

The Egyptian Sources of Pythagoras' Philosophy: A Study in the African Origin of Greek Philosophy

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Abstract

The influence of Egypt in the development of Pythagoras and his philosophy is well documented. Ancient testimonies recorded that Pythagoras undertook his studies in Egypt. They also referred to the influence of the Egyptian experience in his philosophy. However, there is little attempt to aggregate the Egyptian influence and present them as a systematic whole. This paper traces the Egyptian influence in the philosophy of Pythagoras. It identifies three contributions of Pythagoras' and through method of critical analysis it demonstrates their Egyptian sources.

Introduction

There is a rising appreciation of the importance of Pythagoras to Western philosophy and indeed Western civilization. On this account, he is reputed to have exerted great influence in the entire Western civilization, its science and its philosophy. Recently, Afrocentric scholars in various disciplinary fields, in response to the charge of intellectual laziness against the Africans, have invoked the foundational role of African thoughts via Egypt in the formation of Western philosophy. Most major Pre-Socratic and Socratic philosophers including Thales, Pythagoras, Democritus, Socrates and Plato, among others, were educated in the Egyptian Mystery Schools. Their philosophies were as such a conscious and systematic acculturation of Egyptian philosophy and the spirit of that philosophy into Greek societies.

Ancient Egypt was the model of civilization in antiquity. It was also a turbulent arena due mainly to unending invasion of Egypt by barbarian nations who desired its wealth and progress. For instance, after the death of Pharaoh Ahmose II and within few months of the reign of his successor Psametik III, Cambyses II of Persia invaded Egypt with the aid of Polycrates of Samos in 525 B.C while Pythagoras studied there. He was among the prisoners of war taken by the Persians. "This invasion ended the Twenty-Six Dynasty - the last native dynasty to rule Egypt- and saw Egypt annexed to Achaemenid Persian empire." (Lewis-Highcorrell 399).

The apparent instability of Egypt at the time forced many people out of Egypt and could have prompted the Greek graduates of the Egyptian Mystery Schools to “move Egypt to Greece ” leading to centuries of crystallization of Egyptian philosophic culture in Greece. This movement started with Thales but Pythagoras is regarded as the strongest exemplification of Egyptian influence in Greek Philosophy. This paper seeks to demonstrate the extent of this influence in Pythagoras’ philosophy.

Life of Pythagoras

Pythagoras (570 - 490 B.C) was born in Samos. It was a small independent Island from which Ionia could be seen. He was a student of Thales, the founding figure of Western philosophy and Science. Iamblichus reports that it was Thales who advised Pythagoras to journey to Egypt to undertake a more extensive study of the wisdom of the Egyptians. (6). He spent twenty-two years studying in the Egyptian Mystery Schools.

In Egypt, Pythagoras studied in a number of temples, including the Temple of ON (HELIOPOLIS) which at the time had a reputation for learning similar to that which will latter attain to Alexandria in Ptolemaic period, and at the temple at WAST (THEBES), where he became initiated as a priest. (Lewis-Highcorrell 399)

The initiation of Pythagoras into the Egyptian priesthood was a special privilege. He was the only non Egyptian ever to be so initiated. Even Thales before him and Socrates and Plato who also studied in Egypt after him received no such privilege. With the fall of Egypt in the hands of Cambyses II of Persia, Pythagoras was taken into captivity in Persia. Once freed by the Persians, he undertook some courses of study under the Persian Magis. Unlike the Egyptian schools where wisdom was taught, the Persian Magi consisted mainly of courses of study in religion and magic. The word, magic, is said to have derived from the activities of the Magis. He returned to his native Island in and founded a school which he named Hemicycle, and his classroom was a cave outside the city. He fled Samos again following the death of Polycrates and its subsequent occupation by the Persians. He landed in Croton, an Italian city governed by 1000 oligarchs, in 520 B.C. where he re-established his school.

Studentship in Pythagoras’ school was heavily vetted by Pythagoras who emphasized character and ability to learn as pre-qualifications for admission. Pythagoras would later pay for his strict admission criteria. Kylon, one of the persons denied admission into the school, organized an attack against the school, projecting it as an oligarchic instrument following the collapse of the government of the 1000

oligarchs and the institution of democracy. Once again, Pythagoras fled, this time to Metapontum where he finally died.

Pythagoras school was divided into two: the *Akousmatikoi* and *Mathematikoi*. The *Akousmatikoi* was an outer school where students came to listen to the teachings of Pythagoras and return to their homes. There were no special requirements imposed on this category of students. They could eat meat, sacrifice to the gods, eat beans and do so many other things forbidden to Pythagoras' followers. In *stricto sensu* it is the *Mathematikoi* School that is referred to as Pythagorean School. Members were subjected to a strict mental and moral regimen. They were the true learners of Pythagoreanism. They lived chastely, abstained from meat, and offered no blood sacrifices, never urinated towards the sun, practiced communal living, among other rules of conduct laid down for them by Pythagoras. It was from the practice of this school that the term Mathematics originated, in recognition of the importance they placed on the place of numbers in the universe. Arendt holds that Pythagoras championed the "conviction that mathematical reasoning should serve as a paradigm for all thought." (59).

Pythagoras wrote nothing. Members of his society practiced "autosepha ("he said it") in which all doctrine was attributed to Pythagoras himself." (Anderson 48). The problem with this is the difficulty of deciphering what is authentically Pythagoras' contribution and that which were works of his followers.

Metempsychosis

Metempsychosis also known as transmigration of the soul is the metaphysical idea that grounds the morals of Pythagoras and the group he formed. Burkerts regards the idea as the "one most certain fact in the history of early Pythagoreanism." (Burkert). Metempsychosis is the name given to the belief that a soul inhabits another body of either individual persons or animals in successive periods of time following the bodily death of the individual in whom the soul was previously inhabited. Long lists three conditions of metempsychosis and they include the following: "(a) the place where the soul and its new body dwell must be, at least in part, this world; (b) the new body must be acquired for more than a temporary period; and (c) the soul, which passes from one body to another, must be that which creates an individual" (Long 149). The three conditions listed by Long are faulty. His first claim that the soul united with the body must at least exist in part in this world comes with the impression that the body possesses capacity to exist elsewhere other than this world. As an extended entity, the body's sole abode of existence is the physical world. In

the Platonic idea of the soul, the soul possesses the ability to exist outside the body in the world of form. Aristotle also holds a similar view and maintains that death entails the exit of the soul, which he regards as the form of the body, from the body leading to the dissolution of the body. The soul on exiting the body returns to the world of forms where it came from. The body, therefore, has no capacity to exist anywhere outside the world. Secondly, Long's claim that the new body must be acquired for more than a temporary period makes no sense. The idea of a temporary period beggars understanding and it is at best tautological. The fact of being in the world is defined by its temporality. So to conceive a union of body and soul outside time is impossible. The third point is that the soul, which passes from one body to another, must be that which creates an individual is problematic. It imbues the soul with creative powers and does not account in any way how the soul itself came to be.

In view of the foregoing, it is unlikely that Pythagoras, the best known proponent of metempsychosis would approve of Long's conditions given what they failed to incorporate. An important element of Pythagoras' metempsychosis is immortality of the soul. The soul is created but once created becomes immortal like the Greek gods. The soul is also restless, it is involved in perpetual process of going and coming. Thus, a soul which has left a human body may immediately inhabit the body of a donkey. This is the way to understand Xenophanes' report about Pythagoras' demonstration of his belief on Metempsychosis.

. . . And once, they say, passing by when a puppy was being beaten, he pitied it, and spoke as follows: 'Stop! Cease your beating, because this is really the soul of a man who was my friend: I recognised it as I heard it cry aloud.' (Xenophanes, Fragment 21B 7)

A further analysis of the above citation shows a belief that the soul is the individual. It also shows that the soul remains unchanged irrespective of the nature of the body it is united. This accounts for why Pythagoras recognised the voice of his dead friend. Pythagoras is reputed to be a soul. The citation also raises a question about pains. Is pain the property of the body or that of the soul? Pythagoras tends to think that it is the soul that feels pain. This is because, to be recognisable, the crying being must be continuous. Having exited the previous body which ceases to exist at birth, the soul is what is persistent. It is what continues to exist. Thus, if Pythagoras heard the cry of his friend it is obvious that it is the soul that feels pain and cries. Metempsychosis makes moral demands on how to relate with the individuals. Thus,

Pythagoras forbade all sorts of torture. And this is not limited to human beings. No animal should be tortured since man and animal share the same soul.

Despite the claim that the theory of transmigration of soul was authentically Pythagoras', the origin of the idea lies elsewhere. What is rather authentic about Pythagoras in regard to the theory is its transmission among the Greeks. Even among the ancients, Herodotus gave account of the true origin of the idea.

The Egyptians were also the first to advance the theory that the soul of man is immortal, and that when the body perishes it enters into (eisduesthai) another living creature which comes into being at that moment; and when it has gone round all the land animals and all the sea animals and all the birds, it enters again into the body of a man who is coming into being; and this circumambulation goes on for three thousand years. Some of the Greeks adopted this theory—some earlier, some later—as though it were their own; I know their names, but I do not write them down (85: II. 123=14 A 1).

Herodotus no doubt refers to Pythagoras and others including Empedocles who promoted the view as theirs. Barnes, however, felt that Herodotus was in error in ascribing to the Egyptians the origin of metempsychosis. He holds that the belief was quite well spread among the ancient Greeks of even earlier age (Barnes 81). Xenophanes, Plato, Aristotle, among ancient philosophers who attributed the theory to Pythagoras were in more historically vantage position to know and they all ascribed its origin to Egypt. Indeed, the idea of immortality of the soul was widespread across ancient African cultures including ancient Egypt.

The Conception of Philosophy as Love of Wisdom

Pythagoras sits atop, alongside his teacher, Thales, as founders of two different traditions of ancient Philosophy. While Thales is regarded as the founder of the Milesian School of Philosophy, Pythagoras is reputed as the founder of the Italian School. Among the ancients, philosophers are classified according to the extent to which their philosophy conformed to the thoughts of the two men. However, the invention of the concept, philosophy, is another distinct contribution of Pythagoras. The meaning, love of wisdom, which Pythagoras gave to the term he coined has remained the traditional definition of philosophy (Rosen 183).

Besides coining the term philosophy and giving it etymological meaning as love of wisdom, Pythagoras gave no reason why he chose the term. Philosophers have merely guessed some answers. Hannah Arendt who presented herself as a

contemporary Neoplatonist linked the reason to the focus of philosophy on the divine. The ancient Platonists in a similar manner defined philosophy as “assimilation to God to the extent possible” (Plato, *Theaetetus* 176B). Assimilation to God means, for humans, living at the highest level of life possible to humans, the life of the divine in humans, the life of reason, of which knowledge of the divine represents the highest point.” (O’Meara 3).¹ Arendt holds that the nature of Greek theology made this conception possible. According to her, the Greeks held that:

Men and gods were like each other, both of one kind, drawing breath from one mother; the Greek gods, as Herodotus tells us, had the same *physis* as men; but, though anthrôpophysic, of the same kind, they still, of course, had certain privileged peculiarities: unlike mortals they were deathless and enjoyed an "easy life." Free of mortal life's necessities, they could devote themselves to spectatorship, looking down from Olympus upon the affairs of men, which for them were no more than a spectacle for their entertainment. The Olympian gods' feeling for the world's spectacular quality—so different from other peoples' notions of divine occupations such as creating and law-giving, founding and governing communities —was a partiality they shared with their less fortunate brothers on earth. (Arendt 130).

Philosophy, understood as assimilation to God to the extent possible became a desire to, like the gods, also engage in contemplative life. The *vita contemplativa* is the way of life of the gods, who from their Mount Olympic abode observe the activities of man. The philosopher by engaging in contemplation appreciates the wisdom that is the hallmark of the gods. Thus, if immortality is the reward of the gods for their contemplative engagement, the philosopher, the contemplative man, will also attain immortality.

The Pythagorean metaphysics with its emphasis on transmigration of soul invalidate Arendt's argument that immortality was the goal of the contemplation. This is because the metempsychotic soul is immortal by virtue of its being. The essence of purification is not immortality but elevation in the next cycle of transmigration.

Pythagoras’ education in Egypt holds the key to his entitling of his subject and way of life, philosophy. The Egyptian Mystery School System was administered and lectured by priest-scholars. One of the subjects taught in the School was simply called Wisdom. They were taught by priest-scholars who were exempted from daily

¹ O’Meara, J. Dominic wrote the Introduction to *Syrianus: On Aristotle Metaphysics 3-4*.

lives and who formed a close knit group for the education of the initiates and dissemination of knowledge. Pythagoras' desire to replicate the Egyptian paradigm among the Italians and the Greeks was responsible for the use which Pythagoras put the phenomena described above. For instance, if the Egyptians taught wisdom, he didn't claim to teach wisdom, he rather claim to be a lover of wisdom. If the priest scholars needed a life of leisure to be able to make contribution to the world, Pythagoras formed a society where the cooperation of members would be able to generate excess resources and free time for contemplative activity. But the contemplative activity for the Pythagoras would not be other-worldly. It is world-focus. Ideas generated would be necessary for engineering, ethics and politics, among others. The Egyptian priests whose engineering and architectural works coupled with their ethics formed the basis of the prosperity of that land played great role in the decision made by Pythagoras to name the discipline philosophy.

Mathematics

There is a long list of philosophers who placed great emphasis on Mathematics. This set of thinkers consider Mathematics as the highest form of reasoning “—which deals only with thought-things and needs neither witnesses nor the sensorily given—is based on the age-old distinction between necessity and contingency, according to which all that is necessary, and whose opposite is impossible, possesses a higher ontological dignity than whatever is but could also not be.” (Arendt 59). Plato was so convinced of the preeminence of Mathematics that he made knowledge of it a pre-condition for admission into his philosophy school.

Thales and Pythagoras account for the weight which ancient western philosophy places on Mathematics. “It is not by accident that the beginnings of Greek mathematics are credited to Thales and Pythagoras, both of whom were said to have lived in Egypt.” (Russo 29). Besides direct knowledge gained from studying in Egypt, Pythagoras also learnt invaluable lessons in Geometry from Thales whose student he was and following whose advice he proceeded to Egypt for further studies. Thales' concern was with Geometry which he learnt in Egypt and Eudemus of Rhodes credits him with introducing it in Greece. Hahn writes that:

Thales plausibly learned or confirmed at least three insights about geometry from his Egyptian hosts, and all of them involved diagrams: (1) formulas and recipes for calculating the area of rectangles and triangles, volumes, and the height of a pyramid (i.e., triangulation); (2) from the land surveyors, he came to imagine space as flat, filled by rectilinear figures, all of which were reducible ultimately to triangles to

determine their area; (3) watching the tomb painters and sculptors, he recognized geometrical similarity: the cosmos could be imagined as flat surfaces and volumes articulated by squares, and each thing can be imagined as a scaled-up smaller version (12).

Geometry has a far-reaching influence in Thales that even his metaphysics in which the origin of reality rests on a single substance derived from Egyptian Geometry. It was the fixedness of geometrical diagrams that emboldened Thales to famously “posit an unchanging principle of the whole of nature” (Rioux 384). Eudemus of Rhodes holds that Thales proved that “a diameter divides a circle into two equal parts, and that opposite angles at a vertex are equal.”² Thales’ contemporaries were particularly impatient of the new knowledge which he brought. Plato reported the Thracian maid who made jest of him for falling into a ditch while making calculations about the sky. (Plato *Thaet.* 174a).

The invocation of Thales above serves the purpose of emphasizing the direct influence he had on Pythagoras. However, besides this direct influence of Thales, Pythagoras also undertook his own education in the Egyptian Mystery Schools where he not only encountered the priest-scholars but also experience the pyramids and all the other shapes and diagrams the presence of which made the Egyptians and the Mesopotamians to think in geometrical terms. Thus, on his return from Egypt and following the establishment of his school, Pythagoras took the study of Geometry to a new level. He made the study of Geometry a cornerstone of his entire philosophy especially for the subset of followers regarded as the *Mathematikoi*. Hahn makes a case that for the ancient Pre-Socratic philosophers, Geometry was conceived as a handmaiden of philosophy (5).

Pythagoras Mathematics was influenced by the Geometry of ancient Egypt. The Pythagorean theorem otherwise regarded as the hypotenuse theorem which is attributed to Pythagoras and/or his group, like Thales’ Geometry deals with calculation of areas of triangles and rectangles, and showing the relationship between all the sides. The discovery of Moscow Mathematical Papyrus (MRP) and Rhind Mathematical Papyrus (RMP) in the 19th Century AD which are collections of Egyptian problem texts that date back to 1850 B.C. and 1550 B.C respectively are at least a thousand years older to than both Thales and Pythagoras. The papyruses systematically show that Egyptians had been preoccupied with the relationship between angles.

² These statements by Eudemus (whose work has perished) are reported in Proclus, *In primum Euclidis Elementorum librum commentarii*, 157:10–11; 299:1–3, ed. Friedlein = [FV], I, 79:8–9+13–15, Thales A20.

RMP problems 41–46 show how to find the volume of both cylindrical and rectangular based granaries; problems 48–55 show how to compute an assortment of areas of land in the shapes of triangles and rectangles; problems 56–60 concern finding the height or the *seked* (i.e., inclination of the face) of pyramids of a given square base. Thus the problems included formulas and recipes that showed how to divide seven loaves of bread among ten people (problem 4), how to calculate the volume of a circular granary that has a diameter of 9 and a height of 10 (problem 41), how every rectangle was connected inextricably to triangles that were its parts (problems 51 and 52), as problems for the land surveyors (Hahn 13-14)

Essentially, Pythagoras' occupation with Geometry and angles on his return from Egypt was a continuation of a process which he witnessed in Egypt. Like Thales before him, he led his students into finding his own proofs for claims regarding the angles. There is a recent attempt to discredit Pythagoras' connection with the theorem about the hypotenuse. Scholars who do so hold that the formulaic expression of the theorem – $a^2 + b^2 = c^2$ is algebra traceable to Euclid who lived after Pythagoras. Their argument is that Mathematics could still be in its infancy and possibly did not exist to develop such a complicated system. The discovery of the RMP and MMP which showed the use of the principles in Egypt thousand years before Pythagoras invalidates all such arguments.

Conclusion

The testimony of the ancient Greek philosophers regarding the relationship between their philosophy and that of African (Egyptian) philosophy has come under attack. The continuous discrediting of the ancient testimonies is intended to serve one purpose, maintain the claim of Western hegemony in knowledge production and dissemination. This paper inveighs against all such claims especially as they pertain to the denial of African contribution to the development of Greek philosophy.

Pythagoras is paradigmatic. His influence is also eclectic, stretching from ancient society to the contemporary era. Thus, such a study whose need I have emphasized above requires that he be regarded as the starting point. Thus, I have drawn the relationship between some of his philosophical positions or the positions of the school he formed with the philosophy of ancient Egypt. Consequently, I undertook an examination of the life of Pythagoras. I equally examined some of his

philosophical positions in order to show their Egyptian source. I have also offered new arguments in support of the claims of the paper.

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