (on Diagoras, who might have immediately followed the entry on Zeno); 40–43 (on the Solon chapter and the anecdote about the Seven Sages and Apollo’s tripod); 47 n.3 (on Pherecydes); 43–56 (on Pythagoras). A semi-critical edition of *The Choicest Maxims* was published by ‘Abd al-Raḥmān Badawī in 1958.

40 Jacoby 1959, and Untersteiner 1963 were among the first classicists to make use of Rosenthal’s German version of Ibn Fātik’s text for their own studies.

41 Rosenthal 1937, 41–56. Rosenthal compared Ibn Abī Uṣaybi’a with parallels in Ibn Fātik and al-Shahrazūrī, two authors about whom very little was known at the time. I have shown elsewhere that al-Shahrazūrī took over almost the totality of Ibn Fātik’s *Choicest Maxims*, provided with lengthy quotations from the *Muntaḥab Ṣiḥān al-ḥikma* and al-Shahrastānī, to compile his own history of philosophy (the *Nuzhat al-arwāḥ wa Rawḍat al-afrāḥ fī ta’rīḥ al-ḥukamā’*), see Cottrell 2004–2005, 225–260.

thal because he could not find any Greek parallel.⁴² More surprisingly however, among the paragraphs that were omitted by Rosenthal, some had their equivalent in the *Life of Pythagoras* (such as VP 34). The possible reason for Rosenthal's omissions is the tradition he used for the reconstruction of the text: Müller's edition of Ibn Abī Uṣaybi'a and a couple of manuscripts of the same, two incomplete manuscripts of Ibn Fātik and three manuscripts of al-Shahrazūri representing two different recensions of the latter's text. This complicated transmission has preserved to this day a number of unsolved issues, which are primarily due to the contemporaneity of Barhebraeus (d. 1286), Ibn Abī Uṣaybi'a (d. 1270) and al-Shahrazūri (d. after 1287) and their use of common sources, sadly not all preserved. Another reason for his omissions might have been the desire to preserve a biographical coherence, in order to highlight the affinities between the Zeno, Diagoras and Pythagoras narratives. This resulted in a simple reference to the paragraph on the symbolae of VP 42 that had already been translated from Ibn Abī Uṣaybi'a by Sanguinetti.⁴³ The absence of any mention of the recipes of VP 34 remains puzzling, and Rosenthal never mentioned it in his later publications. Yet a last reason for these shortcomings might have been the date of publication of the article (1936), which could easily explain the difficulties he faced travelling within Germany and the Netherlands, where the libraries in which the manuscripts of the works he was studying were located.

Comparing the Arabic fragment on Pythagoras to the preserved Greek text of VP, we find several discrepancies. The first and most visible one lies in the organisation of the text (cf. *infra*, part 2, "Concordance"). The second, however, can be explained by the numerous misunderstandings committed by the translator.⁴⁴ In a certain number of cases though, some of the added details have parallels in other late antique sources and for this reason, the apparent disorganisation of the Arabic text should not be considered as a reordering of the text by the translator but as parallel to the original he had in his hands. What remains to be determined is whether the Syriac and Arabic translations were made from the original Porphyrian text or from quotations of it by later authors. The Christian theologians who preserved most of the fragments of the *Philosophical History* known today and engaged in refuting Porphyry could easily be suspected for the different traces of christianization in the text. But in the details, the numerous parallels with Porphyry's text can only be explained by the fact that the *Life of Pythagoras* as we know it from the Greek manuscripts differed in its organisation (and slightly in its contents) from the chapter on Pythagoras in the *Philosophical History*, unless

42 Rosenthal 1937, 56, n.1.

43 *Ibid.*, 44, n.1.

44 *Ibid.*, 39, considered the mistakes in the text as traces of a Syrian or a Syriac translator. The reason why a Middle Persian original can safely be excluded is the relatively good preservation of the Greek names.

Porphyry wrote two recensions of this work throughout his life.⁴⁵ One does not get the same impression when reading the Greek version of the *Life of Pythagoras*, with its enumeration of historians recounting often contradictory facts, and the Arabic version, which exhibits a certain coherence, notwithstanding the fact it lacks the names of the authorities that were provided in the *VP* as we know it.⁴⁶ Further parallels between our text and the gnomology used to compose the *Letter to Marcella*, i. e. the source of the *Sentences of Sextus* and of the *Puthagoreiai Gnomai*, should also be studied by specialists before any conclusion can be reached (see infra, “Additional notes” to Ar. XVII).⁴⁷

4 “Plutarch”

The Plutarch paragraph consists in a short introductory sentence giving the name of Pythagoras’s father and the place where he was born, followed by a bibliography. A parallel to the paragraph given by Ibn Abī Uṣaybi’a can be found in Ibn al-Nadīm’s⁴⁸ *Catalogue (al-Fihrist)* (I, 245.16–20 Flügel / p. 306.3–6 Tajaddod), achieved in 988. From his own testimony, we know that Ibn al-Nadīm followed what seems to have been a current practice, inserting blanks for the possibility of adding further information at a later stage, and explicitly asking future copyists to continue his task (I, 193.17 Flügel / p. 244 Tajaddod). We should therefore not be surprised to find two extra titles (see Ar. XXI) in the Plutarch paragraph of Ibn Abī Uṣaybi’a, but should refrain from ascribing the addition to either Ibn al-Nadīm or Ibn Abī Uṣaybi’a rather than to one of the copyists. We cannot determine further if Ibn Abī Uṣaybi’a used Ibn al-Nadīm or if he copied this paragraph from the latter’s source.

It might be worth noticing that the “Plutarch” extract (see infra, Ar. XXI) follows almost immediately in Ibn al-Nadīm’s *Catalogue* the famous discussion between Ibn Suwār and Ibn al-Nadīm about the “first person who discussed philosophy,” where Ibn Suwār refers to “Porphyry’s *History* (*fī kitābihi al-ta’rīḥ*)” as pointing to

45 Elements in the doxography on Plato show that Porphyry wrote the text known to the fifth-century Christian theologians only after his meeting with Plotinus (cf. Cyril of Alexandria, *Contra Iulianum*, 549AB, 916B, 553CD, 552BC = FGrH, 260 F14a, 260 F15, 260 F16, 260 F17 Jacoby, quoted by A. Ph. Segonds, “Appendice: Les Fragments de l’Histoire de la Philosophie,” in: *Des Places* 1982, 181–194, at 189–194).

46 The Arabic text does not contain any reference to the sources used.

47 A study of the Pseudo-Demophilus’ collection by Sodano 1991, 61–76, provides a useful comparison between the *Puthagoreiai Gnomai*, the *Letter to Marcella*, and the gnomology of Pythagoras according to Ibn Fātik. However, he does not refer to the gnomology in his subsequent editions of Porphyry’s *Life of Pythagoras* (Sodano 1998) or in his collection of the fragments of the *Philosophical History* (Sodano 1997).

48 “Ibn al-Nadīm” and “al-Nadīm” are both correct, as both our author and his father were Baghdadian book-sellers who may have been nicknamed “the boon-companion (*al-nadīm*)” because of their acquaintance with scholars at the court. However, medieval scholars always refer to the author of the *Fihrist* as “Ibn al-Nadīm.” Furthermore, he was primarily known as a book-seller, and not as a boon-companion. See *Elr*, vol. 9, 475–476, s. v. “Fehrest (i.)” [M. Zakeri / R. Sellheim], also available online: <http://www.iranicaonline.org/articles/fehrest>.

the fact that it was Thales who had been the first philosopher.⁴⁹ A short sentence (*al-Fihrist*, I, 245.15–16 Flügel / p. 306.2–3 Tajaddod), which in Ibn Abī Uṣaybi'a is to be found as inserted within the Plutarch quotations, connects this statement to the “Plutarch” extract: “But others said (*wa-qāla ākhirūn*) that the first to talk about philosophy was Pythagoras (*Būṭāḡūras*), who is Pythagoras son of Mnesarch (*Misārḥs* ← **M[n]isārḥus*), from the people of Samos (*Sāmīnā* ← **Sāmiyyā*) and he was the first to call philosophy by this name.”⁵⁰ What follows is a short bibliography of Pythagoras. However, the *Placita* as we know them do not contain any bibliographical indication.

Directly after the bibliography, Ibn al-Nadīm seems to follow the same source in stating that the second philosopher after Pythagoras was Socrates (*Suqrāṭ ibn Suqrāṭīs*)⁵¹, whose “genuine books” are briefly discussed. An interesting statement on the circumstances of Socrates’ death points to a certain degree of confusion in the interpretation of past events. According to the report, Socrates was killed by the Athenians because he opposed them. The king who allowed his execution is given as Artaxerxes (*wa kāna al-malik al-laḏī tawallā qīṭlahu Arṭaḥašt*), but one may wonder if the Arabic is not rendering a misunderstood “under the reign of Artaxerxes,” via a Syriac or a Middle Persian intermediacy. It is after this short report on Socrates that Ibn al-Nadīm again mentions “Plutarch” as his source, providing this time the full name of Plato (correctly given as “*Aflāṭūn ibn Ariṣṭun*,” i. e. “Plato son of Ariston”) and an etymology in which Plato’s name is interpreted metaphorically as meaning “the eloquent one.”⁵² “Plutarch” is not quoted as a source anywhere else in Ibn al-Nadīm’s *Catalogue*, but elsewhere in the chapter on phil-

49 Ibn al-Nadīm, *al-Fihrist*, 305.28–306.2 Tajaddod.

50 The change in the orthography of “Pythagoras” (now *Būṭāḡūras*) shows that Ibn al-Nadīm is here shifting sources and should be explain thus: the Greek letter *pi* is now transliterated with an Arabic *bā*’, while in his own notes about the conversation with Ibn Suwār, Ibn al-Nadīm was using the (more common in his time) transliteration with a *fā*’. The connecting sentence may stem from the Arabic version of Ps-Plutarch’s *Opinions of the Philosophers*, cf. *Aetius arabus*, 100.5 Daiber (spelled *Fūṭāḡūras*).

51 Flügel *et al.* 1872 [the edition of the *Fihrist* was completed after Flügel’s death in 1870 by A. Müller and J. Rödiger], II, 111, suggested that the reading “*Suqrāṭīs*” may reflect a prior “*Sophoniscus*,” which seems an unlikely hypothesis. This casual way of dealing with foreign names has a parallel a few lines before in the reference made by Ibn Suwār to the *Philosophical History* and what it stated about Thales as being the first philosopher. The name of the Ionian scientist is given in that case as “*Thālis* son of *Mālis al-Amalīsī*” (I, 245.14 Flügel) where *Mālis* could either be a mistake for *Thālis* (repeated by lack of knowledge of Thales’ father’s name) or a first attempt to translate “*Milesian*,” followed by a hypercorrection (“*al-Amalīsī*”). The edition of Qusṭā ibn Lūqā’s translation of the Pseudo-Plutarch reads *Thālis al-Malaṭī* possibly a corruption of *al-Malaṣī* (*Aetius arabus*, 3.13 Daiber).

52 The sentence in the *Fihrist* is roughly parallel to what we read at the beginning of Ibn Fātik’s entry on Plato (see the translation by Rosenthal 1965, 28–29). It is of course possible that Ibn Fātik used the *Fihrist*, which he certainly knew. It is also very likely that he had access to some of the sources used by Ibn al-Nadīm. Qusṭā ibn Lūqā provides the same spelling for “Plato son of Ariston” in his translation of the *Placita* (*Aetius arabus*, 8.1 Daiber) but does not give an etymology. On the classical parallels to this etymology see Notopoulos 1939, 135–145.

osophical books (*Fihrist*, chap. VII, 1), Ibn al-Nadīm has two entries on authors named “Plutarch.” One of them, he claims, was the author of a single book *On Rivers and Mountains*, while the other one was known for five titles, among which are some works known to have been written by Plutarch of Chaeronea.⁵³ None of the titles attributed to these two “Plutarchs” refer specifically to philosophers’ biographies or bibliographies, but the Arabic translation of Ps-Plutarch’s *Opinions of the Philosophers* by Qusṭā ibn Lūqā is duly mentioned, so that it may be taken for granted that Ibn al-Nadīm had a copy of such an important work, as he did also for other works by Qusṭā ibn Lūqā which have not been preserved.

Provisional Conclusion

Research on the Arabic transmission of Porphyry’s *Philosophical History* is still in its early stages. Porphyry’s massive literary output, his versatility, the influence of his work on almost each and every Late Antique author (Pagans and Christians alike) up to Medieval scholars, are among the reasons making the study of his works particularly difficult. The study of Porphyry’s works is disputed today between historians of philosophy, specialists of patristics or gnosticism, in addition to the historians of sciences and those of Greek literature, seemingly without much confrontation or exchanges. The role played by Porphyry on the development of philosophy in the Arab world, first established by Richard Walzer, also made him the object of numerous studies by the specialists of Arabic medieval philosophy, but the discussion of their findings in the world of classicists remains limited.⁵⁴ Yet, a better knowledge of Porphyry’s philosophical commentaries, of his exegesis of ancient history and religions should be further sought before a concrete understanding of his diffusion will be reached. To be properly conducted, such research will require the collaboration of specialists of Greek, Syriac and Arabic literatures in their varied aspects. Besides the role of the Christian fathers and within the same sphere, a better study of the Syriac chronographers will be needed: their use of Eusebius and of Eusebius’ own sources is well attested as is also the influence of Cyril of Alexandria’s *Contra Julianum*.⁵⁵ Were parts of this work available in Syriac and Arabic, as were other treatises by Cyril?

The history of research on the *Philosophical History* illustrates this in an exemplary way. Early scholarship on the *Philosophical History* did not take into account

53 Ibn al-Nadīm, *Fihrist*, VII, 1, s. v. “Flūtarḥūs,” see the translation by Dodge 1970, vol. 2, 611.

54 This was first acknowledged by Walzer 1965, 273–299.

55 Next to the *Isagoge*, Porphyry’s most famous work among the Arabic-speaking scholars was his edition of Plotinus’ *Enneads*, mistakenly attributed to Aristotle in the Arabic tradition where it was known as the latter’s *Theology* (on which see the comprehensive article by M. Aouad, in *DPhA*, vol. 1, 541–570). On the fragments of the *Enneads* in Syriac, cf. *DPhA*, vol. 5/a, 925–926 [C. D’Ancona]. Cyril transmits a *Letter to Tat* related to the *Corpus Hermeticum*, which might be identified with the book under this title known to al-Kindī, cf. Nock / Festugière 1983, s. v. “Fragments divers,” 140–141, n° 33 (= Cyril, *Contra Julianum*, 588B). On Cyril of Alexandria’s works in Syriac, see Geerard 1979, and Geerard / Noret, 1998 and 2003, *passim*.

the fragments discovered by Müller. Nauck, whose edition of the fragments was published in 1886, knew of Müller's discoveries, but he does not seem to have studied them thoroughly.⁵⁶ His investigation of the Arabic material resulted in the inclusion as "Fragment V" of a concatenation of two very different short notes. One was a report on Thales being the first of the Seven Sages, as transmitted in the *Fihrist* on the authority of Ibn Suwār, and the other was a chronological indication of Thales' date reported by al-Shahrastānī in his *Kitāb al-milal wa-l-nihal* and parallel to Barhebraeus' Arabic *Chronology*, the *Muḥtaṣar al-duwal*. Much later, after Rosenthal's discovery of the importance of Ibn Fātik's *Choicest Maxims* for the reconstruction of the Arabic excerpts of the *Philosophical History*, some interest among classicists emerged (in particular, F. Jacoby's positive comments on Rosenthal's finding of a unique extract on Diagoras was no small matter).⁵⁷ But ill-luck willed that recent studies and editions of the Porphyrian fragments (Segonds, Smith, Sodano) relied on Rosenthal's partial translations and fragmentary editions without any attempt to investigate the original material and to expand it.⁵⁸

The portrait of Pythagoras we read in the Arabic *Life of Pythagoras* is consistent with Porphyry's agenda elsewhere in his work. Pythagoras is depicted as a true successor of the Seven Sages, an initiate of Eleusis (through his imitation of Hercules), and a disciple of Zoroaster (cf. Ar. VII.14). But the question whether Porphyry really placed Zoroaster in the 6th c. BC deserves further research. Should we see here an attempt to play down Zoroaster's antiquity and use him as a tool in the controversy against the Gnostics (cf. Plotinus, *Enneads*, 2.9 and Porphyry, *Life of Plotinus*, 16)? Simultaneously, by confirming the relation between Zoroaster and Pythagoras, Porphyry seems to be giving some credit to the Christian haeresiologists' reports accusing Pythagoras and Empedocles of dualism, but was this part of a strategy to develop his own idea of an evolution towards genuine monism that would have been achieved only with Plato?

Although the transmission of a text in the Middle Ages may always go through several intermediaries showing little or no respect for the genuine "authority" of the text they copy and reassemble, Theodoret's description of the structure of Porphyry's *Philosophical History* seems too faithful to the preserved Arabic *Life of Pythagoras* for us to refuse ascribing the latter to Porphyry (a point of importance in the case of Ibn Fātik's evidence, as the Cairene author, unlike Ibn Abī Uṣaybi'a, does not mention his sources). However, if initial evaluation shows that the text transmitted by Ibn Fātik corresponds to the description of the *Philosophical History* which was left to us by Theodoret of Cyrus (*Curatio*, II, 95 Canivet), i. e. that of a

⁵⁶ Nauck 1886.

⁵⁷ Cf. supra, n. 40.

⁵⁸ A.-Ph. Segonds, ref. supra, n. 45; Smith / Wasserstein 1993; Sodano 1997. To keep this article within reasonable dimensions, a development on the history of research on Porphyry's *Philosophical History* has been reserved for the online critical edition of the Arabic *Life of Pythagoras* (forthcoming).

collection including biographies, maxims and doxographical extracts, not much is known of the sources used by Theodoret.⁵⁹ Were they compendia or full texts?

The fact, that according to Ibn Suwār, two “books” of the *Philosophical History* were translated into Arabic does not seem to provide any further clue whether these were translated from Greek or from Syriac. But Ibn al-Nadīm’s statement about the availability in his time of the fourth “book” (if this is how *maqāla* should be understood, rather than “chapter”) in Syriac may imply that the two other treatises available had been translated from Greek. The greatest number of Syriac into Arabic translations were realized during the 8th–10th centuries, so that it seems hard to believe the Syriac text had already vanished. Supporting this hypothesis is the relatively good preservation of the Greek names in the Arabic *Life of Pythagoras* and the excellent preservation of the names of the Seven Sages in the anecdote reported in the Solon chapter of al-Mubashshir ibn Fātik’s *Choicest Maxims*. In contrast, the additional paragraphs known solely to Ibn Abī Uṣaybi’a (Ar. IV and Ar. XX), i. e. the list of plants used by Pythagoras for retreats and the excerpt on genuine and forged Pythagorean works, show possible evidence of a Syriac intermediary. As was seen above (section 1.1.2.) Ibn Abī Uṣaybi’a certainly knew enough botany to be innocent of the blunders we find in the Arabic translation of VP 34 (cf. Ar. IV.2–3). One cannot believe that he did not manage to translate the Greek words for “opium,” “coriander,” or that for “flour.” Moreover, the pure and simple transliteration of the names found in the original is a feature of old translations, as was noted by M. Meyerhof in his study of the pharmacopoeia of Maimonides.⁶⁰

Barhebraeus’ statement on Porphyry’s *Reports on the Philosophers* (*aḥbār al-falā-sifa*) i. e. the *Philosophical History*, more than two centuries after Ibn al-Nadīm, is puzzling. The passive *wujida* (in “its fourth book existed in Syriac (*wujida minhu al-maqālat al-rābi’a bi-l-suryānī*),” *Muḥṭasar al-duwal*, 78.21 Saḥḥānī²) might carry the meaning that it had been available in the past but was not available to him at the time of writing (something which in the midst of the Mongol invasion was not impossible). According to Notopoulos however, Barhebraeus’ Syriac *Chronicle* shows traces of a text he believes may have been Porphyry’s life of Plato, which

59 The *Graecarum affectionum curatio* was composed ca 437, around the same time Cyril of Alexandria achieved his *Contra Iulianum* (before 440), although Theodoret was slightly younger than the Alexandrian. A better understanding of the place of their respective works (and of that of Eusebius, on which they draw repeatedly) in the diffusion of Plotinus’ *Enneads* to the Syriac and Arab world remains a desideratum: both transmit excerpts from the very same Plotinian treatises we find in good order in the Pseudo-Aristotelian *Theology* and its related works, referred to as the *Plotiniana Arabica* (on which see Aouad, in: Goulet *et al.* 1989, and the introduction and concordance to the translations established by G. Lewis, in Henry / Schwyzer 1959 a).

60 Meyerhof 1941, vi–vii.

belonged to book four of the *Philosophical History*.⁶¹ This would imply that either Barhebraeus used this information from an intermediary source or that it was indeed available to him at some point, thus pointing to the continuous availability of the fourth book until the Syriac bishop's time, i. e. the thirteenth century, which was also the epoch when Ibn Abī Uṣaybi'a's lived and may have consulted it.⁶² This would explain the unique fragments found in Ibn Abī Uṣaybi'a, such as the paragraphs on the forgeries, a paragraph which was possibly taken from book IV, where Plato's attempt to collect the Pythagorean books may have been mentioned.

The impression of a Christianized text emerges from the sayings ascribed to Pythagoras in the Arabic tradition, known to Ibn Fātik and copied from the latter's *Choicest Maxims* by Ibn Abī Uṣaybi'a. They have been shown to be related to gnomological collections that were already known to Porphyry, such as the *Pythagoreiai gnomai*, which were also used by Porphyry to compose his *Letter to Marcella*.⁶³ But the formulation of the Arabic sayings shows distinct Christian features, similar to those found in the Arabic *VP*, such as the replacement of "gods" with "angels."⁶⁴ The question then arises of the possibility that the lost folios of the Greek *VP* did contain the gnomology we can read in the Arabic *Life of Pythagoras* (cf. Ar. XVII–XVIII, sayings M1 to M91).

Finally, let us turn briefly to what the Medievals made of this ancient erudition. Al-Mubashshir ibn Fātik's *Choicest Maxims* were the object of an extraordinary diffusion all along the Middle Ages, first pointed out by Franz Rosenthal, who corrected some of the earlier hypotheses made by Knust and Franceschini on the basis of the medieval Spanish and Latin translations. According to him, the Arabic text, composed in Cairo, quickly reached Spain where it was translated into Old Spanish and from this translation, passed into Latin.⁶⁵ At this stage already, the text was adapted for Spanish readers and preserved mainly the sayings, while the biographical information and its garbled Greek names were left aside. From then on, the *Choicest Maxims* were read in Old French and Old English (the famed *Dicts and Sayings of the Philosophers* was among the first books printed by Caxton on English soil) and constituted with Diogenes Laertius an important source of

61 Notopoulos 1940, 284–293. According to Eunapius' *Lives of the Sophists* the *Philosophical History* ended with Plato. On Eunapius and his proximity to Emperor Julian's circle, see De Labriolle 1934, 362.

62 The testimonies of the Suda and Tzetzes show that the *Philosophical History* could still be read in Greek in 10th–11th c. Byzantium.

63 Gutas 1975, 268–269; 486–487. Sodano 1991, 61–76. Knust 1879 already pointed out to the main gnomologies and to the *Golden Verses* and symbolae in his annotation to the chapter on Pythagoras in the *Bocados de Oro*, i. e. the medieval Spanish translation of the *Choicest Maxims*.

64 The same device is used by Hunayn ibn Ishaq in his translation of the *Golden Verses*, cf. his *Ādāb al-Falāsifa*, 116–119 Badawī.

65 Rosenthal 1960–1961, 132–158, at 143–144. As was first noticed by Rosenthal, the Old Spanish and the Old French that derives from it tend to skip biographies in favor of sayings. Cf. Knust 1879; Eder 1915, 928–933. The Latin text was published by Franceschini 1931–1932, 393–597.

information on Pythagoras for the medieval scholars. During the first half of the seventeenth century, an Arabic manuscript of the *Choicest Maxims* made its entrance to the Leiden University Library. It was used by Johannes Elichmann, a close friend of Golius and Descartes, to produce what is probably the first edition of the Arabic version of the *Golden Verses*.⁶⁶

In the East too, *The Choicest Maxims* were read, not solely in Syria by scholars such as Ibn al-Qifṭī and Ibn Abī Uṣaybi'a, but throughout Iraq and Iran, where al-Shahrastānī and al-Shahrazūrī made profitable use of the text to compose their own histories of philosophy. The latter in particular realized in his *Nuzhat al-Arwāḥ* a complete reworking of Ibn Fātik's text, slightly abbreviated. Shahrazūrī's text, composed during the second half of the thirteenth century, was translated into Persian during the fifteenth century, and continuously copied in this language in Iran and India during the subsequent centuries.⁶⁷ Moreover, the Arabic original of al-Shahrazūrī's *Nuzhat* kept being copied in the Persian-speaking world, as attested by a manuscript stemming from the court of Golconda now in Berlin.⁶⁸ Ibn Fātik's *Choicest Maxims* and the *Ṣiwān al-ḥikma* thus became, thanks to the extensive citations made by al-Shahrastānī, Ibn al-Qifṭī, or al-Shahrazūrī, the reference tools of erudites who sought information on the history of philosophy.

But let us ask now what kind of appeal these ancient narratives on the "philosophical way of life" and their accompanying maxims and anecdotes – cultivated as they were by both Pagans and Christians – had for the Medievals? An insight into the answers lies in al-Shahrazūrī's testimony, where his understanding of the paedagogical role of ethics is explained in such a way that his own philosophical sensibility comes forth.

The enlightened man must read, and the scientist learn and teach, the chronologies of the ancient sages and inspired philosophers of the Greeks and Egyptians. Likewise, they must know their words of wisdom, their edifying anecdotes and their sublime and exemplary lives. It is incumbent upon whomever seeks eternal felicity to consider their deeds, their speeches, and their ways of life in detail, if he wishes to take them as guides and models. For taking up the path leading to God – may He be exalted – in their footsteps is an immense blessing, a generous gift and a great lesson. Indeed, whoever examines the secrets of the Divine kingdom (*lāhūt*) and fervently wishes to observe the lights of the Lord's realm (*malakūt*), should not model his comportment on anyone other than these pillars (*asāṭīn*) [of wisdom] nor let others guide him. Only the lights of excellent sages and sent prophets must lead him. Nor should he lean upon one of the sons of demons, [and be among those] whose efforts in this life go astray while

66 Number 64 of the Golius collection (= cod. ar. 1488).

67 See Rosenthal 1960–1961; Cottrell, 2004–2005.

68 Staatsbibliothek zu Berlin, MS Or. Oct. 217 (= Landberg 430), copied in 782/1380. I owe the identification of the provenance of this manuscript to Francis Richard, whom I thank heartily.

they think they are working good deeds.⁶⁹ These times lack such virtuous men and all creatures – except those God wished to spare – are steeped in ignorance. Therefore, if you are among the serious researchers and the well-guided men of reason, you must follow their example, examine the veracity of what is told about them, and contemplate them inwardly⁷⁰ so that your actions and words will proceed from this method and reach this model. And perhaps through this personal effort, you will join their communities, share their intimate beliefs and contemplate the greatest secrets, that had been concealed after them. You cannot hope to contemplate all this without a pure behaviour and an extreme austerity. [And know that] to abstain from this world is akin to the shedding of its skin by a snake.⁷¹

Pythagoras, a Greek from Samos who traveled to Southern Italy in the early sixth-century BC and died there after the communities claiming his influence underwent political upheavals, was made into a “father of mathematics” in Western culture. In the East though, it was rather for his ethics that he was remembered.⁷² One may wonder if the Pythagorean revival in first-century BC Rome was the unique factor leading in the diverging path taken by Western Pythagorism. Beside the absence of Pythagorean books in Hellas, attested by Ibn Abī Uṣaybi’a’s fragment on genuine and forged Pythagorean texts (Ar. XX.22), Platonism might have played a role in the extinction of the scientific tradition attached to Pythagoras’ name in the East, even more so after the complete assimilation of the latter into what we know today as Middle-Platonism and Neoplatonism. It is likely that

69 An expression borrowed from Qur’ān, 18:104.

70 I read *fa-mattilhum bayna ‘aynayka*, with a slight modification of the vocalization suggested by Abū Shuwayrib.

71 Shams al-Dīn al-Shahrazūrī, *Kitāb Nuzhat al-arwāḥ*, 33–34 Abū Shuwayrib / 3–4 Khurshid Aḥmad. Cf. Porphyry, *Cave of the Nymphs*, 34, for a similar call to asceticism as a purification of the soul.

72 The role of the Syriac-speaking Christians remains to be studied. There is no doubt that the wide diffusion of the *symbolae* and of the commentaries on the *Golden Verses* among Christians played a crucial role in the use of these texts among Muslim scholars. It was Abū al-Faraj Ibn al-Ṭayyib (d. 1043), the secretary to the Jacobite patriarch in Baghdad, who translated into Arabic the *Commentary of the Golden Verses* attributed to Proclus (ed. by Linley 1984). This commentary, which according to Linley (whose translation is often faulty) does not resemble that by Hierocles, *pace* Walzer, does contain an anecdote on Theano known elsewhere solely from another work by Proclus, the *De decem dubitationibus circa providentiam*. The orthographic features and vocabulary of the commentary studied by Linley show the deep influence of Christian Arabic, possibly under the double influence of Ibn al-Ṭayyib and from the fact it may have been made out of a Syriac version (known to Ibn al-Nadīm). This text should be studied in comparison with the first section of the gnomology contained in the Arabic *Life of Pythagoras* (cf. *infra* Ar. XVII) the Greek original of which lays behind the commentary of the sayings forming what we know as the *Letter to Marcella*. Guillaumont 1962, highlighted the role of Neopythagoreanism in Evagrius’ thinking. On the role of Origen’s allegorical interpretations among Late Antique fathers, Muslim philosophers and mystics, cf. Gobillot 2002, 161–192.

the assimilation of Platonic and Stoic thought engaged by the Cappadocian fathers led to a further fall into oblivion of Pythagoreanism. Thābit ibn Qurra, one of the greatest scientists of the ninth century, states that no book by Pythagoras was available to him. Thābit's culture was deeply rooted in his Ḥarrānian background and his statement implies that no genuine scientific text by Pythagoras was known in his time, be it in Syria or in Iraq, where he had become one of the most important translators of the Abbasid court.⁷³ However, the handful of his works which survived and the greater legacy of the Graeco-Arabic translation movement show that the study of mathematics and astronomy continued in the Eastern Mediterranean through the widely available texts of Nicomachus of Gerasa and Ptolemy. As for the Eastern Christians such as Ibn Suwār or Ibn al-Ṭayyib and those who kept reading Neopythagorean ethics and cultivating the myth of a "divine" Plato, they were hardly remembered.

2 Concordance

It was not possible to represent all the differences, parallels or accidents in the texts in this concordance (especially for Ar. IV, XI and XIV). A full representation would require providing a synoptic view using the translated text to help non-Arabist readers follow the different versions. The places where Ibn Abī Uṣaybi'a differs from al-Mubashshir ibn Fātik are but a few, and we must admit that the chapter on Pythagoras in Ibn Fātik (and consequently, this section of the chapter in Ibn Abī Uṣaybi'a) are not entirely taken from Porphyry. The testimony of al-Shahrazūri may help in understanding the eventual additions of the manuscript of the *Choicest Maxims* to which both he and Ibn Abī Uṣaybi'a seem to have had access, but this point could not be addressed here.

I used the following letters: **c** for "complete," and **a** for "abbreviated," to explain whether the text of Ibn Fātik (= **Mub**) copied by Ibn Abī Uṣaybi'a (= **IAU**) is given in full or abridged. In the following translation (cf. *infra*, part 3), the additional material of Ibn Fātik is given between square brackets.

⁷³ *Muntaḥab Siwān al-ḥikma*, §254, 124, ll. 2719–2725 Dunlop. Thābit adds that "even two hundred years before [his] time, the Pythagorean scientific theories were already fully lost." Ibn al-Nadīm (*Fihrist*, II, 252.17–18 Flügel), however, states that Thābit had started a translation of Proclus' *Commentary on the Golden Verses* but died too early to complete it. It is not possible to ascertain that the commentary known to Thābit was the one later translated by Ibn al-Ṭayyib and published by Linley. In the absence of any trace of Thābit's translation, it could also well have been Hierocles' *Commentary*, since the ducti for "Proclus" (*Br[u]ql[u]s) and that for "Hierocles" (*Ḥr[u]ql[i]s) in Arabic are indeed very close, as was noted long ago by Walzer (cf. Linley, *loc. cit.*, vi, n. 15). Bibliographers such as Ibn al-Nadīm could very well have confused both works.

<i>IAU</i>	<i>Al-Mubashshir Ibn Fātik (ed. Badawī)</i>	<i>VP (ed. Des Places) and other Pythagorean material</i>
I	–	
II	–	Cf. supra part 1.
III	I (52.11–17 Badawī) c	
III.1		7 (38.26–39.4 Des Places)
III.2		39 (53.24–54.2 Des Places) + <i>Golden Verses</i> , vv. 10–11, 13–14, 18–19
III.3–5		Passim + ?
IV	II (52.17–53.2 Badawī = VP 34–35 strongly abbrevi- ated)	34–35 (51.25–52.26 Des Places)
V	III (53.2–3 Badawī = VP 33 strongly abbreviated)	33 (51.16–23 Des Places) + 39 (53.22–24 Des Places) (+ 30, 50.2–4 Des Places)
VI.1	–	IAU gives his source (= Porphyry)
VI.2	–	28–29 (49.12–16 Des Places)
VI.3–10	IV (53.3–12 Badawī) c	36 (53.2–3 Des Places)? + symbolae from VP 42 (55.11–56.5 Des Places)
VII.1	–	IAU gives his source (= Mub)
VII.2–15	V (53.13–55.5 Badawī) c	1 (36.1–2 ; 36.5 Des Places) + 2 (37.4–8 ; 36.14–16 Des Places) + 10 (40.14–16 Des Places) + 1 (36.5–6 Des Places) + 2 (37.1–4 Des Places) + 10 (40.23–24 ; 41.1–2 Des Places) + 11 (41.3–6 Des Places) + 11–12 (41.7–22 Des Places)
VIII	VI (55.5–56.1 Badawī) c	15 (42.16–18 Des Places)? + 55 (62.24– 28 Des Places)? + ? (cf. DL VIII,3 + DL I, 117–118)
IX	VII (56.1–57.7 Badawī) c	7–8–9 (39.6–40.10 Des Places) + 16 (43.1–4 Des Places)
X	VIII (57.7–58.8 Badawī) c	
X.1–4	VIII (57.7–58.2 Badawī) c	18–19 (44.1–18 Des Places)
X.5–8	VIII (58.3–8 Badawī) a Mub has a different list of cities compared to VP 22	20–21–22 (45.3–46.14 Des Places) IAU X.6 reduces the list of cities to “the people of Tauromenium”

IAU	<i>Al-Mubashshir Ibn Fātik</i> (ed. Badawī)	<i>VP</i> (ed. Des Places) and other <i>Pythagorean material</i>
XI	IX (58.8–13 Badawī) c	4 (38.1–9 Des Places)
XII	X (59.1–5 Badawī) a [IAU abbreviates the chronology of Pythagoras' life]	–
XIII	XI (59.6–11 Badawī) c	34 (p. 51.25–p. 52.6); 36–37 (p. 53.2–4)
XIV	XII (59.11–61.8 Badawī) c	54–57 (62.6–64.12 Des Places) strongly abbreviated and rear- ranged
XIV.1	XII (59.11–60.1 Badawī)	55 (62.22–24 Des Places)?
XIV.2–4	XII (60.1–5 Badawī)	54–55 (62.6–18 Des Places)
XIV.5	XII (60.5–6 Badawī)	56 (63.7–10 Des Places)
XIV.6	XII (60.7–8 Badawī)	–
XIV.7–12	XII (60.8–61.8 Badawī)	56–57 (63.10–64.12 Des Places)
XV	XIII (61.9–12 Badawī) c	Cf. infra “Additional notes,” to Ar. XV.
XVI	–	IAU gives his source for the sayings (= Mub)
XVII	XIV (62.1–70.3 Badawī) a	Cf. PG + GV + <i>Letter to Marcella</i> ?
XVIII	XIV.91 (70.4–8 Badawī) c	Second version of the symbolae. Cf. infra “Additional notes.”
XIX	XV (70.9–72.10 Badawī) a	
XX	–	IAU gives his source (= Porphyry)
XXI	–	Cf. supra section iv of part 1.

3 Translation of the Arabic *Life of Pythagoras* according to al-Mubashshir ibn Fātik (d. 1087?) and Ibn Abī Uṣaybi'a (d. 1270), based on Porphyry's *Philosophical History* and other sources

As explained in the introduction above, Ibn Abī Uṣaybi'a (Ar. III–XIX) abbreviated Ibn Fātik's text, to which he added a paragraph for which no other parallel has been found (Ar. XX), while Ar. IV, parallel to the Greek VP 34–35, is known to al-Shahrazūrī, who wrote the first draft of his *Kitāb Nuzhat al-arwāḥ* shortly after the *Generations of the Physicians* was composed.⁷⁴ Ibn Abī Uṣaybi'a did not interfere with the succession of the paragraphs in Ibn Fātik, and for this reason it has been possible to insert in brackets within the text taken from the *Generations of the Physicians* the additional material from the *Choicest Maxims* that was skipped by Ibn Abī Uṣaybi'a. The omissions especially occur in the gnomology, which did not really belong to the scope of an encyclopaedia devoted to the history of medicine. Within the text and notes, al-Mubashshir ibn Fātik is abbreviated as **Mub**, while in the gnomology, the additional sayings in the *Choicest Maxims* are numbered according to their rank in the text, preceded with the letter **M** for Mubashshir.

In the annotation to the translation below, priority has been given to the understandability of the text for readers of different disciplines. Most of the discrepancies with the Porphyrian text can be explained as translation mistakes, but listing these mistakes was not the initial objective, and it would have required the cooperation of a specialist of Porphyry. Rather, we attempted to provide the possible scribal corruptions which explain part of these mistakes, elucidating the vocabulary used, and describing the context of the allusions made in the text. Both translation and transliteration mistakes have been marked between asterisks so that the reader knows he will find further explanation either in the footnotes or in the additional notes at the end of the translation. We refrained from using here the erudite footnotes provided by the different editors and translators of the Greek *Life of Pythagoras* by Porphyry or those to the fragments of the sources he himself used, but we hope these will find a place in a full online commentary of the text in which interdisciplinary scholars willing to discuss the multifarious aspects of this text will participate. The Arabic *Life of Pythagoras*, we believe, is a paradigmatic representative of the early Medieval reception of a Late Antique narrative involving figures of the mythical past.⁷⁵

74 Cf. al-Shahrazūrī, *Kitāb Nuzhat al-arwāḥ*, 94 Abū Shuwayrib. The paragraph is missing from the short recension (edited by Khurshīd Aḥmad 1976). However, al-Shahrazūrī refers to Porphyry as pointing out to the 280 books composed by Pythagoras and preserved in "Antioch" (a common mistake for "Italy," as both *Anṭākiyā* and *Itāliyā* have very close ducti), an information he must have found in a parallel to Ar. XX. In the same breath, al-Shahrazūrī adds without explicit mention a source that Pythagoras lived during the end of the captivity of the Jews in Babylon (i. e. ca 538 B.C., under Cyrus the Great, cf. Augustine, *City of God*, XVIII, 37 who places Pythagoras' acme at the time).

75 A more extensive introduction on the state of research regarding the fragments of the *Philosophical History* in Arabic will hopefully be published online in a reasonable future with the Arabic text and critical apparatus (although we consider that Müller's text remains perfectly

The Life of Pythagoras, translated from the Arabic

I.1 *Pythagoras (Fīṭāḡūrs)*. **2** [also:] *Fūṭāḡūrās, Fūṭāḡūrs and Fūṭāḡūrīyā*’.

II.1 The Qāḏī Šā’id wrote in *The Book of the Ranks of the Nations*: **2** “Pythagoras (*Fīṭāḡūras*) comes long after Empedocles. **3** He studied wisdom (*ḥikma*) with the companions of Solomon, son of David – peace be on both of them – in Egypt, where they had arrived from Syria. **4** He had already learnt geometry with the Egyptians. **5** Then he returned to Greece where he introduced this science, together with the natural sciences (*‘ilm al-ṭabī’a*) and religious science (*‘ilm al-dīn*). **6** He deduced, from his own intelligence, the science of melodies, the composition of sounds (*ta’līf al-naḡam*) and placed them under numeral relations (*al-nusab al-‘adadiyya*), and claimed he had learned this from the window of prophecy (*miškat al-nubuwwa*). **7** He made odd allusions and symbolic explanations about the stratification (*naḡad*) of the world and its organization along the properties of numbers and their classification. **8** On the question of the Return (*al-ma’ād*), he held positions close to those of Empedocles, among which: beyond the world of Nature exists a spiritual luminous world, the beauty and splendour of which elude the intellect, and to which purified souls are yearning. **9** [Also] that man improves his soul’s rectitude by purifying himself from vanity, pride, hypocrisy, jealousy and other bodily passions. **10** Thus he was able to access the spiritual world and to perceive what he wished of its essences (*min ḡawāḥirihi*) and this, thanks to divine wisdom (*al-ḥikma al-ilāhīyya*). **11** As well, what is pleasant to the soul comes in an uninterrupted way, as melodies are heard, effortlessly. **12** Pythagoras composed on the laws governing arithmetics and music among other topics.” **13** End of [Qāḏī Šā’id]’s discourse.

III.1 Someone else (*wa ḡakara ḡayruhu*) reported that Pythagoras the Sage professed journeys (*kāna yarā al-siyāḡa*) and avoided contact with both those who killed and the victims. **2** And that he ordered: the purification of senses; learning to act with justice; [to practice] the totality of virtues; abstaining from faults; searching for human graces in order to know the nature of everything. **3** He [also] ordered mutual affection; education through the explanation of celestial sciences; fighting against bad leanings, as well as the impeccability of souls and the apprenticeship of spiritual effort (*jihād*) ; the frequency of fasting; sitting on chairs; the assiduity to read books, and also that men teach men and women teach women. **4** He ordered an excellence of elocution (*jawdat al-manṭiq*) and the exhortation of kings. **5** He also mentioned the eternity (*baqā’*) of the soul and its subsistence after death, whether in reward or punishment, according to the opinion of the divine sages.

commendable, it was important to verify the manuscripts he used as far as possible and to complete his work with the parallels offered in the manuscripts of Ibn Fātik and al-Shahrazūrī that were unknown to him).

IV.1 And when Pythagoras the Sage *presided the sanctuaries and became superior to the priests*, he began to nourish himself with foods which do not stir up appetite or thirst. **2** As to these foods, he prepared poppy seeds (*mīqūniyūn*) and sesame seeds, and scilla husks (*qišr asqāl*) well-washed to the bulb; as well as *anthericus, asphodel*, flour, chickpeas and barley. He would mash and mix a measure of each together, [binding them] with a kind of honey called *amīḥiyyū*. ⁷⁶ **3** In order to avoid thirst, he would prepare cucumber seeds and seeded large grapes, coriander flowers and corete (*qūryūn*) seeds, as well as *hyssop (*asūfa*) seeds* and purslane seeds, a sort of *cheese*⁷⁷ (*jubn*) known as *filṣamūs*⁷⁸ and cereal flour. He would mix [it all] with *wild mint / basil* honey (*ḥābūq*). **4** The Sage reported that Heracles had learned these two recipes from Demeter on his way to the Libyan desert. **5** Pythagoras imposed on himself a balanced diet, and was not once healthy and another time sick, just as he was not alternatively fat and thin. **6** He had a very pleasant soul and was not alternatively joyous or excessively sad. And no one ever saw him laugh or cry.

V.1 He always considered his companions above himself. **2** It is also said (*wa yuhkā*) that he was the first to say that his friends' possessions were collective and indivisible. **3** He cared about the health of healthy people and cured the ones whose bodies were aching and the afflicted souls, either with oracles (*takahhun*), or thanks to divine melodies (*al-alḥān al-ilāhiyya*) with which he [also] cured bodily pains. **4** He ordered to return any entrusted deposit and not only money and to keep one's word as well as being faithful to promises.

VI.1 Porphyry wrote in the first book / chapter (*al-maqāla al-ūlā*) of his book (*Reports on the philosophers, with their stories and sayings* (*Fī aḥbār al-falāsifa wa qiṣaṣihim wa ārā'ihim*), **2** strange stories about Pythagoras, including his predictions and what is attributed to him of miracles (*muḡayyabāt*) told by himself or by witnesses, as he had announced. **3** He would confide his wisdom in symbols, hiding it behind a veil. Among his enigmas, he would say this: **4** Do not overweigh the scale, i. e. "avoid excess." **5** Do not poke the fire with a knife, for it has been heated in fire before, or "avoid a provocative word with an irascible man when he is furious." **6** Do not sit on the bushel (*qafīz*), or "do not live in idleness." **7** Do not walk by wild lions, or "do not follow the opinion of young men (*murd*)."**8** Do not keep company with house swallows, or "do not imitate boasters and prattlers, among others who cannot keep their tongue." **9** Do not grab anyone's burden but help him carry it, or "Do not neglect your own affairs [be it in the domain] of virtues or in that of duties." **10** Do not cover with images of *angels (*al-malā'ika*)* the settings of your

⁷⁶ Gr. "Hymettian" was not understood by the translator, who left it in transliteration.

⁷⁷ Scribal corruption of *hubz* ("bread," cf. VP 34 and "Additional notes" on the rendering of this paragraph in the Arabic version): خبز → جن .

⁷⁸ Scribal corruption of unidentified Gr. *knesteos*, left in transliteration (فلسطوموس → قناستاوس).

rings, or “do not publicly declare your belief and make the secrets of divine sciences available to ignorants.”

VII.1 The Prince al-Mubashshir b. Fātik reported (*qāla*) this: **2** Pythagoras’ father was named Mnesarchus (*Mnīsārḥūs*), from the people of Tyre (*Ṣūr*). **3** [Pythagoras] had two brothers, the elder was Eunostus (*Awnūstūs*) and the other one Tyrrhenus (*Tūrīnūs*). **4** His mother was Pythais (*Būtāīs*), daughter of a man called Ankaius (*Ajqāyūs*), who lived in Samos (*Sāmūs*). **5** When the three tribes of Lemnos (*Līmūn*), *Imqros* (*Imqrūn*)⁷⁹, and Skyros (*Sqrūn*) defeated Tyre and settled there, the inhabitants deserted. Pythagoras’ father also left and he lived [near] the *lake* (*al-buḥāyra*).⁸⁰ **6** He then traveled to Samos, seeking fortune. He settled there and became a respected man. One day, traveling to *Antioch* (*Anṭakīyā*) [i. e. Italia < *Aytālīyā]⁸¹, he took Pythagoras with him so that he could see it, as it was a joy [to the eyes] and very fertile. **7** [The writers] report (*wa ḍakarū*) that Pythagoras went back and settled there after having seen its beauty. **8** When Mnesarchus left Tyre to live in Samos, [he took] with him his sons Eunostus, Tyrrhenus and Pythagoras.⁸² **9** The chief (*raʿīs*) of Samos, Androcles, adopted Pythagoras and took care of him, as he was the younger brother, and that his young age made him the most fit to receive the teachings of literature, grammar, and music. **10** Once he became a young man, he went with him to the town of Milet (*Milīṭūn*) and entrusted him to Anaximander (*Anāksīmāndrūs*) the Sage, so that he would learn geometry, [i. e.] surveying, and astronomy. **11** When Pythagoras had mastered these two arts, his love for science and wisdom became stronger and he traveled many a country in that search. **12** He visited Chaldeans (*kaldāniyyīn*), Egyptians, and several more. **13** He sojourned among the priests and from them learned wisdom; he became proficient in the Egyptian language and its three calligraphies: the popular writing (*ḥaṭṭ al-ʿamma*), the writing of the elite (*ḥaṭṭ al-ḥāṣṣa*), which is the abridged writing of the priests, and the Royal writing (*ḥaṭṭ al-mulūk*). **14** When he stayed in *Heraclea* (*Arāqlīyā* < *Arābiyya*)⁸³, he became close to the king, and

79 For Gr. *Imbros* (probable confusion of the Syriac *bēt* = and *kāp* =). This points to a possible Syriac interpolation within the paragraph, the full extent of which is still to determine.

80 For Gr. *Lemnos* (resulting from a confusion with Gr. *limnē* as noticed by Schaeder in a communication to Rosenthal 1937, 45, n.1). Ar. *buḥayra* means ‘lake’ but it was also one of the pagarchy around Alexandria in the early Islamic period (see *EI2*, vol. 1, 1288, s. v. *Buḥayra* [G. Wiet]), and possibly identified as such by the translator.

81 Scribal confusion ابطليا → أنطاكية.

82 Ar. VII.7–8–9 and 15 give the transliteration *Fūtāḡūras*, against *Fithāḡūras* in the rest of the paragraph. This might be a scribal correction (if the scribe failed to homogenize the orthography) or could also point to the role of two translators or that of a translator and an editor (a common practice according to Ibn al-Nadīm’s *Fihrist*, chap. VII). The same goes for Ar. VIII.6 in the next paragraph, and again in Ar. IX.11 and Ar. XX.2.

83 The scribal corruption cannot have been made on Arabic (where “Arabia” would have been spelled with a ‘ayn: *ʿarabiyya*), but proves the Syriac model here (Syr. *Ārābiyā*, cf. Payne Smith, *Thesaurus*, col. 366, with further confusion of the *bēt* into a *kāp* and probably a hypercorrection resulting in *Arāqlīyā*).

when he went to Babylon, he assiduously frequented the Chaldeans / astrologers (*ḥaldāyyūn*) and studied with *Zaratas* (*Zāratāṭā*)⁸⁴, who revealed to him what is incumbent to those who are truthful (*fa-baṣṣarahu bi-mā yajib 'alā al-ṣiddīqīn*). He transmitted to him [his book] *Lesson on Being* (*asma'ahu simā' al-kiyān*)⁸⁵ and taught him the principles of the universe (*awā'il al-kull*) and what they consist of. **15** It is thanks to this that Pythagoras excelled in wisdom and thus found the way to guide people and divert them from sin, [by using] the great number of sciences which he acquired with all nations and everywhere.

VIII.1 While still a young man (*fī bidāyat amrihi*), he frequented the wise man Pherecydes *the Syrian*, in the town of Delos (*Dilūn*), in Syria. **2** Pherecydes left and moved to Samos (*Sāmūs*). **3** He had been affected by a violent illness to the degree that lice swarmed on his body, and when his condition worsened so that he could not stand the place where he was any longer, his disciples transported him to Ephesus (*Afasas*). **4** When his condition worsened even more, he requested (*raḡaba*) that the inhabitants of Ephesus promise that he would be taken outside their town, and they carried him to Magnesia (*Māḡānisīyā*). **5** His disciples remained at his service until he died, they buried him and wrote his story upon his grave. **6** Pythagoras went back to Samos and after Pherecydes studied under *Hermodamas (*Armūdāmānītis*)* the splendid (*al-bahī*) and divine Sage who was from the lineage of Creophylos (*Qrāūfuliyū*) *in Samos. **7** There, he met with Hermodamas (*Armūdāmānis* !)* the Sage who was a descendant of Creophylos, and attached himself to him for a long period.*⁸⁶

IX.1 The tyranny (*ṭarāna*) of Samos then passed on to Polycrates (*Fūlūqrāṭīs*) the tyrant (*al-ṭrūn*). **2** Pythagoras fervently desired to return to the company of Egyptian priests, and he begged Polycrates to help him. **3** Polycrates wrote on his behalf to Amasis, king of Egypt, a letter informing him that Pythagoras yearned to meet him and that he was a friend of his. He solicited generosity towards his request and to welcome it with affection. **4** Amasis acceded and gave him a letter for the chief priest as he had wished. **5** Carrying their king's letter, he went to meet the people of Heliopolis (*madīnat al-šams*), presently known as 'Ayn al-Shams [in Cairo]. **6** They welcomed him very poorly and tested him for a long

84 MSS: Zārabātā. Emended (زارباطا - زارباتا). The final -ṭā should be identified as a suffix mark in Syriac.

85 The book in question is certainly the spurious *Peri Phuseos* of Zoroaster, quoted by Clement of Alexandria and by Proclus. The same Arabic title was also given to Aristotle's *Physics*, because of the ambiguity of the use of *kiyān* in Syriac: both "nature" and "being" (cf. Ullmann 1970, vol. *kāf*, 467).

86 Ar. VIII.7 seems to be the result of a double translation (resulting from an homoioteleuton after "Samos"?) of the same sentence, with *Afruqulim* respecting Arabic rules of orthography where two consonants – as in *Qrāūfuliy* – must be supported by an initial vowel, but adding further mistakes with the confusion of qāf ق into fā' ف and of final waw و into a mīm م : *Afruqulim* < **Aqrufuliyū*, from Greek dative *Creophylo*.

time without finding in him any fault or shortcoming. **7** They visited with him the priests of Memphis (*Manaf*) in order to make the test even more difficult. They gave him [the same] execrable reception and reinforced the examination without finding any failing [in him] or being able to make him stumble. **8** They then sent him to the people of Diospolis (*Dūsbulis*) to submit him [to more] confrontations but they could not find any way (*ṭarīq*) against him or any manner to let him incur the king's disgrace. **9** They imposed on him difficult precepts contradicting those of the Greeks [thinking he would refuse to apply them] so that they [would manage] to refute him and refuse his request. **10** However, he accepted these precepts and held on to them, which increased their amazement towards him. His audacity spread in Egypt until it reached the ears of Amasis, who put him in charge of sacrifices to God— be He exalted — and the rest of sacrificial offerings, [when] this had never before been entrusted to a foreigner. **11** Later, Pythagoras left Egypt to return to his homeland. In the *town⁸⁷ of Ionia (*Ayūniyah*), he built a house to teach. The people of Samos would visit him and get initiated to his wisdom; they arranged for him an abode outside of the city of which he made a place of reunion devoted to [the transmission of] his wisdom. He spent there (*yurābiṭ*) most of his time with a small group of disciples. **12** When he was forty, Polycrates' (*Fūlūqrāṭis*) tyranny had been going on for long as he had been named [tyrant of Samos] over them since a long time, and [Polycrates] wanted *[Pythagoras?] to replace him (*istakfāhu*).* **13** [Pythagoras] thought about this and considered that it was not good for a wise man to remain at the disposal of tyranny, power and injustice.

X.1 He traveled to Italy and from there to Croton, which he entered, and the inhabitants thought he had the best appearance, a pleasant eloquence, a noble soul (*nubl*), a wide knowledge of science, a just conduct, a vast generosity and a great perfection in every feature (*ḥiṣāl*), finally that he was [endowed with] the totality of virtues (*faḍā'il*). **2** The whole people of Croton submitted, becoming for him as disciples (*inqāda lahu inqiyād al-ṭā'a al-'ilmiyya*) and he imposed upon them [the rules] of infallibility of the Ancients, guided them, exhorted them to practice good deeds (*al-ṣāliḥāt*) and ordered the archons (*al-arākina*) to give books of sapiential literature (*kutub al-ādāb al-ḥikmiyya*) to the young and to teach it to them. **3** Men and women gathered near him to hear his exhortations (*maṭwā'izihi*) and benefit from his wisdom. [Pythagoras'] glory grew and his aura widened. **4** A great number of the inhabitants of this city became excellent in the matter of sciences, and the news spread so much that all the barbarian kings came to listen to his wisdom and to know his science. **5** Later on, Pythagoras travelled through the towns of Italy and Sicily as injustice and revolt were oppressing them. **6** The

87 Should be "region," but the word employed in Arabic, *madīna*, refers to a "city." Possibly the ambiguous *balad* ("town," "region") was used initially and later corrected into *madīna*.

inhabitants of Tauromenium (*Ṭāwrūmānīyūn*) and elsewhere⁸⁸ became his listeners (*ṣammā'īhi*) and the veracious [i. e. "perfects"?] (*ṣiddīqīhi*). 7 He uprooted their spirit of revolt as well as that of their children, and this for a long time. 8 His discourse (*manṭiq*) dispelled all villainy and when Sīmākhos (*Sīmāḥus*), archon of Centorbi (*Qāntūribīyyā*) heard his wisdom and advices, he decided to give up power and entrusted part of his possessions to his *brother*⁸⁹ and the rest to the town inhabitants.

XI.1 It was said (*wa dukira*) that Theano (*Bāndis* < **TYĀNS*)⁹⁰, who originated from Crete (*Farmas* < **QRṢS*)⁹¹ and king of Fūtū*, was a descendant of Pythagoras.⁹² 2 At the time when he resided in Croton (*Aqrūṭūnīyyā*), Pythagoras had a perfectly pure daughter (*bint batūl*) who taught religious laws (*ṣarā'ī' al-dīn*) to the virgins of the city, their obligations and rules (*farā'id*) as to what was permitted and forbidden. He also had a wife, who taught the rest of the women. 3 When Pythagoras died, *Dimitri (*Dīmīṭūdīūs*)⁹³ the believer (*al-mu'mīn*)* went into the house of the Sage and made it into a temple for the people of Croton (*Qrūṭūnīyyā*).

XII.1 [The authors] report (*wa ḍakarū*) that at the time of Cyrus' reign, Pythagoras was a young man. That reign lasted for thirty years. 2 After him, his son Cambyzes reigned, while Pythagoras was still alive. 3 Pythagoras lived in Samos for sixty years before he left for Italy. From there he headed to [Mub: Croton and stayed there for eight years and that when the agitation there happened, he left for] Metapontion (*Māṭāyūnṭīyūn* < **Māṭābūnṭīyūn*).⁹⁴ 4 He stayed there for five years and died.

XIII.1 His lunch was composed of honey and *honeycomb*⁹⁵, and his dinner of bread *qājḥirūn*⁹⁶ and vegetables, raw and cooked. 2 He ate no meat, except those

88 Al-Mubashshir ibn Fātik adds here: Crotonia, Syracusa, Agrigenta and Roma (all found in Porphyry, *VP* 21 where lesser-known cities are further listed). The mention of Roma in the Arabic list has no parallel in the preserved Greek *VP*, but it might have played a role in the Pythagoras chapter of the *Philosophical History*, written after Porphyry's meeting with Plotinus in Rome. The whole sentence seems to aim at transforming Pythagoras into a Gnostic precursor.

89 Gr. "to his sister (*adelphē*)."
Scribal mistake in the Arabic transmission (sister → brother: أخيه → أخته).

90 باندس → ثيانوس .

91 فرمس → قرصس .

92 Instead of "daughter of Pythonax," the female disciple of Pythagoras has been made into a man and her name transformed into "king of Pytho," possibly through a calque translation of *Python-aktōr. I am grateful to C. Macris for his suggestion here.

93 What stands for the goddess Demeter seems to be a scribal corruption resulting from the scribal corruption *Demeter-heios* into "Saint (Ar. *al-mu'mīn*) *Dīmīṭrīyūs*" (ديميطوريوس).

94 ماطايونطيون → ماطايونطيون .

95 سمناً → شهداً .

96 Gr. *kegkhron* (*VP* 35, 52.1 Des Places) transliterated (correctly) by the translator who could not understand the word.

which had been sacrificed by his clergy (*kahūnatihi*) and presented as offerings to God, be He exalted. **3** When *he presided to* the temples⁹⁷, he started to nourish himself with foods which gave no hunger or thirst. **4**. When a visitor presented himself to hear his words, he talked to him in either of two ways: according to the mode of argumentation and lesson, or with exhortation and advice. His teaching was of two kinds (*šakl dū fanayn*).

XIV.1 He had to take a trip somewhere and wished to gather his disciples before leaving them. They met in the house of a man named Milon (*Mīlūn*) and, while they were there a man of Croton, named Kylon (*Qūlūn*), burst in. **2** He was a man of great nobility and powerful lineage, and he had a lot of money. For this reason he was uttering insolent words to others, and displayed arrogance and injustice. **3** So he was in the presence of Pythagoras and started to boast but [the latter] scolded him in front of his guests, and advised him to try and purify his soul. **4** Kylon's fury towards him redoubled, he gathered his friends, accused Pythagoras in front of them of being guilty of impiety and organised with them to kill him together with his friends. **5** When they burst upon him, they killed forty people, and the others fled. Among those, a few were caught and killed, and others escaped and went into hiding. **6** The chase and the hunt lasted, and [his companions] feared for Pythagoras' life. They appointed a small group among themselves and used ruse to protect him until he could get out of the city in the middle of the night. **7** A small group escorted him to Kaulonie (*Qāwlūniyā*), and from there to Locris (*Lūqrūs*), where the calumny against him was already known. **8** The important people (*mašāyih*) [of Locris] came to him and said: "Indeed you are, O Pythagoras, a sage, as we can see, and calumny (*šanā'a*) is indeed contemptible. But we have not found in our laws (*nawāmīsinā*) what could condemn you, and we are firmly attached to our rules (*šarā'i'inā*); so, take among us the hospitality which is owed you and your travel provisions (*naḥaqa li-ṭarīqika*), and leave our country in peace." **9** He then went to Tarentum (*Ṭāranṭā*) and was surprised there by some people of Croton (*Qrūṭūniyā*) who got close to kill him and his companions, but he left in the direction of Metapontion (*Miṭābūnṭiūs*). Everywhere, arguments about him were so vivid that the inhabitants remembered them for long years. **10** Later, he took shelter in the temple (*haykal*) of the months⁹⁸ (*al-asnān*) also known as the temple of Muses (*haykal al-mūsūn*), and he and his friends entrenched there. He stayed there for forty days without food, and flaming [objects] were thrown on the temple where he was. **11** When his friends realised [the danger] they came close to him (*'amadū ilayhi*) and set him in their midst, encircling with him to

97 انداس → أناس . See above, Ar. IV.1 and *infra*, additional notes.

98 There is a possible misunderstanding here of the Greek original which I cannot elucidate. Arabic *asnān* has three principal meanings: "teeth," "peaks," and "years." The word which is used for "Muses" is a simple transliteration of Greek *mouson*. If "the years" is correct, the homophony between Ar. *mausim* ("season," "period") and the uncommon *mūsūn* (for "Muses") could be behind *asnān*, and what follows (correctly) is an hypercorrection.

protect him from the fire with their own bodies. **12** But as the fire spread in the temple, the flames grew and the pains caused by the heat surrounding the sage [increased], which in addition to the effects of the fast made him fall dead. Then [the fire] surrounded them all and they burnt. This was the cause of his death.

XV.1 [The authors] report (*wa dakarū*) that he composed 280 books, and left behind a great number of disciples. **2** His ring was engraved: "An ephemeral evil is better than an ephemeral good," which means that an evil prompt to disappear is better than a good the disappearance of which can be anticipated. **3** And on his belt: "Silence protects against regrets" (*al-ṣamt salāma min al-nidāma*).

XVI.1 As to Pythagoras' moral teachings and his exhortations, I copied this from the *Book of Choicest Maxims and Best Sayings* (*Kitāb Muḥtar al-ḥikam wa Maḥāsin al-kilam*), by the Prince Maḥmūd al-Dawla Abī al-Wafā' al-Mubashshir ibn Fātik.⁹⁹

XVII.1 [=M1] Pythagoras said: "Just as the origin of our existence and creation is within God, likewise it is incumbent upon our souls to be devoted to God."

[**M2** He said: "If you wish to know God, do not waste your time knowing people, as it is possible for you to know God while saving your talk."]

[**M3** He said: "It is not the words of the sage that are first with God as to attain His reward, but the actions."]

2 [=M4] And also: "Thinking (*al-fikra*) belongs specifically to God, the love [of thinking] is linked to the love of God, and whoever loves God exercises the precepts of His love, whoever works in view of His love approaches Him, and whoever approaches Him is saved and rewarded."

3 [=M5] He said: "The sacrifices and the offerings are not signs of honour to God, rather the belief that one should have in Him is enough to honour Him."

4 [=M6] He said: "The great number of words concerning God is proof of man's powerlessness to know Him."

[**M7** He said: "At the time of every corporal or intellectual action, keep in mind the proximity of God, who is witness to every action and thought. You will soon feel ashamed under the eyes which escape nothing. And this will happen when you will commit yourself to God."]

[**M8** He said: "Appreciate what is noble and elevated in actions, and not [only] in words so that you become such as God wishes for us, as He is our Creator."]

[**M9** He said: "The wise man (*al-insān al-ḥakīm*) who censors himself in front of God is known to Him. For this reason, he does not regret being little-known among people."]

[**M10** He said: "God has no better place on earth than within a pure soul."]

⁹⁹ In the following sayings, **M** stands for al-Mubashshir ibn Fātik in order to provide readers with the additional sayings omitted by Ibn Abī Uṣaybi'a. A number of these sayings find parallels in Porphyry's *Letter to Marcella* and in the *Pythagoreiai Gnomai* (i. e. Pseudo-Demophilus), the Sextus collection, and the *Golden Verses*. See "Additional notes," infra.

5 [=M11] He said: "Nothing is more profitable to man than discussing glorious and sublime things, but if that is impossible, let him listen to the one who tells them."

6 [=M12] He said: "Refrain from acting badly whether in solitude or with others. Let the shame you feel for yourself be even greater than the shame which you would feel towards anyone."

7 [=M13] He said: "Let your goal be, in money matters, to earn it by licit means and to spend it licitly."

8 [=M14] He said: "When you hear a lie, just force your soul to bear it with patience."

[M15 He said: "Think before you act so that you will not be blamed for your action."]

9 [=M16] He said: "You must not neglect the matter of your physical health, but you must apply moderation (*qaṣad*) as to food, drink, sexuality and exercise."

[M17 He said: "Refrain from doing what could bring jealousy (*al-ḥasad*) onto you."]

10 [=M18] He said: "Do not be wasteful as the one who does not know the value of what he owns, but do not be paltry either to the extent of excluding personal freedom. Best in all matters is moderation."

11 [=M19] He said: "Be vigilant in your opinions all throughout your life, for somnolence in thinking matches impotency. (*fa-inna subbāt al-ra'y muṣārik li-l-mawt fī al-jins*)"

12 [=M20] He said: "What you must not do, restrain from [letting it] come to your mind."

[M21 He said: "Do not hope that someone vile will cause you good, for everyone's behaviour (*tadbīr*) is for his own self only while what he dispenses to others is related to what indicate his thinking and conscience."]

[M22 He said: "[When] someone's tongue lies and he is bad-mannered, his prayers as well as his sacrifices are impure to God."]

[M23 He said: "To recriminate oneself is more useful than blaming your close relations."]

[M24 He said: "The correct travel provision in a just life consists in not doing wrong to your friend."]

[M25 He said: "Negligence does not allow reaching the truth of things."]

[M26 He said: "Know that with the one who is devoid of science, it is better to flatter him, to keep him company, and to scoff at him without excess, rather than mocking him. For the life of the ignorant is disgrace (*ʿār*)."]

[M27 He said: "As a useful maxim, think of your enemies as brothers."]

[M28 He said: "The judge who does not render just decisions is familiar with every villainy."]

13 [=M29] He said: "Do not soil your tongue with malicious gossip, and do not lend your ears to it."

[M30 He said: "Make your intelligence master of all of your comportments at every moment, for the sleep of intelligence is akin to death."]

14 [=M31] He said: "It is difficult for man to be free, when he submits to committing hideous actions which become habitual to him."

15 [=M32] He said: "It is not appropriate for man to seek absolute wealth or lofty buildings for, after he dies, these things will be preserved according to their own nature (*'alā ḥudūd ṭabā'i'ihā*) and someone else will dispose of it. But he must seek the wealth which will be useful for him to spend after the separation [from this world]."

[M33 He said: "It is more commendable for someone to be ashamed while he has a wooden bed and keeps faith in God, than to have a bed of gold and to doubt."]

[M34 He said: "When the sage breaks from what is decent (*ḥaraja 'alā ḡayr al-ṣawāb*), he is the cause of all evils."]

[M35 He said: "Choose to move within your soul, and not your body, so that your profits are spiritual and not corporal."]

16 [=M36] He said: "Embellished figures, coated ornaments, soon become futile."

[M37 He said: "Failure affects not only who caused it, but also those who are linked to them."]

17 [=M38] He said: "Do believe that the foundation of the fear of God is compassion."

[M39 He said: "If you have harmed someone, imagine that you cannot put an end to the harm he does you."]

[M40 He said: "Prepare yourself to what could happen to you in the future, whether they be things you enjoy or pain you, and especially those that grieve you in your daily life."]

[M41 He said: "It is incumbent upon you to move away from all the ornaments (*zahārif*) of the world, which make your reflection stray and confuse it."]

[M42 He said: "Do not let your eyes sleep before you have reviewed your actions of the day and stopped at the points on which you have been in error [considering] what you should have done if you have been in error. And [stop] at what you have done and shouldn't have done, and at what you should have done but did not do. As to the ill that happened, be afraid of it, and as to what you have reached that was praise-worthy, rejoice in it. This will prepare you to what brings you closer to the divine excellence (*al-faḍīla al-ilāhiyya*) of the one who gratified our souls with the Tetraktys (lit. "the quadruple source," *al-yanbū' dā al-arba'*) which comes from immutable Nature (*al-latī lā tataḡayyar*)."]¹⁰⁰

18 [=M43] He said: "When you wish to realise one action among others, start with imploring success from God."

100 *Golden Verses*, vv. 40–47.

[M44 He said: "Give some of your possessions to kind people and to the needy, for he who does not give to others according to their needs receives nothing from God."]

19 [=M45] He said: "Whomever you have tested by experience, and whom you found unfit [for you] as an acquaintance and friend, beware of making your enemy."

[M46 He said: "Is not counted as free the one who cannot control himself."]

[M47 He said: "Choose a man on his action, not on his word, for many have beautiful speeches but vile manners."]

20 [=M48] He said: "It would be better that man does not sin (*an lā yaḥṭā*), and if he does, the most profitable for him would be to be aware that he did, and that he deeply wishes not to do it again."

[M49 He said: "The one who is used to being unjust, do not entrust him with your governance."]

[M50 He said: "Wine is an enemy to the soul, a hindrance to acting of one's own free will. It gives strength to the body and excites it, by acting the way fire meets fire."]

[M51 He said: "It is incumbent upon man to be obedient to his sovereign and his army. But this is not absolute. This should only remain so to the extent required by the conditions of freedom."]

[M52 He said: "It is better for man to die than to let his soul grow dark with ignorance and laziness."]

[M53 He said: "Do not let the despicable way of life of the one who denies [divine] benedictions turn you away from good deeds."]

[M54 He said: "Remember this: all beings are created to achieve virtuous thinking (*li-yaḥkurū al-fikra al-faḍīla*), but few reach this higher rank and are capable of being patient in view of reaching it."]

[M55 He said: "To the pure and divine soul, there is no way that it be suited by any of terrestrial pleasures."]

[M56 He said: "For who devotes his whole life to obedience to God, it is necessary that his hope always be in God and with God."]

[M57 He said: "Rejoice over the one who blames you, and not over who flatters you."]

[M58 He said: "Beware of letting enmity find a way to increase."]

[M59 He said: "When someone does you a slight harm, do not do him a harsher harm."]

[M60 He said: "When your friend commits a wrong to you, show patience towards him and forgive him."]

[M61 He said: "Be very careful to have friends who take you for what you are and not for what you own."]

21 [=M62] He said: "The most appropriate thing for man is to do what is necessary, not what he desires."

22 [=M63] He said: "You must know the moment when speaking is desirable, and the moment when silence rather is."

[M64 He said: "The one whose soul does not overcome the body, his body is a grave for his soul."]

23 [=M65] He said: "The free man is the one who does not let one atom of his soul [lose itself] in any natural desire."

[M66 He said: "The height of equity and justice is harmony in the decision and its implementation."]

[M67 He said: "Strip your intellect of passions so that the right way to proceed (*ṣidq al-mu'āmalā*) will appear."]

[M68 He said: "If a just intention (*ḥusn al-ẓunn*) has not preceded everything praise worthy to which you aspire, you will not appreciate what you asked for, even if you achieve it. In the same way, it is incumbent upon man to precede his despicable actions with unjust thinking (*sū' al-ẓunn*)."]

24 [=M69] He said: "As much as you ask for you will learn, and as much as you learn, you will ask [for more to learn]."

25 [=M70] He said: "The sage is not obligated to never be angry, but to be so with moderation."

[M71 He said: "He was asked: 'What man is free?' And he answered: 'The one who serves the right'."]

26 [=M72] He said: "The sage is not the one who had to bear and be patient and resist; the sage is the one whose burden was more than his nature could endure, and who remained patient."

[M73 He said: "The physician is the one who does not let his body waste away, and not the one who cures others. That is to say, the one who preserves (*man ṣāna*) himself from committing ugly actions (*al-maqābiḥ*) and acts commendably (*fa'ala al-faḍā'il*), and not [simply] someone who prescribes and demonstrates but neglects his own self (*man taraka nafsahu*)."]

27 [=M74] He said: "The world is changing, sometimes in your favor and sometimes against. If you are in control, be up to it, and if you are driven, be flexible."

28 [=M75] He also said: "Most calamities arise in animals because they are without speech, and they arise in men because of it."

29 [=M76] He also said that the one who can forbid four things to his soul will not have adversity descend upon him as it descends upon others, [they are] haste, disputatiousness, vanity, and negligence. For haste bears regret, disputatiousness bears confusion, vanity bears hate, and negligence bears degradation.

30 [=M77] He saw a man who was wearing a magnificent coat but was using faulty grammar and he told him: "Either your speech must [resemble] your coat, or you [must] wear a coat that resembles your speech."

[M78] The king of Sicily asked him to come and stay [at his court], but he answered [him]: "Your spirit goes the opposite of what fits you, and your abode is

sliding from its foundations. So do not hope for Pythagoras' presence at your side, as doctors have no obligation to fall ill with their patients.."]¹⁰¹

31 [=M79] He told his disciples: "Do not seek things according to your desires, but [rather] love things that are lovable in themselves."

[M80/1] He told his brother: "If you wish that neither your father nor your servant do wrong, you are asking for the unnatural."]

[M80/2]¹⁰² Do not wonder when a grave misfortune causes someone such a severe grief, but wonder about the patience which helps him endure it.]

[M81] He said: "The sage worries for his soul as someone else about his body."]

[M82] He said: "The soul is softened, for the just, by pleasures and delights, and for the bad, by sorrows and worries."]

[M83] He said: "You must show kindness to humans, as you can't [allow yourself] to detest them."]

[M84] He said: "Take as your friends those who are familiar with the truth and as enemies those who refuse it."]

32 [=M85] And he said: "Be patient and do not complain when you face vicissitudes assailing you, and do your best to find them a cure for them."

[M86] He said: "If you hear the best and the worst in people's speeches, do not get irritated and do not take on yourself to contradict it, but [take on yourself] to listen to it."]

[M87] He said: "If you hear a lie, try and be patient."]

33 [=M88] He said: "Think before acting."

[M89] He said: "The same way a man who cannot be trusted by the doctor when describing his case cannot be cured, the man who is not truthful to his self regarding his aptitudes and faults (*mā lahu wa mā 'alayhi*), will not benefit from either luxury or the ordinary goods."

34 [=M90] He said: "Too many enemies (*'adūw*) harm tranquillity."

XVIII.1 When Pythagoras sat down to deliver his testament, he gave these seven provisions: **2** "Verify your scales and know their measures. **3** Rectify the line¹⁰³ in order to stay in peace. **4** Do not stir up the fire where you see that the knife is sharp. **5** Refrain your desires in order to preserve [your] health. **6** Be fair so that friendship (*maḥabba*) may be established between you. **7** Bear [the vicissitudes of] time in imitation of those governors (*wulāh*) who may once have the upper hand and once be dismissed. **8** Do not spoil your bodies or your souls, as by doing so, they will be lacking in difficult times, should these happen." [**XVIII.1–8 = M91**]

101 The *Letter to the Tyrant of Sicily* was known in an Arabic translation, cf. infra Ar. XXI.27.

102 Badawī in his edition of Ibn Fātik's *Choicest Maxims*, counts 80/1 and 80/2 as one saying.

103 IAU: "the line (*ḥaṭṭ*);" Mub: "wrongdoings" (*al-ḥaṭā*).

XIX.1 [=M92] Money was mentioned and praised in front of him. He said: "What need would I have of what is brought by luck, preserved by miserliness, and squandered by generosity?"

[M93 He was asked: "What is the most difficult thing to man?" He said: "To know himself and keep secrets."]

2 [=M94] And one said: "He saw a shaykh who loved to dabble in science and was ashamed to be seen as such: 'Hey you! Would you be ashamed of being better at the end of your life than at the beginning?'"

3 [=M95] And he said: "The most annoying thing for your enemy is that you do not show him that you consider him as such."

[M96 He said: "The way of a powerful king (*sabīl al-malik al-ḥāzim*) is to take care of his kingdom and of his people as a landowner does his garden."]

[M97 He said: "The appropriate thing for the king (*sabīl al-malik*) at the beginning of his rule is to proclaim the common customs (*iẓhār al-sunan al-jāriyya*), to set in order the people's obligations, to edict the orders prescribed with the experts, according to what each one is able to prescribe. Also to fight his soul until he has divested it of any passion. And if he finds necessary to add [more] collaborators to his aides, let him request the agreement of the efficient advisors who assist him [in matters of] religion and stick to laws and [religious] precepts."]

[M98 He said: "What is appropriate for a king consists in avoiding pride and stubbornness in his own opinion ; [let him avoid] to hunt too often; [let him avoid] to remaining isolated, away from his guards. Let him avoid [as well] taking a path which he does not know well or yet a path with narrowings [of passage]. Let him avoid riding his horse in the dark of night. If he appears [in public] with his cortège, let him hold himself firmly on his mount, in a beautiful posture, showing a radiant face (*ṭalq al-wajh*), staring at people, waving back at them with a friendly gesture, since the eyes of the people on him are numerous. He should not let servant women under fifty years of age visit his wives. And if he needs a man to be at their service, let him be advanced in age, unattractive, [a man] of religion and confidence. When the king sleeps or enjoys some festivities, let him trust the guards of his castle and call on them at any time."]

[M99 He said: "Those [who are familiar] with bodily passions are slaves to the senses and those [who are familiar] with virtues (*faḍā'il*) are in harmony with intelligence (*al-'aql*)."]

[M100 He said: "The prudent man in this world is the one who can enumerate his faults, and his opposite is the one who can enumerate his qualities."]

4 [= M101] Death caught his wife in a foreign land and his companions came to lament her death in a foreign land¹⁰⁴, and he said: "O friends, there is no difference between dying abroad or in your homeland, [the proof being] that there is only one way to the Hereafter (*al-āḥira*), no matter the place [of departure]."

104 Homoioteleuton, cf. infra, "Additional notes."

5 [= M102] He was asked: "What is the most beautiful thing?" and he answered: "It is what the human being desires."

[M103 To a young man who scorned studying: "O young man, if you are not patient in the face of the effort to study, you will be patient before the misery caused by ignorance."]

6 [= M104] He said: "The man who is loved by God – exalted be He – is the one who does not abide by his odious thoughts."

[M105 He said: "A moderate discourse is the most refined incense that may be offered to God."]

[M106 He said: "The discourse about God, it is incumbent to precede it with actions which please God. But only God knows what truth there is to it."]¹⁰⁵

XX.1 I copied / translated / excerpted¹⁰⁶ (*naqaltu*) [this] from the book of Porphyry on the *Reports on the Philosophers, [with] their Stories and Opinions* (*fī aḥbār al-falāsifa wa qīṣaṣihim wa ārā'ihim*): 2 "The books of Pythagoras (*Fūṭāğuras*) the Sage, which Archytas (*Arḥūṭis*) the philosopher from Tarentum (*al-Ṭāranṭīnī*) brought together all by himself number eighty. 3 As for those which he attempted with all efforts to collect, to edit and to assemble from the elder men who belonged to the family (*jins*) of Pythagoras the philosopher, to his party, and the recipients of his scientific teachings, one man after the other, they number two hundred. 4 But whoever reflects on his own over them with the best of his intelligence and takes out the fakes which are said to be from the mouth of the Sage and put under his name [but] were fabricated by dishonest people and which are: 5 *The Book of the Secret Dialogue / Fervent Prayer* (*Kitāb al-Munājāh*); 6 *The Book of the Description of Vile Professions*; 7 *The Book of the Science of mechanisms*; 8 *The Book of the Rules for the Organisation* (*taṣwīr*) of *Banquets* (*majālis al-ḥumūr*); 9 *The Book about the Preparation of Drums, Cymbals and Lyres*; 10 *The Book of Priestly Exhortations* (*al-mayāmir al-kahanūtiyya*); 11 *The Book of Crop Seeds* (*biḍr al-zurū'*); 12 *The Book of Instruments*; 13 *The Book of Poems*, 14 *The Book of the Generation of the World* (*takwīn al-'alām*); 15 *The Book of the Hands* [i. e. *Astronomical Tables* ?]; 16 *The Book of Virtue* (*al-murū'a*), and many more books which resemble those but were only recently forged, 17 – he will enjoy eternal felicity." 18 He said: And these dishonest men, these criminals who fabricated the forgeries which we just mentioned, they are, according to the tradition: Aristipp the Rhetor / Sophist (*Arisṭībūs al-muḥaddīṭ*), and *Niḡūs known as "the One-Eyed" / "who had a weak eye"¹⁰⁷ (*'ayn al-nāḡiṣ*),

105 End of the chapter on Pythagoras in al-Mubashshir ibn Fātik. The last sentence is certainly an addition by Ibn Fātik or a copyist.

106 The Arabic verb *naqala* has these three meanings equally so that it is almost impossible to choose one here, depending on whether we decide to consider that this introductory sentence was written by Ibn Abī Uṣaybi'a, by the translator of the Porphyrian extract or by anyone else in the chain of transmission.

107 This conundrum could possibly result from a mention of "Philip of Opus" (a disciple of Socrates and Plato whose interests were mainly in astronomy and who is believed to be the real author of the *Epinomis*) which in the transmission was garbled into [Phi-]lippios

and a Cretan (*min iqrīṭīyya*) called Cleinias (*Qūnīūs*)¹⁰⁸; also Megillos (*Māḡīālūs*), and *Fūhḡwāqā*¹⁰⁹ and others even worse [than them]. **19** And what had made them fabricate these fakes under the name of Pythagoras the philosopher and ascribe them to him, was the desire to be received by young people thanks to him and to be honoured, revered and assisted. **20** The books of the Sage on which there is no doubt are two hundred and eighty.¹¹⁰ **21** They were forgotten, until they reappeared with a group of sages endowed with a pure intention and piety, who found the books, collected and edited them. **22** Before that [these works] were not known in Hellas (*Illādā*), because they were preserved [solely] in Italy.

XXI.1 Plutarch says that Pythagoras (*Fūṭāḡuras*) was the first one to name philosophy as such. **2** And the books by Pythagoras (*Fūṭāḡuras*) which are available are: **3** *The Book of Arithmetics* (*Kitāb al-ariṭmāṭiqī*), **4** *The Book of Tables* (*Kitāb al-alwāḥ*), **5** *The Book on Sleep and Awakeness* (*Kitāb al-nawm wa-l-yaqza*); **6** *The Book on the Condition of Soul and Body* (*Kitāb fī kayfiyya¹ al-nafs wa-l-jasad*); **7** *Letter to the Tyrant of Sicily* (*Risāla ilā mutamarriḡ¹¹¹ Siqiliyya*); **8** *The Golden Letter*, so called because Galen wrote it in gold letters out of respect for its value and splendour, and he applied to study it, reading it every day; **9** *Letter to Saqāyīs¹¹² on the Deduction of Meanings*; **10** *Letter on Rational Politics* (*al-siyāsāt al-‘aqliyya*), and this epistle was commented upon (*wa qad tuṣābu ḡaḡiḡi al-risāla*) by Iamblichus (*Amaliḡas*); **11** *Letter to Sīmdūsīūs*.

Additional Notes to the translation of the Arabic Life of Pythagoras

Ar. I.

Ibn Abī Uṣaybi‘a lists three possible transliterations of the name Pythagoras in Arabic, differing mainly in the length of the vowels. The last form, *Fūṭāḡūrayā*¹ seems to reflect an Arabic plural (with -ā’ ending) unattested elsewhere and probably shaped on Syriac (cf. Payne Smith 1879–1901, col. 3123).

(confusion of l/n and of p/q are common in both Syriac and Arabic) and a further misunderstanding of Gr. *Opountios* as deriving from Gr. *opsis* (“sight”)? This, of course a very tentative hypothesis; the tone of XX.18–19 is that of a scholion which may have been inserted at any time in the transmission.

108 If not for Megillos who immediately follows and is associated to Cleinias in the *Laws* and the *Epinomis*, one may search for other candidates.

109 The two initials are possibly the result of a scribal corruption of a Syriac *semkat*.

110 This number appears already in Ar. XV.1, thus showing that the source used for Ar. XV was probably the *Philosophical History* rather than considering Ar. XX.20 as an interpolation. What precedes (Ar. XX.4–19) may have been an interpolation, or belonging to the original text. The translator’s style shows that his Arabic was rather weak.

111 Ar. *mutamarriḡ* is usually translated “rebel” but the meaning of the verb *tamarraḡa* is “to be immoderate” (cf. Lane, *Dictionary*, vol. 7, 2706a), so that its use in this context where the title is well-known is not incorrect but probably archaic. See further, “Additional Notes” below.

112 سقايس from [Anak-]simānis (سمانس) ? Cf. D. L. 8.49.

Ar. II

On this paragraph, see above, part 1. **II.1** This chronological mismatch is accepted by Ibn Abī Uṣaybi'a's contemporary Barhebraeus in his chronicle in Syriac (cf. Wallis Budge 1932, 19) immediately following a quotation from Eusebius where Empedocles is said to have been a contemporary of the prophet David. **II.6** r. *miškāt* is used in the Qur'ān in a simile where God is compared to a "lamp" where a light which is "neither from East or West is burning." The term is derived from Ethiopic *miškōt* (see Worrell 1948, 46–47). Moreover, *miškāt* (used mainly in commentaries to the Qur'ān but rare in other contexts) appears in Ibn Hishām's *Biography (sīra) of the Prophet Muḥammad*, where it is used by the Ethiopian Negus when he replies to Muḥammad's envoys that, according to him, Jesus and Muḥammad were carrying the same prophetic message, originating from the same *miškāt* (spelled *miškūt*, according to the old orthography). For possible traces of a Christian Alexandrian influence (as already noticed by Munk 1857, 245–247) behind the formulation, cf. Clement of Alexandria, *Stromata*, VI, 57.3–59.2.

Ar. III.

III.1 The beginning of the paragraph shows a possible misunderstanding where "[Pythagoras] advised travel (*kāna yarā al-siyāḥa*)" could reflect a poor translation of "Eudoxos in his *Travel around the Earth*."¹¹³ Ar. *yarā* (present form of *ra'ā*, "to see, to consider") is common in philosophical literature for Gr. *edoxen*, cf. *Siwān al-ḥikma*, 79 Badawī, and *Aetius Arabus*, 2.26; 3.1, 3.24; 4.8, 4.19 Daiber, etc. For their part, the Brethren of Purity refer four times to Pythagoras in a similar context, two of which being explicit references to the *Golden Verses*. The Brethren state that the ascetic way taught in the poem leads to the ascent of the soul in the Hereafter, where it will float in the air, purified, wandering (*sā'ih*) and immortal.¹¹⁴ The report of Ibn Suwār on the availability in his time of the *Philosophical History* in Syriac and / or in Arabic implies that Ar. III.1 may have been behind the Brethren's interpretation.

Ar. IV

IV.1 The second part of the sentence might be considered as an explanatory gloss, after the mistaken use of a verb which does not seem attested in the dictionaries. For this reason, we suggest to understand Ar. *inra'asa* as a mere corruption of Ar. *indāsa*,¹¹⁵ which properly corresponds to Gr. *egkatadusesthai*. The addition "and

¹¹³ I am grateful to C. Macris for his help in "cracking the code" here.

¹¹⁴ Cf. Marquet 2006, 38–39.

¹¹⁵ انداس → انراس. A manuscript of a unique recension of al-Shahrazūri's *Kitāb Nuzhat al-arwāḥ*, the Istanbul Esad Efendi 3804, has kept the trace of the original verb according to the old orthography (اندوس with a *waw* instead of the *alif* for the concave verbs). On this manuscript and its relation to the short and long recensions of the *Nuzhat*, see Cottrell 2004–2005, 231–232.

became the superior of the priests" was added in the process of the transmission in Arabic to develop on the corrupt *inra'asa*. This seems confirmed by the fact that a second occurrence of this same phrase in al-Mubashshir ibn Fātik's extract (cf. Ar. XIII.3) corresponds more exactly to its position in Greek VP 34. In this other occurrence, the gloss is lacking and the recipes have been omitted (from a lack of interest or with an intention of censorship).¹¹⁶ IV.2 Gr. *kai asphodelon antherikon*, Ar. *wa-antāriqūn wa-asfūdālin*. The genitive construction was not understood, possibly after the confusion of a *dālat* and a *wāw* in Syriac (**d^e-asfūdālin* ?). As to the 'flour' which seems to be rendered by Ar. *awālīs* in our text it might be the result of a transliteration of Gr. *palēs* which I cannot explain (possibly, Ar. *aw [b-]ālīs*, with fall of the initial *bā'* would mean "or flour"). IV.3 The hyssop is missing from the preserved text of the Greek VP. The honey "from the islands" (Gr. *nesiotiko*) should refer to a honey made from a plant growing on sandy soils, where basil and wild mint are common. Ar. *ḥabūq* might be understood with this meaning, if *ḥabūq*, unattested elsewhere, is to be taken as a local pronunciation (or possibly a Syriac local form) of *ḥabaq*, i. e. wild mint (but also used for other odoriferous plants such as basil, artemisia, or origanum). IV.2–3 Most of the forms used in the translation of this pharmacopoiea are simple transliterations of the Syriac equivalent or directly of the Greek word.¹¹⁷ The fact that most of the plants names in our recipes are to be found in Bar Bahlul's Syriac-Arabic dictionary (composed first half of the tenth-century?) is a possible indication of the availability of a Syriac or an Arabic version of VP 34 to him.¹¹⁸ This would also imply that the paragraph appeared in Porphyry's *Philosophical History* as we can read it in Ibn Abī Uṣaybi'a. The differences between the Greek and the Arabic text point to two different versions of the *Life of Pythagoras*, the one preserved in the Greek VP, and another version, redacted especially for the *Philosophical History*.

Ar. VI

VI.4–10 **Symbolae**. The text follows VP 42 with omissions and diverging interpretations. Hans Daiber, quoting Baumstark, pointed the role of Theodore bar Konai (*Liber Scholiorum* II, 291.11-18) as a possible intermediary in the transmission of the symbolae. Daiber believes that Theodoret, who composed his *Book of Scholia* around 791, knew the *Philosophical History*, perhaps through a Syriac compilation.¹¹⁹ Nevertheless, the role of Cyril of Alexandria, who quotes the symbolae

116 The mention of the mallow in both recipes might have led to its expurgation from the text used by al-Mubashshir ibn Fātik. Mallow had been famously forbidden by the Fatimid caliph al-Ḥakīm (r. 996–1021), often known as the "mad caliph," whose reign led to a schism in Ismailism which led to the formation of the Druze sect.

117 Cf. Payne Smith 1879–1901, s. v. "*mayqūn*," col. 2096–2097; "*andraqīnī*," col. 257; "*andrakhnā*," col. 258; "*asfudelūn*," col. 312.

118 Duval 1888, s. v. Greek index, with additional bibliography on *mekonion* (1076.21), *skellos* (1378.02), *skilla* (1384.20 and cf. 241.21), *antherikos* (210.3), *asphodelos* (131.18), *korion* (1753.10), *malakhè* (1021.13), *andrakhnè* (199.4).

119 Daiber 1994, 4984. Baumstark 1905, 5 f.

in his *Contra Julianum* (PG 76, col. 961 AB) as expressly copied from Book I of the *Philosophical History* should be further investigated.

Ar. VII

VII.14 There can be no doubt that Zaratos (a pronunciation which probably reflects Aramaic) in Porphyry's *VP* 12 should be identified with Zoroaster: he is identified as the author of the *Peri Phuseos*, a text known, e. g. to Clement of Alexandria (cf. Clement of Alexandria, *Stromata*, V, 14; Proclus, *Comm. In Remp.*, vol. 2, 109.9 Kroll and Bidez / Cumont, *Mages Hellénisés*, II, 16). According to Proclus, the *Peri Phuseos* was dedicated to "King Cyrus." This could explain the chronology referred to in *Ar. XII.1*. Moreover, Cambyses, given as the son of Cyrus in the same paragraph (*Ar. XII.1*), is known to Herodotus as a contemporary of the Pharaoh Amasis, whom Pythagoras visited according to Porphyry. On Zoroaster as a priest of Mithra, see Porphyry's *Cave of the Nymphs*, 6.

Ar. VIII

On the Pherecydes episode, cf. Diogenes Laertius, I, 117–118. **VIII.1** "The Syrian" (sic), i.e. from the island of Syros in the Cyclads. Delos is the place where Pythagoras buried Pherecydes according to Diogenes Laertius, I, 118.

Ar. IX

IX.12 On Polycrates's exact date and more generally on the chronology of Pythagoras, see the remarks of Labarbe 1962, 153–188.

Ar. X

X.6 Spencer Trimingham 1979, 143, noticed that the Arabic words used to designate the degrees of auditors and initiates (or 'elects') in Manichaeism are *sammā'ūn* and *ṣiddīqūn*. It is not unlikely that the translator was influenced by this vocabulary, which complies with other archaic features. Debates between Zoroastrians, Christians, and Manichaeans were widespread in Iraq and Iran before the advent of Islam, and were extended to include Muslim theologians well until the 10th–11th c. and later.

Ar. XI

XI.3 A Syriac translator could be accountable for some of the mistakes showing a Christianizing trend in the text unless the Greek original had already been altered in this direction.¹²⁰

120 Cf. Lane 1863, 103, s. v. "*mu'mīn*:" "...is [found] as an epithet applied to God: *He Who rendereth mankind secure from his wronging them....*" Demetrius of Alexandria (d. 232) was certainly known to the Syriac transmitters of chronicles. This and a possible reference to the "Buḥayra," i. e. the "lake," but also the administrative name of the Egyptian Eastern delta (cf. *Ar. VII.5*), are possible hints of the Christian milieu where the translation was carried out.

Ar. XII

XII.1 is introduced with “the authors reported” which seems to imply a shift in the source, apparently a chronology where the reigns of the Achaemenids were synchronized with Biblical history, of the type that was also used by Eusebius. It cannot be excluded that Porphyry decided to confront Greek and Biblical history in his *Philosophical History*, as this was the common practice of his time and had been for at least two centuries before him. Porphyry famously debated in book XII of his *Against the Christians* the date of the *Book of Daniel* by resorting to his extensive knowledge of ancient history.

Ar. XIII

XIII.1 The “butter” (*samman*) we find in the Arabic text is the result of a scribal corruption of “honeycomb” (*šahdan*). **XIII.3** Cf. *supra* commentary to **IV.1**.

Ar. XIV

XIV.1–12 shows important differences with the Porphyrian text of the Greek *VP*. The parallel between Porphyry’s and Iamblichus’ *De Vita Pythagorica* is well-known, with Iamblichus adding where Porphyry’s text ends abruptly (because the manuscripts we have all represent an incomplete witness, lacking an undetermined number of folios at the end). The Arabic version of Pythagoras’ death in the Arabic *VP* is closer to Diogenes Laertius, 8.39–40.

Ar. XV

XV.1 is introduced with “the authors reported” and seems to imply a shift in the source, while XV.2–3 on the sayings found on Pythagoras’ ring (Ar. XV.2) and belt (Ar. XV.3), are inspired by a topos of Pehlevi literature that duly appear in Ḥunayn ibn Ishāq’s *Ādab al-Falāsifa*.¹²¹

Ar. XVII

XVII.1–34 (= M1 to M91): The parallels to the *Puthagoreiai Gnomai* (= Pseudo-Demophilus) in this section were analyzed by Gutas 1975, 248–250; 268–275. On the transmission of the *Sayings of Sextus* in Syriac, cf. Arzhanov 2015. The longer text of Ibn Fātik includes even longer extracts from the *Golden Verses* and one of the *Letter to the Tyrant of Sicily* (see *infra* Ar. XXI.7) alongside other sayings and anecdotes. Ullmann identifies the *Golden Verses* (=GV) behind most of the sayings of the first part of the Pythagoras gnomology in the *Choicest Maxims* (GV 40–44, 46–49, 11, 12, 16, 23, 27?, 32, 33, 36?–38, 31–39, 21–24, 39) and those taken over from Ibn Fātik by Ibn Abī Uṣaybi’a.¹²² Ḥunayn ibn Ishāq carried out a faithful translation of

121 The belt saying is ascribed to Pythagoras (spelled Fūṭāgūraš) by Ḥunayn, *Ādab al-falāsifa*, 45 Badawī. On the Pehlevi origin of rings and belts sayings, see the article by Zakeri forthcoming.

122 Ullmann 1959, 24–26.

the *Golden Verses* (cf. *Ādāb al-falāsifa*, 116–119 Badawī). Ullmann considers that the version preserved by Miskawayh (*al-Hikma al-ḥalīda*, 227–228 Badawī) is a simple revision of Ḥunayn's text. Nauck in his time already provided in his edition of the *Letter to Marcella* a list of parallels between this text and important gnomologies such as the *Pythagorean Maxims* of the Pseudo-Demophilus, the related Syriac *Pythagorean Maxims*, the excerpts of Stobaeus, and the *Florilegium Monacense*.¹²³ It was only much later, however, that the Arabic parallels were investigated by Rosenthal and Gutas in their respective contributions to the studies of the gnomologia (cf. Gutas 1975 and Rosenthal, *infra* Ar. XIX). Porphyry seems to have been using a gnomology he probably knew by heart,¹²⁴ reappropriating it in the prosaic form of his *Letter*.¹²⁵ The same device was used earlier by the same author in his *De Abstinētia*, book II, 34–35 (known to Cyril of Alexandria, *Contra Iulianum*, II, 37, who rephrased the excerpt in order to give it a Christian inclination).

Ar. XVIII

This is the second occurrence of the Pythagorean symbolae. These were widely copied in Arabic literature, where they are ascribed by some either Socrates (cf. Shahrastānī, *Book of Religions*, *871 Badrān / Jolivet) or the physician Archigenes in a dialogue where Socrates provides the keys for each symbola.¹²⁶ The dialogue in question is mentioned by Ibn al-Nadīm (*Fihrist*, 260.5 Flügel) among al-Kindī's works as a *Dialogue between Socrates and Archigenes* (*Kitāb risālatihī fī muḥāwara jarat bayna Suqrāt wa Aršīḡānis*) which should be identified with the text transmitted by Ibn Hindū (who studied philosophy with Abū al-Ḥasan al-ʿĀmirī, himself the pupil of Abū Zayd al-Balkhī, a close disciple of al-Kindī) and was known to Ibn Fātik, *Muḥtār*, 116 Badawī). The version here preserved by Ibn Fātik and copied by Ibn Abī Uṣaybi'a cannot have been taken from a gnomology of Pythagoras in the *Philosophical History*, since the symbolae have already been quoted at Ar. VI (parallel to VP 42) with explicit reference to Book I of the Porphyrian lost text. Rather, it is close to the text preserved by the Pseudo-Majrīṭī, the source of which seems to have been shared by Ibn Fātik.¹²⁷ Clement of Alexandria (*Stromates*, V, 30–31) and Hippolytus, *Refutatio*, VI, 27 share some of the symbolae in our text but in most cases either the sequence or the explanation differs.¹²⁸

123 Nauck 1886, introd. xviii–xx.

124 On the role of gnomologies in rhetorical studies, see the interesting hypothesis put forward by Mahé 1978, I, 408–418.

125 For the parallels between the *Letter to Marcella* and the Sextus collection, see the contribution of I. Fotini Viltanioti in this volume. See further Chadwick 1959, 144–158; Rocca-Serra 1971; Sodano 1991a; Sodano 1991b.

126 Ibn Hindū, *al-Kalim al-rūḥānīyah fī al-ḥikam al-Yūnānīya*, 375–377 Khalifāt (in: Khalifāt 1995). The chapter is titled *Muḥāwarāt jarat bayna Aršīḡānis [sic] wa Suqrāt*.

127 Cf. *supra* n. 33 and *ad loc*.

128 On the Christian transmission of the symbolae, cf. Thom 1994.

Ar. XIX

This section shows parallels with several Greek and Arabic gnomologies identified by Rosenthal.¹²⁹ Ibn Durayd (m. 933) was among the sources used by Ibn Fātik, according to Rosenthal, alongside Ḥunayn ibn Isḥāq's *Ādāb al-falāsifa* and to the *Ṣiwān al-ḥikma*. Ḥunayn and Ibn Durayd in turn are dependent on two different Greek sources which seem to have shared some sayings, while Ibn Durayd and the *Ṣiwān* probably depend on a common source. **XIX.1** Cf. Rosenthal 1958, 48 n°LIV: "When the value of money and the possession of large amounts of it were extolled in his presence, he said: 'What do I need money for? Obtaining it depends on luck, saving it is (a sign of) meanness, and spending it liberally is the end of it,'" with references to Ḥunayn's *Ādāb al-falāsifa* (missing from the Hebrew translation), where it is ascribed to *Bndārs or *Bīdārs (if we remove the dot of the *nūn*), while the *Ṣiwān* ascribes it to Pythagoras. Abū Ḥayyān al-Tawḥīdī, *Imtā'*, 2.45, ascribes it to a Ṭiyūdūrūs but the ductus according to Rosenthal is close enough to Bndārs, with Ḥunayn and Ibn Hindū, which Rosenthal suggests should be identified with Bion, with Stobaeus and Maximus the Confessor.¹³⁰ **XIX.3** Cf. Rosenthal 1958, 49–50, n°LIX: "Observing an old man who wanted to study philosophy but was ashamed to do so (on account of his age), he said: 'You there! Are you ashamed of being better at the end of your life than you were at its beginning?'" parallel to Ibn Hindū (Socrates). Repeated in Ibn Fātik's *Choicest Maxims* in the chapter on Plato and again in the chapter on Socrates. A Greek parallel can be found in Stobaeus. **XIX.5** Cf. Rosenthal 1958, 40–41, n°XXX: "When death came to Anaxagoras in a foreign country..." with the same homoioteleuton as in Ibn Fātik. Rosenthal 1958, 40, n. 2, notices that the ducti for Anaxagoras and Pythagoras are close enough to assume a confusion and provides parallels with the *Ṣiwān*, where the saying is ascribed to Pythagoras in a formulation practically identical with Ibn Durayd; twice in the *Choicest Maxims* (in the Pythagoras' chapter and in the anonymous sayings) and in Ibn Hindū, where the orthography **Abāfūthāgūrs* may help explain the transition from Anaxagoras to Pythagoras: Ar. **Abā-* in scriptio defectiva would have rendered Syriac 'nṯṯ (pronounced *āṯṯā*), "wife." The Greek tradition ascribes the saying to Anaxagoras (Diogenes Laertius and *Florilegium Vindobonense*, while the *Gnomologium Vaticanum* ascribes it to Anaximenes once and to Anaxagoras another time, parallel to Diogenes Laertius; Antonius Melissa ascribes it to Diogenes). **XIX.6** Rosenthal 1958, 41, n°XXXII identified two occurrences of the same sayings¹³¹ in the *Choicest Maxims* (once in the chapter on Pythagoras n°103, and once in the chapter made of anonymous sayings), and refers to Aristotle, *Nic. Ethics*, 1099a28; *Eudemian Ethics*, 1214a6; Diogenes Laertius I, 36 (Thales); Stobaeus and *Gnomologium Vaticanum* for thematic parallels.

129 Rosenthal 1958, 29–55 and 150–183.

130 See further Gutas 1975, 218–220.

131 On the phenomena of repeated translations of the same sayings and anecdotes in Ibn Fātik's *Choicest Maxims*, see the review by Kuentz 1957, 255–269.

Ar. XX

XX.2 On Archytas (*Arḥūṭis*), cf. *Muntaḥab Šiwān al-ḥikma*, § 238, 112–113 Dunlop. **XX.10** Ibn Abī Uṣaybi'a ascribes a *Kitāb al-Mayāmir* and a *Book on Metaphysics* (*fī mā ba'd al-ṭabī'a*) to Empedocles (37.7 Müller).¹³² It should be added here that according to the *Commentary on the Golden Verses* ascribed in Arabic to "Proclus," the author of the poem is none other than Empedocles, who was the one who wrote down the *Golden Verses* (transmitted by his master Pythagoras).¹³³ **XX.16** A *Book of Virtue* is ascribed by Diogenes Laertius (II, 85) to Aristippus (Aristipp the Rhetor = Aristipp of Cyrene). **XX.17** The identification of Megillos was already suggested by M. Steinschneider.¹³⁴ A Pythagorean "Clinias" is mentioned by Athenaeus, *Deipnosophists* XIV, 624a. **XX.18** The only safe identification in this list is that of the Socratic Aristippus of Cyrene, which is probably a late gloss by a Christian reader of Porphyry. Aristippus' thoughts on *hedone* could well explain the disparaging comment at XX.19. On **XX.20**, cf. Ar. XV.1.

Ar. XXI

XXI.7 A fragment of this Pseudo-Pythagorean letter is preserved in Arabic.¹³⁵ **XXI.8** Galen's daily reading of the *Golden Verses* is a common topos of Arabic literature.¹³⁶ **XXI.9** Diogenes Laertius (VIII, 49–50) gives a letter supposedly written by Anaximenes to Pythagoras. **XXI.10** Ibn Abī Uṣaybi'a states that Iamblichus commented on this single epistle while Ibn al-Nadīm's *Fihrist* reads "on these epistles (*hāḍihi al-rasā'il*)," without further specification as to which of the titles in the list are actually referred to. **XXI.11** This title is missing from Ibn al-Nadīm. It was either added by Ibn Abī Uṣaybi'a himself or by one of the scribes of the *Fihrist*. The name could be read Simonides.

132 Al-Shahrāzūrī might be referring to this title when he describes a book of Empedocles "on the divine science (*fī al-'ilm al-ilāhī*)" [sc. on theology] he has perused (*Nuzhat*, 83.9–10 Abū Shuwayrib). He further quotes explicitly the *Kitāb al-Mayāmir* by Empedocles in his *Sharḥ ḥikmat al-iṣrāq*, so that we may wonder if the two titles of Ibn Abī Uṣaybi'a are not one and the same book.

133 Cf. the use of the words *wāḍi'* and *mudawwin* by the translator Abū al-Faraj Ibn al-Ṭayyib, in Linley 1984, 4 and 78 (Arabic text).

134 Steinschneider 1893, 4, n. 10.

135 Gutas 1975, 222–225 gives the Greek and Arabic texts in parallel.

136 Boudon-Millot 2011, 21–22, identified the citation of Galen on his reading twice a day of Pythagorean exhortations as taken from the *De propriorum animi cuiuslibet affectuum dignotione et curatione*, 6 De Boer [CMG, V,4,1,1, 1937, 21, 8–10]. Ullmann 1959, 22, had identified yet another reference to Galen's daily reading of Pythagoras in the *De cognoscendis curandisque animi morbis*, cap. 6.

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Two Humanist Lives of Pythagoras

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Introduction

These two sixteenth-century descriptions of the life of Pythagoras were written fifty years apart by humanists in very different scholarly worlds: pre-Reformation Italy and post-Reformation Germany. Yet the treatments are closely linked, since the later took the former as its model. Neither was composed as an independent work – indeed all known Renaissance lives of Pythagoras were composed as subsections of larger texts.

First is the entry on Pythagoras from the encyclopaedic 1506 *Commentarii Urbani* of Raffaele Maffei (1451–1522). Sometimes called Volterrano or Volaterranus, Maffei came from Volterra and was educated in Rome under the guidance of his father Gherardo Maffei, a law professor and apostolic secretary under three popes. Raffaele mastered Latin and Greek, but found the corruption at the Vatican distasteful, and turned down a political career to dedicate his life to charity; he taught at an academy held in his home, founded a house of Poor Clares and considered a monastic life himself, finally joining the Servite Order. He translated Homer, Xenophon, sermons, and other Greek works, and wrote highly critical and influential lives of Sixtus IV, Innocent VIII, Alexander VI, and Pius III. His best known work is the massive *Commentarii Urbani*, dedicated to Julius II, which treats in three sections Geography, Anthropology (including contemporary history), and Philology, with extensive treatments of popes and emperors, animals, plants and minerals, the arts and sciences including optics and astrology, and the works of Aristotle. His brief entry on Pythagoras draws broadly upon Greek and Latin sources, and focuses on Pythagoras' quasi-monastic school. Appearing as it does in the middle of a work, the Latin is simple and clear, since the humanist tendency to produce intentionally elaborate and ornamented Latin was restricted to Maffei's introductions. Despite its enormous length and corresponding cost, the *Commentarii Urbani* were reprinted eight times within a century.

In 1559 – two generations and a Reformation later – Michael Neander (1525–1595) had Maffei's *Commentarii Urbani* at his desk when he wrote the dedicatory letter for his edition of the *Golden Verses* accompanied by poems of Phocylides. This was not the Michael Neander who taught astronomy and medicine at the University of Jena, but a philologist from Sorau, Germany, who later published several works on Greek erudition including *Graecae Linguae Tabulae... Gnomologici Graecolatini* in 1564 and *Graecae Linguae Erotemata* in 1586. His Pythagoras volume,

printed in Basel, was an early career-making effort by its 34-year-old editor; its dedication is addressed to the governors of Thuringia, and not to a princely pontiff. Thuringia had been quick to embrace the Reformation, and by Neander's day it was thoroughly suppressing Catholicism and had substantial Anabaptist activity. Neander's description of Pythagoras' life is nested toward the end of a letter focused on the value of Greek and Latin learning, which argues for the presence of divine knowledge in the Presocratics and a continuity of revelation from Moses through Pythagoras to Plato. The letter systematically repositions the arguments made by fifteenth-century humanists to defend classical learning in a Christian era, adapting them to strip out medieval authorities unpalatable in anti-Catholic lands, and to create an alternative history of learning, which jumps from Jerome to Erasmus. Neander shows uncommon courtesy by actually crediting Maffei Volaterranus in his footnotes, and may be counting upon his Protestant readers to know and respect Maffei's pious life and his much-reprinted criticism of corrupt popes.

Latin Texts

Raffaele Maffei, 1506, *Commentariorum urbanorum XXXXIII libri Raphaelis Volaterrani octo et triginta libri... item oeconomicus Xenophontis, ab eodem Latio donatus* (transcribed from the Gryphius edition, Lyon, 1552. fol. z5^v, 548).

Pythagoras Samius philosophus patre Demarato locuplete ac negotiatore, in Aegyptum primo, mox Babyloniam discendi siderum cursus gratia profectus est. Inde regressus in Cretam ac Lacedaemoniam pervenit, ut Lycurgi & Minois inclytas ea tempestate leges agnosceret. Ad ultimum in Italiam transmittens Crotonem consedit, ubi populos luxuriae adsuetos auctoritate ac doctrina ad frugalem cultum revocavit. Matronas ad pudicitiam, iuvenes ad modestiam cohortari coepit. Eius passim sanctitate ac vitae abstinencia inductae mulieres, auratas vestes, ornamentaque lasciviora in tempore Iunoni consecravere. Sed & ex iuvenibus CCC cum sodalitiis iure sacramento quodam nexi separatim a caeteris civibus religionis ac modestiae causa agitent, suspicione clandestinae coniurationis civitatem in se converterunt. Itaque eos in unam domum coactos vulgus cremare contendens tumultu omnia complevit, ubi LX periere, caeteri in exilium profecti. Pythagoras itaque cum multis annos Crotonem exegisset, Metapontum migravit, ibique decessit. Cuius tanta fuit admiratio ut ex domo eius templum facerent, eumque pro deo colerent. Haec ex Trogi libro XX Quintilianus autem libro IX Cicero vero ait. Tanta opinio de Pythagora praeiudicata potuit, ut eius etiam sine ratione valeret auctoritas. Docuit in Italia regnante Servio Tullo, ut Livius & Dionysius auctores. Eius Philostratus in principio vitae Apollonii, pluribus verbis meminit. Quemadmodum ab omnibus abstinere animalibus, animamque reducem putaret. Se propterea Euphorbum Troianum dicebat. Deinde pavonem fuisse, Ex quo Persius noster Pythagoraeum appellat pavonem. De ipsius secta scripsit Iamblicus libros

tris qui adhuc extant. In quos commentarios edidit Simplicius, opus utrunque [sic] in bibliotheca Vaticana conspicitur. Ipsius apophthema, φίλων πάντα [sic] κοινά, Amicorum omnia communia.

Michael Neander ed., 1559, *En Lector, Librum Damus Vere Aureum...* Basel, page 17 (f. c1^r).

Fuit vero Pythagoras philosophus, ex Samo insula oriundus, Mnesarchi annulorum sculptoris filius. Is cum discendi amore vehementissimo flagraret, in Aegyptum primo, mox Babyloniam, discendi causa profectus est. unde deinde regressus, in Cretam ac Lacedaemoniam pervenit. id quod pro veteri consuetudine veterum plurimi sequuti sunt, quemadmodum de ^aPlatone, Euripide, Solone, ^bApollonio Tyaneo, ^cCicerone etiam, & e patribus divo ^dHieronymo, scriptores prodiderunt: & ^eGalenus, medicorum princeps, de suis profectionibus discendi causa susceptis, ipse meminit. Postea vero cum iam multa ubique vidisset, didicisset, ac audivisset, ac cum doctissimis viris de studiis, iisque rebus de quibus dubitabat, seu quae scire cupiebat, saepe contulisset, ac patriam Samum a ^fPolycrate tyrano teneri intelligeret: ea relicta denuo, Crotone, quae civitas est Italiae, a ^gMilone Crotoniata & aliquot aliis praestantibus viris celebri concedit: ibique aperta schola, & iuventutem & eius loci cives optimis praeceptis ad studium honestatis, probitatis ac frugalitatis, aliarumque virtutum excitavit. Caeterum quibus legibus suos auditores rexit, ad quae etiam praescripta tum ipse vixerit, tum etiam suos omnes vivere voluerit, ^hpluribus exposuerunt, Laertius, Suidas in Pythagora, Philostratus quoque in suo Apollonio, & Iamblichus philosophus, Porphyrii Christianorum hostis discipulus: qui de Pythagorae vita & secta libros tres conscripsit, in quos Commentaria edidit Simplicius Aristotelis interpres. Cicero etiam, ac Plutarchus: & de Graecis veteribus theologis, Clemens Alexandrinus, & Philo Iudaeus: Erasmus etiam in Chiliadibus, & Lilius, ubi symbola interpretantur Pythagorae. Et quis veterum Pythagorae non meminit? ut nec Livii, nec Iustini, nec Gellii, nec Macrobiani, nec Luciani etiam, Virgilii & Ovidii poetarum, hoc loco mentionem faciamus. Inde enim, si qui his non sunt contenti, plura de

De Pythagora philosopho & aureis ipsius carminibus.

- a De Platonis peregrinatione, et Euripidis, et Solonis, vide Laertium in vitis philosophorum, Plutarchum in Solone, Herodotum quoque lib. 1. et Platonem in Timaeo.
- b De Apollonio vide libros 8 Philostrati de vita Apollonii. Volaterranum etiam lib. 13. Anthrologias, & Trithemium li. 2 Epistolarum familiarum ubi librorum 8 Philostrati Epite leguntur.
- c De Cicerone, vide Plutarchum in Cicerone.
- d De Hieronymo, vide vitae Hieronymi ab Erasmo ex eius scriptis confectam, quae initio 1. Tomi cum operibus eius impressa est.
- e Lib 9 de *Facultatibus medicamentorum simplicium*, ubi agit de terra Lemnia.
- f De quo apud Herodotum lib 3. proluxa extat historia
- g Cuius Pausanias, Plinius, Gellius & Valerius meminere, Galenus etiam in lib. qui *ad bonas artes exhortationem* continet.
- h Qui auctores scripserint de Pythagora.

Pythagora addiscere possunt. Ei autem Pythagorae quidam tribuunt poema, τὸ χρυσᾶ ἐπηκαλούμενον [sic]⁽¹⁾: hoc est, Aurea carmina nominatum, (poema vere aureum) quemadmodum id Suidas refert hisce verbis: τινὲς δὲ ἀνατιθέασιν αὐτῷ καὶ τὰ χρυσᾶ ἔπη⁽²⁾. seu quod revera ipse, seu etiam tota schola Pythagorae (quo Gellius⁽³⁾ inclinare videtur) eius autor fuerit: seu etiam, quod eiusmodi brevibus sentiis solitus fuerit proponere doctrinam de moribus: seu quod id scriptum eius moribus, eiusque vitae sanctimoniae maxime congruere sapiens iudicarit antiquitas. de quo alii aliter sentient: quae nos sub iudice ita in medio indiscussa relinquimus.

Translations

Raffaele Maffei, 1506, *Commentariorum urbanorum XXXXIII libri Raphaelis Volaterrani item oeconomicus Xenophontis, ab eodem Latio donatus* (transcribed from the Gryphius edition, Lyon, 1552. fol. z5^v).

Pythagoras of Samos the philosopher, whose father was the wealthy merchant Demaratus, embarked, under the influence of the stars, on a voyage of study, first to Egypt, soon thereafter to Babylon. Returning he came to Crete and Sparta, to acquaint himself with the famous laws of Lycurgus and Minos of that time. Finally crossing to Italy he settled in Croton, where, by his prestige and teachings, he converted people accustomed to luxury to a frugal lifestyle. He strove to urge matrons to chastity and youths to temperance. Everywhere women were inspired by the saintliness and purity of his life to consecrate their gilded garments and lewd accessories in the temple of Juno. But when three hundred of the youths bound together as comrades by a certain sacred oath were living together, separately from other citizens, in pursuit of religion and discipline, suspicions of a secret conspiracy against the commonwealth circled them. Consequently a mob glutted everyone with riot, and when [Pythagoras' followers] had been herded into one building, they rushed to burn it, whereupon sixty died, and the others passed into exile. Thus Pythagoras, driven from Croton in old age, moved to Metapontum and died there. His prestige was so great that people made his house into a temple, and honoured him like a god. This is described by Gnaeus Pompeius Trogus in Book XX, also Quintilian Book IX, even Cicero. Such overwhelming esteem for Pythagoras can be clearly documented that, without question, his influence still flourishes. In Italy he taught during the reign of Servius Tullius, as Livy and Dionysius testify. Philostratus, in the beginning of his *Life of Apollonius of Tyana*, recalled many of [Pythagoras'] words: how he abstained from eating animals, and believed that the soul returns. For this reason he used to say he had been

(1) Aurea carmina Pythagorae (note not numbered in text).

(2) In Pythagora (note not numbered in text).

(3) Lib 6 cap 2 (note not numbered in text).

Euphorbus the Trojan, and that next he had been a peacock, for which reason our Persius calls Pythagoras “peacock.” Iamblichus wrote three books about his sect which survive, on which Simplicius circulated commentaries; both works can be seen in the Vatican library. His own guiding rule was φίλων πάντα κοινά, *Among friends all things are common*.

Michael Neander ed., 1559, *En Lector, Librum Damus Vere Aureum...* Basel, page 17 (f. c1^r).

Pythagoras was truly a philosopher, born on the island of Samos, son of a ring-maker Mnesarchus. Since he blazed with the fiercest passion for learning, he set off to study first in Egypt, and soon after in Babylon. Returning thence he came to Crete and Sparta. Thereafter many ancients followed this example as a traditional custom, as authors have reported of Plato^a, Euripides, Solon, Apollonius of Tyana^b, even Cicero^c, and among the holy fathers Jerome^d; even Galen^e himself, prince of physicians, heeded it when undertaking his voyages of study. When [Pythagoras] had already seen, learned, and accepted many things, and debated with the most learned men about his studies and things he was uncertain of or eager to learn, and when he had discovered that his homeland Samos was oppressed by the tyrant Polycrates^f, he left it behind and went to Croton, a city in Italy, where he took up with ^gMilo of Croton and other famous illustrious men. There, opening a school, he exhorted that city’s youths and citizens, with excellent teachings, to the pursuit of honesty, uprightness and frugality, and other virtues. And the laws by which he directed his disciples, by which rule he himself lived and wished all his people to live, are described by ^hmany: [Diogenes] Laertius, the *Suda* on Pythagoras, Philostratus too in his life of Apollonius, and Iamblichus the philosopher, a student of Porphyry the antagonist of the Christian Fathers, on which Simplicius, the translator of Aristotle, circulated commentaries. Also Cicero, and

About the philosopher Pythagoras and his *Golden Verses*. (These notes are printed in Latin in the margins of the original edition, reproduced here).

- a About Plato’s pilgrimage, and Euripides’, and Solon’s, see Diogenes Laertius’ *Lives of Philosophers*, Plutarch’s *Solon*, and Herodotus Book 1, and Plato’s *Timaeus*.
- b On Apollonius see the 8 books of Philostratus on the *Life of Apollonius [of Tyana]*; likewise [Raffaele Maffei] Volterrano’s *Anthropologia* [i. e. *Commentarii urbani* part II] book 13, and book 2 of [Johannes] Trithemius’s personal letters, in which a summary of the eight books of Philostratus can be read.
- c On Cicero, see Plutarch’s *Cicero*.
- d On Jerome, see the life of Jerome by Erasmus excerpted from his writings, which was printed at the beginning of vol. 1 with his collected works.
- e Book 9 *On the Powers of Simple Drugs*, where he spent time on the land of Lemnos. (The reference is XXI 168–178).
- f Of whom there is a lengthy history in Herodotus book 3.
- g Whom Pausanias, Pliny, Gellius, and Valerius remember, and Galen himself in the book which is an *Exhortation to the Study of the Arts*.
- h Which authors wrote about Pythagoras.

Plutarch, and among Greek Fathers Clement of Alexandria and Philo Judaeus, and Erasmus in the *Adages*, and Lilius [Tifernas], by whom Pythagoras' *Symbols* were interpreted. And which of the ancients does not recall Pythagoras? As if we could not name Livy, nor Justin Martyr, nor Gellius, nor Macrobius, nor even Lucian, Virgil & Ovid the poets. Thus, if any are not satisfied with this account, they can learn more elsewhere about Pythagoras. Yet some attribute to Pythagoras a certain poem, τὸ χρυσᾶ ἐπηκαλούμενον,⁽¹⁾ that is the *Golden Verses* (truly a golden poem), as the *Suda* says in these words: τινὲς δὲ ἀνατιθέασιν αὐτῷ καὶ τὰ χρυσᾶ ἐπη.⁽²⁾ The truth is either that he himself, or possibly the whole Pythagorean school (to which Gellius⁽³⁾ seems to incline), was the author; or alternatively that it used to be a common practice to present moral precepts in brief aphorisms of that sort; or that ancient judgment pronounced those verses most congruent with [Pythagoras'] precepts and his very holy life. All sources have their own opinions on this matter, which we leave undecided in mid-dispute.

(1) Pythagoras' *Golden Verses*.

(2) On Pythagoras (the Greek reads: "Some also attribute to him the Golden Verses" *Suda*, Adler π3120, "Pythagoras," *Suda On Line*. tr. Catherine Roth. 4 April 2002. 26 February 2015 <http://www.stoa.org/sol-entries/pi/3120>).

(3) Book 6 chapter 2.

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