

Philosophy in Antiquity: The Greeks

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Introduction

The second half of the first millennium BCE is a very unique time period in the history of human kind. During these 500 years or so civilization as we know it today emerges from its pre-historic and Paleolithic roots across the Mediterranean first with the Greeks and then the Romans, in the Indus valley region (modern day India) and also further to the East in China. Each of these great ancient civilizations evolves almost completely independent of each other, and yet with each of them, from a philosophical perspective at least, we find very similar and almost eerily parallel intellectual timeline, all from 500 BCE to 100/200 CE or so.

In this entire region mankind was flourishing and the old ways of hunter-gatherer societies were giving way to the creation of urban centers and city states, nations in fact that leveraged the domestication of animals and development and widespread use of agriculture, along with various technology revolutions in bronze and metals that provided for advancements in warfare and construction and development, and the of course most importantly the invention and widespread use of writing. Advances system of writing were needed in fact to track, quantify and support all of these advanced developments – to count grain and sheep, keep track of horses and crops, provide a framework for trade and the passage of laws, create inscriptions to honor the dead and proclaim the greatness, the divinity of the rulers and the ruling class. Necessity is indeed the mother of invention and writing in antiquity was no exception to this golden rule.

What we find as well, and what is of primary interest and the topic of this work, is the creation of an educated upper/aristocratic that leveraged these various systems of writing to explore the nature of reality, the relationship to the world of man (nature) and the world of the divine (the gods), and how the fundamental reality of these two seemingly disparate worlds was connected, and what that meant for man. How were they to live in this new world? How were the rulers to govern? What was the basic structure of society and what was the role of the philosopher, the teacher? The first great teachers, philosophers, sages of each of these great ancient civilizations attempted to answer these questions and their respective languages and alphabets were leveraged to codify the various systems themselves.

These intellectual developments followed the path that was laid out by the ancient sages, the ancient shamans and priests that communed directly with the spirits and the gods that preceded them. Those who communed with the spirits and gods directly supposedly and narrated the stories of old that represented the mythology of the ancestors and the great heroes and kings of a distant time. They took the kernels, the seeds of truth, of this ancient wisdom and weaved new and more complex stories that described the nature of the cosmos, man's place in it, and systems

of *metaphysics* – philosophy - that bridged the two worlds. In general all to serve the needs of the common good and society at large.

It is through the words of the great minds of these ancient sages that we can see almost directly into this ancient world. For they were the first to leverage and expand these various writing systems to describe the world around us in a way that had never been done before - both the physical world and the mental world – leveraging the more sophisticated and complex languages (that were spoken) and their associated alphabetized writing systems (that were written). They used these systems of writing, arguably the greatest invention of mankind ever, to not only capture the phonology, the sounds, of various words and concepts and codify the oral traditions that had been handed down for century, millennia even, but also to create a whole new system of knowledge that had never existed before, again what we call today philosophy and what down through the ages has come to be known as science in all its forms. The new system of knowledge that they created in fact could not have existed prior to all of these parallel developments – the advent of civilization, the creation of writing, and the free time and sociological framework to leverage these things toward intellectual development as an endeavor in and of itself.

As one digs into how philosophy emerges in the West, and how Reason, the role of Order in the Cosmos, began to rise in influence at the dawn of civilization (a feature which so notably marked the civilization of Ancient Greece and in turn is the marked characteristic of Western civilization to this day), it becomes evident that this philosophical movement represents not only a somewhat rebellious socio-political force in the region that in turn provides some of the philosophical and metaphysical underpinnings of monotheism as it evolves into Christianity, but it also has profoundly influenced the worldview of the West even to this day, providing the semantic and intellectual framework within which we view the world around us, and within which the branches of science and study exist even to this day.

The ancient Greek philosophers were the first individual to challenge the truth of the mythologies that had so profoundly influenced the ancient civilizations of the East and West, and were the first people to begin to explore the nature of knowledge, what could be known, or perhaps better put what in fact could be known to be, itself, providing us with philosophical and intellectual frameworks which came to shape Western civilization for several thousand years and still remains a profound influence on how we approach knowledge, and scientific study today.

They were the first to systematize and create philosophy itself, the system of learning that today we refer to as *academia* that stands on the shoulders of, and yet is completely independent of, the various mythologies that had served these ancient peoples and cultures for so many millennia prior. They used these new intellectual frameworks to explore, write down and codify, and ultimately teach and pass down learnings in all sorts of domains - in physics, ethics, cosmology, psychology, etc. so that their teachings, their *ideas*, could be captured and handed down and

taught to the next generation of students for them to pick up where their teachers left off and fill in gaps, explain different areas that their teachers left out, to create more coherent and complex intellectual and cohesive structures that could be leveraged again by the next generation to explain the world that man inhabited in a way that was entirely unique and revolutionary compared to the way sages in times past had been capable. The collective advancement of thought of mankind had begun.

From these revolutionary perfect storm of events, the system of philosophy the flourishing of the human intellect, the ontological supremacy of Reason was firmly established and the world dominated by myth and age old tradition was relegated to the past. Before monotheism swept across the Western world, due to the preservation of many of the great early texts and transcriptions of these ancient teachers, we have an opportunity to view the world as they saw it – a *tabula rasa* in fact – that was yet to be marred by religious dogma, and a new mode of living and thinking that could support this new radically different civilized world which mankind now found themselves in was effectively born.

It is within this time period, this period of revolutionary developments across almost all aspects of human life, that we explore in particular the Greek/Hellenic contributions to philosophical and scientific inquiry, contributions that were to have lasting effects in the West on the way societies were governed, on the way people were to live and conduct themselves within society (ethics and morality), on the way knowledge was taught handed down to successive generations, and even the type and categorization of knowledge itself.

In the words and teachings of these ancient great sages we can no doubt see a mirror of ourselves. For these ancient peoples confronted no doubt the same basic struggles and challenges, and enjoyments and pleasures, that we are faced with today. The very same questions that these ancient sages asked we find perplexing us, captivating us, dividing us even, today - *What is the true nature of reality? What is our place in the world? How are we to live and treat our fellow man?*

And yet these ancient sages are not burdened with the weight of Science or Religion and the various constraints that these two pillars of “civilized”, modern man place on our thinking to determine unequivocally what is “right” and “wrong”. They were free in many respects to roam the heights of Mind and yet still live in a world that was so closely connected to Nature, Mother Earth, and the various cultural deities that represented the world around them and to the ancients were still very real beings, in a way that modern man has almost completely forgotten.

And so let us explore the worlds of these first philosophers, these great teachers whose shoulders we stand on, and see how they approached these problems and questions and what answers they came up with, and whether or not their solutions, their systems of belief, have any bearing

on how we might look at the world today, and how we might approach and solve our day to day challenges and problems, with perhaps a fresh and open mind. And we just might find that they have something to offer that none of the grand scientists or religious leaders of today can offer.

About the Work

The content included in this work is intended to focus on the Hellenic, mostly Greek, philosophic tradition that not only influenced the Greek and then Roman (Latin) world in antiquity, but specifically the themes, topics and concepts that had a lasting influence on intellectual and theological development in the West up until the Age of Enlightenment. To this end, the focus is on the Socratic tradition, through Plato and then Aristotle, and then the Stoic tradition whose strong imprint can be found on the early Christian theological tradition, which represents the core seed of Western theological evolution in the West through Judaism, Christianity and then Islam.

While not completely exhaustive, these ancient philosophical schools do represent to a large extent the breadth of the Hellenic philosophical tradition – from the Idealism and Skepticism that was reflected in the Platonic school and the Academy, to the somewhat more materialistic, and certainly more practical, bents of the Peripatetic (Aristotle) and Stoic schools which succeeded the teachings of Plato (~420 – 347 BCE) in the late 5th and early 4th century BCE. These systems of philosophy all fed into and heavily influenced not only the early Christian theologians (Origin, Clement of Alexandria, etc.) but also Gnosticism and early Judaic thought (Philo Judaeus for example), early Christianity no doubt, Muhammad and Islam in the 5th and 6th centuries CE, and in even remained part of the core academic curriculum – the classical education – right through the Middle Ages in the West up into the Enlightenment Era.

In other words, if we can come to a better understanding of how these early Greek philosophical schools viewed the world around them, and why they reached the conclusions they did, which led them to develop fairly sophisticated and well thought out systems of ethics and social governing systems, we can perhaps come to a better understanding of how modern man came to his present worldview. A better understanding of the beginning of our intellectual journey in the West yields a better understanding of where we are in present day and where we might be headed.

To this end we focus not only on cosmological and epistemological issues of these early thinkers – how the world came to be and what constitutes true knowledge, what is “real” – but also the

question of the Soul, and Mind, cognition and the role of Reason itself which sits at the very heart not only of understanding, knowledge, itself but also theology and the relationship of man to his Creator in whatever form one wishes to ascribe to him/her/it. For the world of the divine, the spirits, the gods and the cosmos, and the world of man and nature is no doubt connected via the instrument of the human Mind which shares a very close relationship in ancient times to the Soul¹.

A Word on Sources

We used a variety of sources to come up with this material included herein but two in particular should be called out. The first is *Wikipedia* which although is still not widely accepted as reference material in the academic community provides not only a valuable resource in and of itself, even in the more esoteric and philosophic disciplines that are the topic of this work, but given the medium within which it is consumed – i.e. the Web - provides for the ability to easily jump between topics and view connections between areas of thought and intellectual development that is second to none.

The second source that has proved invaluable for exploring the philosophical systems included in this work is the *Stanford Encyclopedia of Philosophy* (plato.stanford.edu). This on line resource includes detailed research papers on not only the ancient philosophers themselves, but also includes detailed analyses of the various intricate and subtle philosophical questions that they raise and how their original thinking affected intellectual development after them.

Of course primary texts and translations were also used as one must certainly have a relationship with the original works, or at least the ones that are extant, to truly come to an understanding of what these ancient authors were truly trying to say, what the overall intent and purpose of their work was. For the most part they were trying to expand the landscape of knowledge but they also wrote, as all authors do, within a particular time and place in history and understanding this context no doubt allows for a greater understanding of the factors, the influences that guided their work.

¹ This is true not only in the Western theo-philosophical tradition in antiquity but also true to the East in the Vedic tradition which arose and developed independently and in parallel to the philosophical traditions in the West that we are most familiar with and that are the topic of this work.

Of particular note along these lines is the *Perseus Digital Library* (www.perseus.tufts.edu) which includes a plethora of direct translations of many of the early works covered in this text, across all of Roman, Greek and Arabic antiquity in fact, as well as the *Internet Classics Archive* (classics.mit.edu) which includes on line, digital translations of a host Greek and Roman works. Both of these archives were used extensively by the author to become more familiar with the work as well as come to a better understanding of the original text (in Greek primarily) and how various phrases and words could be interpreted.

Furthermore, a detailed Bibliography at the end of this work provides the grounding for further research and reading for anyone that is looking to learn more.

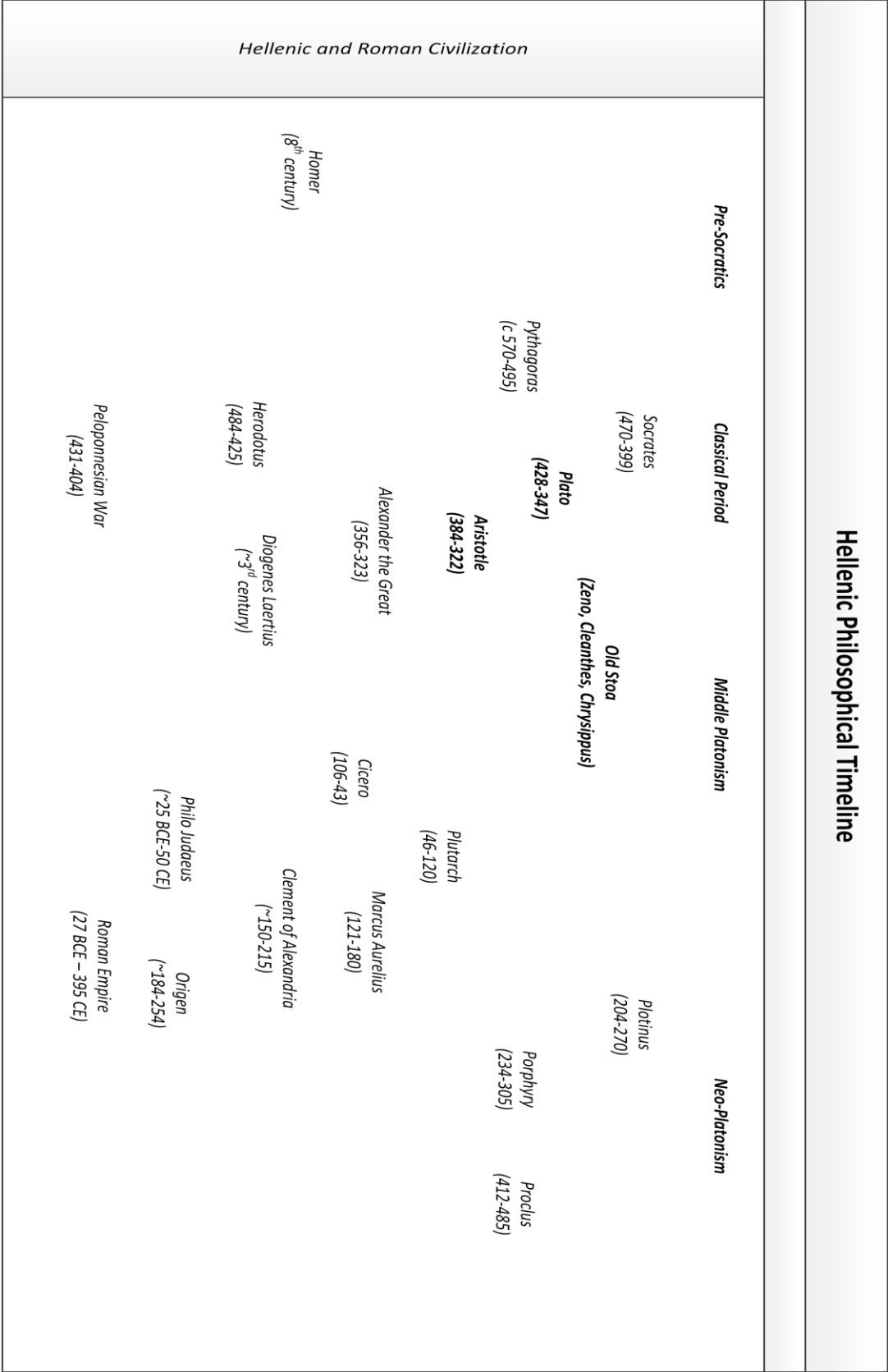
About the Author

The author was born and raised in New York City and received a Bachelor of Arts from Brown University with a concentration in Business Economics and Ancient Studies, his thesis being on Hermeticism and cultural borrowing in antiquity. After his undergraduate studies he spent roughly two years on the professional tennis circuit, spending much of his time honing his craft in Europe. After his unsuccessful endeavor in making a living as a professional tennis player, he (re) entered the professional world as a software developer and systems engineer, acquiring a Masters in Computer Science from the Courant Institute of Mathematical Sciences in New York City and subsequently established himself as a modestly successful executive in the Enterprise Software and Consulting Services industry. At present, the author currently resides in New York City, is the proud father of two children, and in his spare time occasionally contributes to various scientific journals in the area of ancient philosophy along with posts on this blog.

Prior Publications:

- *Snow Cone Diaries: Philosophers Guide to the Information Age* published by Authorhouse in May 2014.
- *The Legacy of Socrates: Ideas, Forms and Knowledge* published in the Journal of Social Philosophy Research, August 1, 2014.
- *Stoic Philosophy: Its Origins and Influence* also published in the Journal of Social Philosophy Research. November, 2014.

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Socrates and Plato: Logos over Mythos

Although Socrates didn't author any works himself, at least none that are extant and survive down to us today, his teachings and life do survive in the indirect accounts of his final days by his most prolific disciples, namely Plato and Xenophon, as well as in indirect accounts and references in the works of other semi contemporary Greek authors such as the Greek satirical playwright Aristophanes², along with of course references in the works of Aristotle, the most prominent student of Plato and an alumnus of the Academy which Plato founded.

Socrates life's end is marked by his execution by Greek authorities for, at least according to Plato, corrupting the minds of youth and challenging the legitimacy of the gods as well as the established authority of the aristocracy of Greek society of the day. Both Plato and Xenophon wrote works describing the last days of Socrates and the trial specifically, where Socrates attempts to defend his position as simply a seeker of wisdom and man of virtue, almost enticing his accusers to sentence him to death rather than banish him to some foreign land.

Socrates then personifies what we conceive of today as the prototypical *philosopher*, despite the contributions of the men that came before him. However what the ancients considered philosophy and what we consider philosophy today, and in turn the field of metaphysics, are conceptually similar but at the same time very different things, the ancient term being much more broadly used to cover a wide variety of topics and branches of thought. The ancient philosophical doctrines of Socrates (as reflected in Plato's earlier work), the works of Plato himself as reflected in his later works that most scholars agree represent Plato's own philosophical and metaphysical beliefs, and the works of Aristotle not only explored concepts which we today would consider fall under the category of philosophy, but also covered topics such as theology, ethics, the underlying principles of logic and reason, as well as what we today would call metaphysics, or the study of the nature of reality and knowledge itself. All of these topics fell under what the ancients termed "philosophy", or more specifically what Aristotle referred to as *epistēmai* (which is typically translated as "sciences" but is the plural of the Greek word for knowledge).

² Socrates plays a significant role in Aristophanes Clouds, a satirical play of the sophist and philosophical traditions of late 5th century BC Athens. He is primarily depicted as a bit of a buffoon in the play, but if nothing else it reflects the broad cultural and socio-political impact that the philosophical and sophist traditions of his day, Socrates and Plato reflecting the most prominent school, and therefore the easiest targets to be made light of.

Socrates: Context and Legend

One of the best indications of the influence of Socrates on the development of philosophy, his ideas being primarily represented by the writings of his best known pupil Plato, is the more modern delineation of philosophical systems into *pre-Socratic philosophy* to the philosophical and metaphysical systems of belief that came after Plato, marked most notably by Aristoteleanism and Neo-Platonism among other philosophical systems. In other words, in terms of the evolution of what the ancients termed *philosophy*, which provides the basis for all of the branches of knowledge that today we would categorize as *science, biology, ethics, metaphysics, socio-political theory*, and even *psychology*, current historians and scholars basically divide philosophical history into pre-Socratic, Platonic, and Aristotelian, and then virtually everything that came after them as represented by the works of Aquinas, Descartes, Kant, and Newton among others.

The gap of 8 or 9 centuries between the Ancient Greek contributions to philosophy until Christianity gained traction and adoption in the Western world illustrates just how broad and far reaching an influence the Ancient Greek philosophers had on the development of the Western mind and even on Western civilization as a whole given the broad scope of the topics covered in their works. Christianity in fact, a tradition which had its own unique underlying mythology and Cosmology (much of which built upon Jewish foundations of course and to a lesser extent Zoroastrian traditions and themes), borrowed from, or from a different perspective superimposed upon, the philosophical and metaphysical systems of the Ancient Greeks. It was not until many centuries, and even millennia later, not until the power of the Church and the associated threat of persecution for non-believers in the Western world began to wane, that the work of Plato and Aristotle could begin to be expanded upon and drawn from in a purely metaphysical, and even scientific, context and it could break free from the bondage of pure religion.

Pythagoras, Thales of Miletus, Heraclitus, Xenophanes, Parmenides, Zeno, Empedocles, Anaxagoras, Leucippus, and Democritus all made contributions to pre-Socratic philosophy thought and were referenced by later philosophers and historians to some extent or another. Although none of the complete works of pre-Socratic philosophers survive today in full, we do have excerpts and references to their work that allude to who these philosophers were and to some extent their metaphysics, theology, and philosophy. References to these pre-Socratic philosophers, quotations as well as summaries of their belief system and philosophies, comes from the surviving works of Aristotle, Plutarch, Diogenes Laërtius, Stobaeus and Simplicius, as well as from early theologians, especially Clement of Alexandria and Hippolytus of Rome.

Furthermore, it is clear from the works of Plato and Aristotle that they were influenced by these pre-Socratic philosophers; even if only within the context of disagree with their fundamental

tenets or conclusions. This can be seen in that many of the pre-Socratic philosophers were characters and/or referenced in Plato's dialogues – Pythagoras and Parmenides for example. Socrates himself, even if he did not espouse to any of the specific doctrines that were laid out by contemporary or pre-historical philosophers, laid the groundwork from which subsequent philosophers could freely teach and proselytize their respective doctrines.

All of these pre-Socratic philosophers, and Socrates himself if we are to believe the portrayal of him by Plato, shared the common principle of the rejection of the hitherto traditional mythological and cosmological explanation of reality that permeated ancient thought, and to a great extent all of them attempted to answer such fundamental questions of the origin of the universe and the nature of reality in a more rational, reasonable fashion as contrasted by the traditions that came before them and were predominant in their time.

The Great Disciple: Plato, the Academy & the "Republic"

Plato was by far the most prominent of Socrates's disciples and was a prolific author, all of his writings however coming after the death of his mentor and therefore at best represent at least one generation removed of the actual life and times of the great martyr who as the story goes sacrificed his life in the name of truth and knowledge³. Plato however is named specifically in the *Apology* by Socrates himself as being present at the day of the trial however, so there is some evidence, albeit disputed by some scholars, that at least some of Plato's accounts of Socrates in his dialogues represent first-hand accounts by direct witnesses of events. But taken as a whole though, the life and times of Socrates, from whose example stemmed the great lives and works of both Plato and Aristotle must be looked at through the rose colored lens of his successors who clearly held him in great esteem.

It must be kept in mind, when looking at and reviewing the authors of Plato and Xenophon in particular who both wrote what are considered to be direct accounts of the last days of Socrates, that the political backdrop was a time of war, a war that affected the entire Greek realm at the time. The Peloponnesian War was the great conflict between Athens and her empire and the Peloponnesian League led by Sparta at the end of the 5th century BC (431 to 401 BC), the

³ Plato lived and wrote in the latter part of the 4th and early part of the third century BC (circa 424 to 327 BC), and in his later life founded the Academy of Athens, the first known institution of higher learning in the Western world that persisted until the beginning of the first century BCE, the same Academy from which Aristotle was schooled. Thirty-six dialogues have been ascribed to Plato, and they cover a range of topics such as love, virtue, ethics, and the role of the philosopher in society.

termination of which marked the end of the golden age of Athens, after the loss of which was relegated to a secondary city-state in the Ancient World.

This conflict raised many questions as to the nature of political systems in general to the great thinkers of the day, as Sparta's form of government differed in many respects to that of Athens, and given the war that had such a significant impact on all of Ancient Greece and its bordering city-states at the time, much of the philosophical works of Plato, as well as Aristotle in fact, analyzed the competing socio-political systems of the day and proffered up opinions, philosophical and otherwise, upon which system of government was the best. It was from this socio-political self-analysis and introspection, stemming from the great perils and destructive force of war, that democracy in its current form was forged.

Therefore the role of the state, the exploration into the ideal form of government, and the role of the philosopher within the state, topics that would not be classically consider as philosophical inquiries today, is the main topic that runs through Plato's *Republic*, arguably one of his most lasting and prolific works. In this text, Plato explores the various forms of government prevalent in ancient Greek society and specifically delves not into the meaning of *justice* and *virtue*. He also, through the narrative of Socrates, explores the role of the philosopher in society, even going so far as to speak of the utopian form of government being one that is led by the "philosopher-king".⁴

In a broader sense, *The Republic* portrays Socrates, along with other various members of the Athenian and foreign elite, discussing the meaning of *justice* and various forms of government, and examines whether or not the *just* man is happier than the *unjust* man by comparing and contrasting existing regimes and political systems, as well as discussing the role of the philosopher in society. All of these themes must have crystallized in Plato's mind and life after the death of his beloved teacher Socrates given the socio-political context within which he was put to death. Plato's concern with the ideal city-state, reflected in the title of the work that was given to it by later historians and compilers of his work on this topic, i.e. *The Republic*, focused on the value and strengths and weaknesses of democracy as it existed in Ancient Greece, again an important topic of the day given the broad impact of the Peloponnesian War on the world of

⁴ *The Republic* (Greek: Πολιτεία, Politeia) is a Socratic dialogue written by Plato around 380 BC concerning the definition of justice and the order and character of the just city-state and the just man. The work's date has been much debated but is generally accepted to have been authored sometime during the Peloponnesian War which took place between Athens and Sparta at the end of the 5th century BC (circa 431 to 404 BC). The Republic is arguably Plato's best-known work and has proven to be one of the most intellectually and historically influential works of philosophy and political theory since the dawn of civilized man. See [http://en.wikipedia.org/wiki/The_Republic_\(Plato\)](http://en.wikipedia.org/wiki/The_Republic_(Plato)) for more detail.

Ancient Greece at the time and the competing forms of government each side of the conflict espoused.

Another example of the importance of the state in the early philosophical works of the ancient Greeks comes from Aristotle's *Politics*. Here Aristotle continues Plato's exploration into various forms of government and their pros and cons, looking specifically at the government of Sparta in one passage, describing it as some combination of monarchy, oligarchy and public assembly/senate of sorts, all of which were combined to balance power, in many respects similar to the balance of power as reflected in the House, the Senate and the office of the President in the United States today.

Some, indeed, say that the best constitution is a combination of all existing forms, and they praise the Lacedaemonian [Spartan] because it is made up of oligarchy, monarchy, and democracy, the king forming the monarchy, and the council of elders the oligarchy while the democratic element is represented by the Ephors; for the Ephors are selected from the people. Others, however, declare the Ephoralty to be a tyranny, and find the element of democracy in the common meals and in the habits of daily life. At Lacedaemon, for instance, the Ephors determine suits about contracts, which they distribute among themselves, while the elders are judges of homicide, and other causes are decided by other magistrates.⁵

So government then, its role and purpose, as well as the role of the individual citizen, were clearly very important topics of the early Greek philosophers and you'd be hard pressed to believe that to at least some extent they influenced the development of various political systems in their day. But their most lasting contribution arguably was their devotion to the pursuit of knowledge and truth for their own sake, as opposed to the pursuit of knowledge to establish the legitimacy of authority and the ruling class which had been the pattern that had existed for centuries if not millennia before them, as well as their creation of institutions of learning from which this new field of study could be practiced and taught, passing its tenets down to later generations not only orally but through a written tradition for further enquiry and analysis by subsequent students, as reflected in the works of Plato and Aristotle which survive to this day.

⁵ *The Politics of Aristotle*, trans. Benjamin Jowett (London: Colonial Press, 1900).

Plato and his Dialogues: Truth by Circumference

The unique characteristic of Plato's writings is, as has been well documented and explored by scholars throughout the ages, is his style, the format within which he explores and presents his ideas – namely through dialogue and what has come to be known as *dialectic*. From the Wikipedia entry on dialectic we are presented with the following definition:

Dialectic (also dialectics and the dialectical method) is a method of argument for resolving [disagreement](#) that has been central to European and Indian philosophy since antiquity. The word dialectic originated in [ancient Greece](#), and was made popular by [Plato](#) in the [Socratic dialogues](#). The dialectical method is [discourse](#) between two or more people holding different [points of view](#) about a subject, who wish to establish the [truth](#) of the matter guided by [reasoned](#) arguments.⁶

The method itself, the *modus operandi* through which Plato presents his teachings, had lasting effects on the development of Western thought, and teaching of philosophy in general, that lasted well throughout the middle ages, continuing to be used as the means of teaching to a greater or lesser extent as it evolved into its more modern form which came to be known as scholasticism which was used as the teaching methodology for many of the earliest universities that cropped from the 11th century onwards up through the Enlightenment era.

The format that Plato uses throughout all of his works is one of the presentation of differing points of view of an argument by various characters in his dialogues in order to explore, and ultimately conclude, various philosophical points. The common thread throughout these dialogues is the supremacy of Reason, the use of logic and argument, to establish various points of view as well as basic philosophical and metaphysical positions, upon which what we know today as Platonic philosophy is presented to the modern reader.

It is commonly assumed that the doctrines and philosophical positions that Plato lays forth in his dialogues represent his philosophical position more or less, and many of the characters and (alternative) points of view and positions that are explored in his dialogues represent to some degree more or less some of the varying philosophical positions that were presented and common place in the philosophical community and era within which Plato writes – for example the views of Anaxagoras, Parmenides, etc who are all presented as characters in his dialogues

⁶ <http://en.wikipedia.org/wiki/Dialectic>

that to at least some degree represent the positions of the various competing philosophical schools that Plato is attempting to refute. Furthermore, in almost all cases Plato's views and positions are presented through the voice of Socrates, who remains a consistent and esteemed character in virtually all of Plato's dialogues through which Plato's philosophical positions, and his arguments to back up these positions, are argued from.

There remains some question of course, and there is surprisingly little debate among scholars around this point, as to whether or not Plato is presenting his own views through the voice of Socrates in his dialogues, or if he is in fact regurgitating Socrates's teachings through his own voice. It is safe to presume that is some combination of the two, or perhaps better put, the voice of Socrates in Plato's dialogues represents Plato's interpretation of the philosophy of Socrates that he learned and understood from him as his disciple, which there is no doubt that he was⁷.

Plato's works are typically referred to as the Socratic Dialogues, not only due to the fact that Socrates is a prominent character and voice of the philosophical tenets which Plato's puts forth, but also alluding to the fact that the assumption is typically made that the philosophical principals that Plato establishes in his dialogues are assumed to be the documentation and transcription of the philosophical principals which he learned from Socrates himself. But outside of second hand accounts, we have no direct works from Socrates so for the most part we know of Socrates and his philosophical beliefs and metaphysics through the words of Plato.

These are important backdrop and contextual items that must be kept in mind when looking at Plato's works and discerning what his "philosophy" truly was, and how much of it was his interpretation of Socrates and how much of it was his own workings and reformulations of the teachings which he presumably received from Socrates himself. We see for example that Aristotle, who studied at Plato's Academy and presumably was a disciple or at the very least a very close student of Plato's, differs from Plato on several key, metaphysical points and principles and it's not until we see Aristotle's work, and the school of philosophy which he founded (the [Peripatetic school](#)) where we find a much more thorough and complete (and certainly what Aristotle would deem more coherent) philosophical system that although shares many common characteristics and principles of his predecessor, differs from him on several key points –

⁷ Plato was present at Socrates's final hearings of judgment, as we find in the Apology, which is Plato's account of the Socrates's defense which he lays out to his Athenian council members where he stands accused of "corrupting the youth and of not believing in the gods of the Athenian state", a crime punishable by death apparently to which Socrates willingly accepts. His reasoning for the acceptance of this judgment is related in the Crito which is an account of a conversation between Socrates and Crito while Socrates awaits his death sentence in his cell which covers the topics of justice and injustice among other things.

differences that were the subject of debate of subsequent scholars for centuries to follow (millennia in fact).

But again, when trying to discern or determine “Plato’s philosophy”, or Platonism in its early stages as it is sometimes referred to, it is important to remember that perhaps Plato’s most lasting contribution to Western thought was not necessarily the philosophy that he presented, the one which he assume he learned from Socrates, but the means by which he presented and explored these philosophical principles – through dialogue and debate, i.e. dialectic – a method which was much more profound and lasting in and of itself than the doctrines and belief systems that we infer to be contained or found in Plato’s works and a method which rested on the supremacy of Reason, and argument and logic to a great extent, over myth or blind faith. A constant theme in all of Plato’s dialogues then is the method of teaching itself, a method which spoke to the power of the mental faculty of man more so than any of his predecessors, predecessors which had for the most part relied on poetry and mythology as tools of exposition and explanation (and to some extent even mysticism in the sense of direct “divine revelation” and the absence of reason or logic from which poetry can be seen to have derived) and the establishment of truth.

It also relevant of course that this method of teaching, the philosophical system of “learning” that Plato is classically given credit for founding, led to the formulation of the first true academic center of learning itself, namely the Academy in Athens which Plato founded circa 387 BCE and persisted for some three centuries after his death, Aristotle of course having studied there for some twenty years before moving on and starting his own school the Lyceum⁸.

Plato, and in turn Aristotle, then should be considered the first *metaphysicians* in the modern day sense of the word, a metaphysician in this sense being defined as someone who attempts to create and describe a framework within which *reality* can be described, as well as the boundaries which *knowledge* and *truth* can be ascertained, the prevailing characteristic of such a quest being the implementation of *reason* and *logic* as opposed to myth or any theological framework which rested on *faith*. They called this search and exploration *philosophy*, but the meaning of the term in Greek implied not only at the study of the true nature of knowledge and reality, but also the source of *virtue* and *ethics* and their relationship to society at large. In the much quoted words of Alfred North Whitehead, a prolific and influential philosopher and mathematician of the early twentieth century:

⁸ http://en.wikipedia.org/wiki/Platonic_Academy

*The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato. I do not mean the systematic scheme of thought which scholars have doubtfully extracted from his writings. I allude to the wealth of general ideas scattered through them.*⁹

Plato's works are classically divided into three categories – his early dialogues, more commonly referred to as the *Socratic dialogues*, which focused on the last days of Socrates along with what are presumed to be a summary of Socrates' philosophy, the *Middle dialogues* where most scholars agree Plato starts to explore his own philosophical systems of belief, and his *Late dialogues* where Plato explores his metaphysics, philosophy, theology and cosmological views in greater detail. It is from Plato's early dialogues that much of what we know about the life and times of Socrates survives to us today.

Plato wrote in *dialectic*¹⁰ form, exploring theoretical and metaphysical concepts by the use of a narrative or dialogue between various characters, some of whom were verifiably historical and others whose place in history is unknown, exploring esoteric and metaphysical topics from varying points of view in order to arrive at some sense of *truth* or *essence* of the topic at hand. Plato believed, and this view was inherited to a certain degree by Aristotle, that the most direct and powerful way to arrive at truth or the essence of an abstract topic was through dialogue, and so almost of all of his writings were drafted in this form. From Plato's perspective, it was only through dialectic, through the bantering and discussion of varying points of view by several individuals, that the truth or wisdom of a certain topic could be revealed. This form of writing and exposition by Plato can be viewed as evidence of Plato's insistence that pure, absolute truth is unknowable, but can be explored or better understood by evaluating all sides of an issue or topic and using reason and logic to arrive at *understanding*, even if absolute truth is elusive.

Socrates plays a significant role in many of Plato's dialogues, and although it's not clear to what extent the narratives that Plato speaks of are historically accurate, Plato does make use of a variety of names, places and events in his dialogues attributed specifically to Socrates and others that lend his dialogues a sense of authenticity, be they historically accurate or not¹¹.

⁹ A. N. Whitehead, *Process and Reality*, p. 39

¹⁰ Dialectic is a form of intellectual pursuit and authorship reflected in a dialogue between two or more persons where various positions on the topic in question are posited and rationally expounded upon, a yielding of the truth via reason and logic where both sides of an argument are explored and stood behind by individuals, be they fictitious or real persons. This is the basic structure of Plato's Socratic Dialogues, a selection of works authored by Plato and Xenophon, the other prominent disciple of Socrates, being so categorized because Socrates is a characterized in the work not due to the content of the dialogues themselves.

¹¹ The exception to this would be Plato's Apology which by all accounts is Plato's attempt to describe the actual events of Socrates trial and Socrates's actual defense and to a lesser extent the Crito which is Plato's description of the final conversation between Crito and Socrates concerning justice where Crito attempts to convince Socrates, unsuccessfully, that he should flee his cell and Athens to avoid his impending execution.

Taken as a whole however, given the philosophical and metaphysical nature of the topics Plato explores in his extant work, historical accuracy isn't necessarily an imperative for him. In other words, Plato is not attempting to provide any sort of historical narrative but attempting to lay out alternative points of view on a variety of topics to yield knowledge and truth regarding esoteric topics that had hitherto been unexplored. In other words, given the *purpose* of Plato's dialogues and extant work, the veracity of the individual beliefs of the persona in his dialogues, or even the accuracy of events which he describes, are of less importance and relevance than the topics which he discusses as well as the means by which he explores the topics – namely dialectic or dialogue.

So although it is safe to assume that the life and teachings of Socrates formed much of the basis of many of the philosophical constructs that Plato covers in his extant work, particularly in his early, or *Socratic* dialogues, just as in the analysis of any ancient literature or culture, the historical and political context within which the works were authored must be considered when trying to determine their import and message.

The Ontological Supremacy of Reason: Plato's "Theory of Forms"

The first systematic treatment of metaphysics in the West can be found in the dialogues of Plato, particularly in the *Timaeus*, but his work clearly drew not only from the ancient cosmological and mythological traditions of the Egyptians and Sumer-Babylonians which pre-dated Hellenic philosophy, but also clearly from the pre-Socratic philosophical traditions represented by Heraclitus, Parmenides, and Pythagoras as well as from the mythological traditions of Homer and Hesiod, even if it was to discount or discredit these schools of thought. It is certainly safe to say that the idea of man being created in the image of God, from which the logos as a theological and philosophical construct effectively comes to represent, goes much further back in antiquity than Plato, even if it is in Plato's dialogues that we find the first real systemic treatment of this connection.

At the time that Plato started his philosophical endeavors, the Greek society and culture at large was imbued with a variety of mystery cults traditions such as the Orphism and the Cult of Dionysus which were both close cousins to the mystery cult traditions presided over by Egyptian priests with whom both Pythagoras and Plato are both to have believed to have studied with. Furthermore, Greek society at the time was heavily influenced by a lively mythic and poetic tradition (*hymnos*) as represented by the prevalence and popularity of the works of Homer,

Hesiod and Orpheus which were shrouded in a world of mystery and tales of heroes from deep antiquity, journeys to the underworld (Hades), and epic battles of the gods from which the race of man ultimately descended. Plato was influenced by all of these sociological and theological forces and even if he didn't reject them outright (at least not in his published works), he attempted to place these ancient belief systems into a much richer intellectual framework from which philosophy, what we today call science, was from then on pursued as its own discipline.

Plato's intention then, no doubt inspired by his teacher Socrates who was sentenced to death for "impiety", or questioning the reality of the old gods and traditions which were such an important part of the Greek culture and society, was not necessarily to reject the old traditions outright, but certainly to question them and place them within a more rational and coherent intellectual framework, a framework which still reflected an underlying belief and faith in the gods and mythology of pre-historic man, but attempted to distinguish between faith and knowledge (science), and provide more rational underpinnings for morality as a whole and even systems of government to which we still owe him a great debt.

Plato's unique contribution to theological development in antiquity then can be viewed as placing the rational faculty of man as the primary tool through which any knowledge of the gods, or reality itself even, should be drawn. His reach extended well beyond the theological domain however, extending into topics such as what could actually be known, psychological questions, systems of ethics and virtue, political philosophy, and most importantly the goal of life itself. Many of his lasting contributions to the philosophic, and later scientific, development in the West are not necessarily the conclusions that he drew or solutions he put forth, but the tools and institutions which he established for their pursuit.

At the heart of Plato's philosophy was the belief in the ontological primacy of the rational faculty of man, Reason, along with the tools of the trade which reflected and were to be leveraged by this faculty - namely dialectic, logic and mathematics - as the means by which the fundamental truths of these ancient mystic traditions could be known or brought to light. He was the first to establish the connection between cosmology, physics and ethics to a degree that had not been done before, a characteristic that became one of the primary characteristics of Hellenic and Roman philosophy and was even followed in the scholastic tradition up until the end of the Middle Ages.

Plato also established a good deal of the semantic framework, in Greek, through which these esoteric, complex and interrelated topics could be discussed and explored, a development whose importance cannot be overstated. For before Plato the language of philosophy was shrouded in myth, analogy, and metaphor, and after Plato all of the Greek philosophic schools and

There are two subdivisions, in the lower of which the soul uses the figures given by the former division as images; the enquiry can only be hypothetical, and instead of going upwards to a principle descends to the other end; in the higher of the two, the soul passes out of hypotheses, and goes up to a principle which is above hypotheses, making no use of images as in the former case, but proceeding only in and through the ideas themselves (510b)...

And when I speak of the other division of the intelligible, you will understand me to speak of that other sort of knowledge which reason herself attains by the power of dialectic, using the hypotheses not as first principles, but only as hypotheses — that is to say, as steps and points of departure into a world which is above hypotheses, in order that she may soar beyond them to the first principle of the whole (511b).¹²

In this section of *The Republic*, which precedes his more graphic metaphor of his Theory of Forms as told in his Allegory of the Cave, albeit wrapped up in the middle of a socio-political work, does represent from a Western standpoint the one of the first prolific and well-articulated forays into the world of metaphysics, i.e. the exploration of the true nature of reality that underlies the world of the senses, and attempts to explain our place in this world and the illusory and shadowy nature of the objects of our perception independent of any religious or theological dogma. It also illustrates the prevalence of geometry and mathematics as a one of the primary means to which this reality can be understood, paving the way for further mathematical conceptions of reality brought forth by Aristotle among others.

In the *Allegory of the Cave*¹³, Socrates describes a group of people who have been chained to a wall in a cave for their whole lives, a chain which does not allow their heads to move and therefore they can only see what is directly in front of their field of vision. There is a fire behind them, which casts shadows upon images and forms that are moved behind the chained souls on the top of a wall, much like a puppet show casts characters across the field of a wooden stage. So the chained souls can see shadows in front of them, or *forms*, projected to the wall in front of them off of the fire that blazes behind them which they cannot see. Hence these people know only shadows and forms their whole lives, although they believe this to be the one and only reality and source of truth for they know nothing else.

Socrates then goes on to explain that a *philosopher* is like a person who is freed from this cave, and is let out into the light of the *sun*, where he sees and realizes that everything that he has thought to be *real*, has only been a shadow of truth and reality. In its simplest interpretation, the Allegory of the Cave can be viewed as outlining and defining Plato's belief in the supremacy

¹² *The Republic* Book 6, translated by Benjamin Jowett.

¹³ Also sometimes referred to as the Analogy of the Cave, Plato's Cave, or the Parable of the Cave.

of forms or ideas over knowledge derived from sensory perception or the material world, i.e. his Theory of Forms, and taken one step further can be interpreted to mean that Plato is espousing a doctrine of the illusory nature of reality much like the Vedic tradition and its concept of Maya.

Plato's ethics and worldview centered on this Theory of Forms, or Ideas as reflected by the *Allegory of the Cave* and his *analogy of the divided line*. His belief in the immortality of the soul and its superiority to the physical body, the idea that evil was a manifestation of the ignorance of truth, that only true knowledge can be revealed by true virtue, all of these tenets stemmed from this idea that the abstract form or *idea* of a thing was a higher construct than the physical thing itself, and that the abstract Form of a thing was just as true and real, if not more so, than the concrete thing itself from which its Form manifested.

The Timaeus: Universal Origins Revisited

It is in the *Timaeus* however, one of the later and more mature works of Plato where he expounds upon his view on the nature of the divine, the source of the known universe (cosmological view), as well as the role of the Soul in nature. And although Plato, and Socrates as represented by Plato's earlier works, rejected the mythological and anthropomorphic theology that was prevalent in Ancient Greece, Plato does not completely depart from the concept of a theological and divine or supra-natural creator of the known universe, at least as reflected in the words of *Timaeus* in the dialogue that bears his name.

In many respects, the ideas and postulates of the *Timaeus* represent an expansion on Plato's Theory of Forms which he introduces in *The Republic* via his Allegory of the Cave. In the *Timaeus*, Plato makes a distinction between the *physical* world which is subject to change, and the *eternal* and *changeless* world which can only be apprehended by use of the mind and reason, i.e. is not perceivable by the senses directly. He also attempts to establish via a logical argument that the world and nature itself are the product of the intelligent design of some creator, and that mortals, given their limitations, can conceive only of that which is probable or "likely" and that the essential truth is perhaps unknowable. The passage itself in the *Timaeus* is profound enough to quote in full.

First then, in my judgment, we must make a distinction and ask, What is that which always is and has no becoming; and what is that which is always becoming and never is? That which is apprehended by intelligence and reason is always in the same state; but that which is conceived by opinion with the

help of sensation and without reason, is always in a process of becoming and perishing and never really is. Now everything that becomes or is created must of necessity be created by some cause, for without a cause nothing can be created. The work of the creator, whenever he looks to the unchangeable and fashions the form and nature of his work after an unchangeable pattern, must necessarily be made fair and perfect; but when he looks to the created only, and uses a created pattern, it is not fair or perfect. Was the heaven then or the world, whether called by this or by any other more appropriate name—assuming the name, I am asking a question which has to be asked at the beginning of an enquiry about anything—was the world, I say, always in existence and without beginning? or created, and had it a beginning? Created, I reply, being visible and tangible and having a body, and therefore sensible; and all sensible things are apprehended by opinion and sense and are in a process of creation and created. Now that which is created must, as we affirm, of necessity be created by a cause. But the father and maker of all this universe is past finding out; and even if we found him, to tell of him to all men would be impossible. And there is still a question to be asked about him: Which of the patterns had the artificer in view when he made the world—the pattern of the unchangeable, or of that which is created? If the world be indeed fair and the artificer good, it is manifest that he must have looked to that which is eternal; but if what cannot be said without blasphemy is true, then to the created pattern. Every one will see that he must have looked to, the eternal; for the world is the fairest of creations and he is the best of causes. And having been created in this way, the world has been framed in the likeness of that which is apprehended by reason and mind and is unchangeable, and must therefore of necessity, if this is admitted, be a copy of something. Now it is all-important that the beginning of everything should be according to nature. And in speaking of the copy and the original we may assume that words are akin to the matter which they describe; when they relate to the lasting and permanent and intelligible, they ought to be lasting and unalterable, and, as far as their nature allows, irrefutable and immovable—nothing less. But when they express only the copy or likeness and not the eternal things themselves, they need only be likely and analogous to the real words. As being is to becoming, so is truth to belief. If then, Socrates, amid the many opinions about the gods and the generation of the universe, we are not able to give notions which are altogether and in every respect exact and consistent with one another, do not be surprised. Enough, if we adduce probabilities as likely as any others; for we must remember that I who am the speaker, and you who are the judges, are only mortal men, and we ought to accept the tale which is probable and enquire no further.¹⁴

Plato then goes on, through the narrative of *Timaeus* in the dialogue, to describe the establishment of order by what he refers to as a divine craftsman, *dēmiourgos*, applying mathematical constructs onto the primordial chaos leveraging the four basic elements – earth, air, fire, and water – to generate the known universe, or *kosmos*. Note that the view espoused by *Timaeus* is that the world was not created by chance but by deliberate intent of the *intellect*, *nous*, as represented by the divine craftsman.

¹⁴ Benjamin Jowett translation. From <http://classics.mit.edu/Plato/timaeus.html>.

Although one might conclude that this would imply Plato's belief in an anthropomorphic principle of creation, akin to our Judeo-Christian God, there is no evidence that Plato would have been exposed to that theology as he lived some 4 or 5 centuries before Jesus and the Judaic theology was not nearly so wide spread in the centuries before Christ. Furthermore, one of Plato's underlying premises for all of his work, is that the principles of reality or the known universe are most certainly worth exploring, again via dialogue and dialectic, but that absolute truth or knowledge is not something that he attempts to be putting forth, and in fact that absolute knowledge and facts are comprehensible by metaphor or analogy at best.

In the *Timaeus*, Plato attempts to describe the nature of the soul and its purpose within the context of this creative universe, describing the *kosmos* as the model for rational souls to emulate and try to understand, restoring the souls to their original state of balance and excellence. Therefore Plato, although clearly establishing the supremacy of reason and rationality in the search for truth and the nature of universe, as well as a mathematical and geometrical framework from which this demiurge crafted the world which permeates much of the *Timaeus*, did not completely abandon *theology* in his world view.

Theology, in an anthropomorphic context, was the source from which the natural world was born in Plato's view, even though he points directly to the fundamental unknowable nature of the universe, stating that we can only know what it is "like" rather than its true nature. Furthermore, by establishing the critical and comprehensive role of the soul, both of an individual and for the world at large, Plato rooted his ethical and moral framework within his cosmological narrative, i.e. *a reason to be good* that did not rely on a concept of an afterworld or hell as motivation.¹⁵

¹⁵ For a more comprehensive look at the Plato's *Timaeus* and its import, see the Stanford Encyclopedia entry, Plato's *Timaeus*, which can be found at <http://plato.stanford.edu/entries/plato-timaeus/>.

Aristotle: *Metaphysics* & the Alternate Truth

Plato's most famous student by far was Aristotle, who is best known for his work on formalizing some of the basic principles of *logic* and *reason*, as well as a further development of the incorporation of mathematical concepts into philosophy and metaphysics among other things. He is also known for being the tutor for Alexander the Great, the great Greek empire builder of the 4th century BC, although the extent of the influence that he had on Alexander is debated by scholars.¹⁶

It is important to keep in mind when studying Aristotle that he was a student at Plato's Academy for some twenty years and although he diverges from Plato's philosophy in some very specific points and areas, and in fact takes pains to point out the shortcomings of Plato's philosophy in some cases, he nonetheless was heavily influenced by Plato's philosophy as well as his mode of teaching. He was a product of Plato's doctrines and his mode of teaching in fact and it is easy to focus on the differences between their systems of philosophy and forget that it is within Plato's school itself that Aristotle's philosophy and metaphysics are born¹⁷.

The term *metaphysics* is first associated with Aristotle as the title of one of his works on the subject, although this was not a word that Aristotle used or titled any of his works himself, but was coined by later editors of his work who viewed the material in *Metaphysics* as that which came after (meta), or should be studied after, his work on *Physics*. Aristotle called the subject matter in question *first philosophy* or the study of that which defines that which is (specifically the term he uses is *being qua being* which as you can imagine is difficult to translate directly into English), but the term metaphysics has stuck over the centuries and has taken on to be a much more specific meaning in modern day usage as the fields of science, philosophy, biology, etc. have evolved into their own separate disciplines.

Just as Plato's work covered much more than what is today considered philosophy, Aristotle's extant literature explored many concepts outside of the realm of what we would classify as metaphysics or philosophy as well, topics such as biology, physics, logic, mathematics, and even geology. He also explored more in depth than Plato such concepts that relate to classical physics such as theories of *motion* and *causation*, setting the stage for centuries of analysis and thought

¹⁶ Aristotle is known to have been Alexander's tutor for at least two years, from when Alexander was 13 to 15, but then Alexander was commissioned to the Macedonian army and therefore any later influence by Aristotle is brought into question.

¹⁷ In later centuries in fact, with the work of Plotinus and Porphyry in particular (as illustrated in the *Enneads*), the philosophies of Plato and Aristotle are looked upon as complementary and not altogether inconsistent. Hence the name given to the *Enneads*, classically considered to be part of the Platonic tradition proper, in Muslim philosophical circles as the *Theology of Aristotle*.

which culminated in the branching off of science and empirical method from philosophy as reflected in the works of Descartes and Newton some two millennia later.

There are thirty-one surviving works that are attributed directly to Aristotle by modern scholars sometimes referred to as the *Corpus Aristotelicum*. Throughout these works, he refers to the variety of fields of research that he studies and writes about as *epistêmai*, or “sciences”. Although *epistêmai* is typically translated into English as “knowledge”, in the context of Aristotle’s work the word is classically translated to “science”, science in the broader and more modern sense of the term, e.g. *the sciences*. Note that it wasn’t until much later in history, not until the end of the Renaissance in the 17th and 18th centuries, that *scientific method* transformed what Aristotle deemed *natural philosophy* into an empirical activity whose basis derived from experimental results, thereafter distinguishing *science* from the rest of philosophy proper and the term *science* coming to mean those fields of knowledge and study that could be verified *empirically* by means of experimentation. Thereafter *metaphysics* denoted philosophical enquiry of a non-empirical character into the nature of existence.¹⁸

Although classification and grouping of Aristotle’s extant work is open to interpretation, for the most part it is agreed that Aristotle divided these “sciences”, into three basic categories, from which all of his philosophy and world view is structured. The first category, and the one of most interest within the context of inquiries into the historical development of theology and its divergence into philosophy and science proper, is what Aristotle refers to as the *theoretical sciences*, or what Aristotle calls *first philosophy*.

Aristotle’s first philosophy includes his work in metaphysics, philosophy and theology, and also includes what he calls the *natural sciences* or *natural philosophy* which is reflected in his research and analysis in fields such as biology, astronomy, and what we would today call physics (e.g. the analysis of bodies of motion and their relationships in time and space) all of which have a more empirical basis as juxtaposed with his metaphysics which is purely theoretical in nature¹⁹.

¹⁸ The branch of philosophy called Epistemology stems from the same root as *epistêmai*, i.e. meaning “knowledge” or “understanding” combined with *logos*, meaning “study of”. This field of study is concerned with the nature and scope of knowledge itself, and arguably is the best description of Aristotle’s work in toto. Epistemology questions what knowledge is, how it is acquired, and to what extent it is possible for a given subject or entity to be known. The term was introduced by the Scottish philosopher James Frederick Ferrier (1808–1864) and the field is sometimes referred to as the theory of knowledge. See <http://en.wikipedia.org/wiki/Epistemology> for more details.

¹⁹ Prior to the modern history of science, scientific questions were addressed as a part of metaphysics known as natural philosophy. The term science itself meant “knowledge” of, originating from epistemology. The scientific method, however, transformed natural philosophy into an empirical activity deriving from experiment unlike the rest of philosophy. By the end of the 18th century, it had begun to be called “science” to distinguish it from philosophy. Thereafter, metaphysics denoted philosophical enquiry of a non-empirical character into the nature of existence. Some philosophers of science, such as the neo-positivists, say that natural science rejects the study of metaphysics, while other philosophers of science strongly disagree.’ From <http://en.wikipedia.org/wiki/Metaphysics>

His second category of “science” he called *practical science*, which includes the analysis of human conduct and virtue and its effect on society at large, or ethics from both a personal and societal perspective. Much of his work in this area built off of the foundation provided by his teacher Plato, in his *The Republic* for example. The third classification or area of research of Aristotle was what he termed the *productive sciences*, which included exploration into such topics as rhetoric, agriculture, medicine and ship building as well as the arts of music, theater and dance²⁰.

The First Mover vs. the Divine Craftsman

Aristotle however, was openly critical of Plato’s theory of Forms and he argues for its incoherence specifically in a passage in *Metaphysics*, out of which emerge his influential and lasting philosophical doctrines of *hylomorphism* and *causality*, hallmarks of Western philosophy well into the Middle Ages.

The fact, however, is just the reverse, and the theory is illogical; for whereas the Platonists derive multiplicity from matter although their Form generates only once, it is obvious that only one table can be made from one piece of timber, and yet he who imposes the form upon it, although he is but one, can make many tables. Such too is the relation of male to female: the female is impregnated in one coition, but one male can impregnate many females. And these relations are analogues of the principles referred to.

This, then, is Plato's verdict upon the question which we are investigating. From this account it is clear that he only employed two causes: that of the essence, and the material cause; for the Forms are the cause of the essence in everything else, and the One is the cause of it in the Forms. He also tells us what the material substrate is of which the Forms are predicated in the case of sensible things, and the One in that of the Forms—that it is this the duality, the "Great and Small." Further, he assigned to these two elements respectively the causation of good and of evil; a problem which, as we have said, had also been considered by some of the earlier philosophers, e.g. Empedocles and Anaxagoras. (Tredennick H, 1989 [988a])

²⁰ There are a variety of ways to categorize Aristotle’s extant works but this categorization seems most intuitive and is taken from the Standard Encyclopedia of Philosophy entry, Aristotle.

But the passage continues and Aristotle connects the dots between his rational deduction of the existence of a final cause, purpose, of the physical universe - his *first mover* - and the goodness of the contemplative life which is of its likeness, the relationship of mind and the objects of contemplation (surprisingly reminiscent of Kant), and his definition of God as the “most good and eternal”, taking as it were a specific position in the whole *which came first, the chicken or the egg* problem.

There is something which is eternally moved with an unceasing motion, and that circular motion. This is evident not merely in theory, but in fact. Therefore the "ultimate heaven" must be eternal. Then there is also something which moves it. And since that which is moved while it moves is intermediate, there is something which moves without being moved; something eternal which is both substance and actuality.

Now it moves in the following manner. The object of desire and the object of thought move without being moved. The primary objects of desire and thought are the same. For it is the apparent good that is the object of appetite, and the real good that is the object of the rational will. Desire is the result of opinion rather than opinion that of desire; it is the act of thinking that is the starting-point. Now thought is moved by the intelligible, and one of the series of contraries is essentially intelligible. In this series substance stands first, and of substance that which is simple and exists actually. (The one and the simple are not the same; for one signifies a measure, whereas "simple" means that the subject itself is in a certain state.) But the Good, and that which is in itself desirable, are also in the same series; and that which is first in a class is always best or analogous to the best.

That the final cause may apply to immovable things is shown by the distinction of its meanings. For the final cause is not only "the good for something," but also "the good which is the end of some action." In the latter sense it applies to immovable things, although in the former it does not; and it causes motion as being an object of love, whereas all other things cause motion because they are themselves in motion. Now if a thing is moved, it can be otherwise than it is. Therefore if the actuality of "the heaven" is primary locomotion, then in so far as "the heaven" is moved, in this respect at least it is possible for it to be otherwise; i.e. in respect of place, even if not of substantiality. But since there is something—X—which moves while being itself unmoved, existing actually, X cannot be otherwise in any respect. For the primary kind of change is locomotion, and of locomotion circular locomotion; and this is the motion which X induces. Thus X is necessarily existent; and qua necessary it is good, and is in this sense a first principle. For the necessary has all these meanings: that which is by constraint because it is contrary to impulse; and that without which excellence is impossible; and that which cannot be otherwise, but is absolutely necessary.

Such, then, is the first principle upon which depend the sensible universe and the world of nature. And its life is like the best which we temporarily enjoy. It must be in that state always (which for us is impossible), since its actuality is also pleasure. (And for this reason waking, sensation and thinking are most pleasant, and hopes and memories are pleasant because of them.) Now thinking in itself is

concerned with that which is in itself best, and thinking in the highest sense with that which is in the highest sense best. And thought thinks itself through participation in the object of thought; for it becomes an object of thought by the act of apprehension and thinking, so that thought and the object of thought are the same, because that which is receptive of the object of thought, i.e. essence, is thought. And it actually functions when it possesses this object. Hence it is actuality rather than potentiality that is held to be the divine possession of rational thought, and its active contemplation is that which is most pleasant and best. If, then, the happiness which God always enjoys is as great as that which we enjoy sometimes, it is marvellous; and if it is greater, this is still more marvellous. Nevertheless it is so. Moreover, life belongs to God. For the actuality of thought is life, and God is that actuality; and the essential actuality of God is life most good and eternal. We hold, then, that God is a living being, eternal, most good; and therefore life and a continuous eternal existence belong to God; for that is what God is.

Those who suppose, as do the Pythagoreans and Speusippus, that perfect beauty and goodness do not exist in the beginning (on the ground that whereas the first beginnings of plants and animals are causes, it is in the products of these that beauty and perfection are found) are mistaken in their views. For seed comes from prior creatures which are perfect, and that which is first is not the seed but the perfect creature. E.g., one might say that prior to the seed is the man—not he who is produced from the seed, but another man from whom the seed comes.

Thus it is evident from the foregoing account that there is some substance which is eternal and immovable and separate from sensible things; and it has also been shown that this substance can have no magnitude, but is impartible and indivisible (for it causes motion for infinite time, and nothing finite has an infinite potentiality; and therefore since every magnitude is either finite or infinite, it cannot have finite magnitude, and it cannot have infinite magnitude because there is no such thing at all); and moreover that it is impassive and unalterable; for all the other kinds of motion are posterior to spatial motion. Thus it is clear why this substance has these attributes.

We must not disregard the question whether we should hold that there is one substance of this kind or more than one, and if more than one, how many; we must review the pronouncements of other thinkers and show that with regard to the number of the substances they have said nothing that can be clearly stated. The theory of the Ideas contains no peculiar treatment of the question; for the exponents of the theory call the Ideas numbers, and speak of the numbers [20] now as though they were unlimited and now as though they were limited by the number 103; but as for why there should be just so many numbers, there is no explanation given with demonstrative accuracy. We, however, must discuss the question on the basis of the assumptions and distinctions which we have already made.²¹

²¹ Aristotle, *Metaphysics* Book XII, 1072a-1073a. Aristotle. Aristotle in 23 Volumes, Vols.17, 18, translated by Hugh Tredennick. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1933, 1989. <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0052%3Abook%3D12%3Asection%3D1072b>

Later interpreters of Plato's teachings however, the so-called Neo-Platonists, starting with Plotinus (c. 202 – 270 CE) and his student and editor Porphyry (c. 234 – c. 305 CE) culminating with Proclus (412 – 485 CE) some six or seven centuries after Plato, viewed the philosophies of Aristotle and Plato to be much more aligned and consistent with each other than certainly Aristotle himself did. [These later interpreters of the teachings of Plato supposedly relied on the “unwritten teachings” of Plato as the basis for this more inclusive philosophic view, teachings that were supposedly passed down from Plato himself to his students and followers in an oral tradition that was independent and somewhat different than the public, written teachings reflected in his dialogues.]

These later interpretations and philosophical teachings of the Neo-Platonists which evolved alongside of early Christianity, carried forward the ancient threads of mysticism and esotericism along with their focus on philosophy proper, putting forth a doctrine of universal emanation from the One (or the “Good” which is what it is referred to as in the *Timaeus* which is equivalent to the Form of Forms) via “Nous”, or the divine intellect, roughly equivalent to the role played by Plato's Demiurge which produces the World Soul in the *Timaeus* and metaphysically equivalent to the Logos in both the Stoic and (early) Christian theological tradition which provides the metaphysical and mystical bridge between the Creator and his creation - the bridge between the World Soul and the individual Soul.

Part of Aristotle's criticism however, in fact arguably one of his biggest criticisms of Plato's system of philosophy is that it, for lack of a better description, rested on faulty metaphysical and intellectual ground. Although his Theory of Forms and his means of teaching and learning, i.e. dialectic, were sound and represented advancement and progress based off of the pre-Socratic schools according to Aristotle, Plato's system of philosophy still left much open to question and had lacked definitional certainty in many areas.

To this end, Aristotle's teachings – in fact what he was perhaps best known for in antiquity and even deep into the Middle Ages as part of the core curriculum of Scholasticism – included much material on analysis, logic, reasoning and metaphysics, much more so than any of his predecessors in fact and setting a very high bar for all philosophers who followed him in terms of the breadth, scope and coherence of his complete works.

Aristotle's Physics: Causality & Substantial Form

Before being able to classify and determine substance and reality for example (physics), Aristotle was compelled to define quite clearly, at least as clearly as he possibly could and more clearly than his teacher Plato, how one can discern truth from falsehood, and how one could classify anything really, leading not only to the establishment of the cornerstone of teachings of Logic and Reason in antiquity (his works that were included in the *Organon* which consisted of 6 treatises dealing with reason and logic), but also his *Metaphysics* and *Physics* which built off of these building blocks to establish the boundaries of natural science and philosophy as we know them today.

Aristotle's notion of knowledge, his epistemology, is based upon causation. That is to say, to understand a thing, a substance, an entity, Aristotle posits that one must look to understand the reasons as well as the method for its coming into existence, after which full and complete understanding of a thing can be attained. Aristotle's four causes are the material, the formal, the efficient, and the final, speaking to the his fundamental division of reality into matter and form (the first two causes), the importance of change and motion in his physics/metaphysics (the efficient cause) as well the incorporation of meaning and purpose (teleology) directly into his epistemological system. From the Stanford Encyclopedia of Philosophy's entry on *Aristotle On Causality* we have:

In Physics II 3 and Metaphysics V 2, Aristotle offers his general account of the four causes. This account is general in the sense that it applies to everything that requires an explanation, including artistic production and human action. Here Aristotle recognizes four types of things that can be given in answer to a why-question:

The material cause: "that out of which", e.g., the bronze of a statue.

The formal cause: "the form", "the account of what-it-is-to-be", e.g., the shape of a statue.

The efficient cause: "the primary source of the change or rest", e.g., the artisan, the art of bronze-casting the statue, the man who gives advice, the father of the child.

The final cause: "the end, that for the sake of which a thing is done", e.g., health is the end of walking, losing weight, purging, drugs, and surgical tools.

All the four (types of) causes may enter in the explanation of something.²²

²² Aristotle on Causality by Andrea Falcon, published in the Spring 2014 edition of the Stanford Encyclopedia of Philosophy. Pg 3. Full article can be found here: <http://plato.stanford.edu/entries/aristotle-causality/>.

The material and formal causal elements of this model are born out of the importance that Aristotle places on the division of reality based upon form and substance, or *form* and *matter*²³. A division of reality that perhaps is best understood as an enhancement, a further elucidation of, Plato's Theory of Forms which allows for the *metaphysics of change* to be incorporated quite extensively and comprehensively into his metaphysics, a feature that is lacking in Plato's philosophy, and which allows Aristotle to lay the intellectual foundations of the natural sciences which is essentially the study of that which is subject to change. Form in Aristotelian doctrine is that which gives shape to matter, is the source from which potentiality yields actuality, and in turn is the intellectual and guiding principle of matter – again a significant enhancement of and broadening in scope of Plato's Forms, with the addition of a complete metaphysical model of what matter and substance are, that which could be known to exist²⁴.

Note that this broad range of topics that Aristotle explored, all of which he clearly felt strongly required further examination and analysis relative to the work of his predecessors, covered not only how the world is to be viewed or framed, with respect to identifying those qualities or attributes that described *reality* or *being*, i.e. his metaphysics, but also the foundations for society at large, ethics and virtue, as well as establishing the framework within which natural philosophy could be analyzed and explored, i.e. his elaboration and exploration of the principles of *reason* and *logic* which bled into geometry and mathematics. All of these fields of research were related from his perspective, just as they were by his predecessor Plato. One could not simply just create a logically framework for reality in and of itself, one needed to provide the framework for ethics and the relationship of the individual with the state and society within which he lived, and this connection needed to be well established in the metaphysical framework which described reality, and in turn mankind's place in it. In other words, one must look at Aristotle's extant work in toto to come to a complete understanding of how his metaphysics and world view related to his sociological and cosmological stances, for all the pieces of his metaphysical framework fit together.

In order to provide the theoretical and logical framework within which all of the sciences could be explored and established, Aristotle also authored many works on what we might call the basis of *logic* or *reason*. These constructs, which he expounds in his *Categories*, which provides his stratification of the building blocks of his metaphysical framework, as well as his treatises *Prior Analytics* and *Topics* where he delves deeply into the building blocks of analysis and reason itself,

²³ This is typically referred to in the literature on Aristotle as *hylomorphism*, or the theory that substance is defined as a dual compound of matter and form – see <http://en.wikipedia.org/wiki/Hylomorphism>.

²⁴ For a more complete view of Aristotle's notion of substance, or what he refers to as "being qua being", see <http://snowconenyc.com/2014/02/15/aristotle-and-epicureanism-substance-knowledge-and-the-atom/>.

all fall into this category. His works in this area are typically categorized as the *Organon*, which comes from the Greek word for “tool”, signifying its foundational basis for the rest of Aristotle’s metaphysics and philosophy. In today’s nomenclature, these works could be loosely classified as the works which represent Aristotle’s *epistemology*, or the branch of philosophy concerned with the nature and scope of knowledge itself, or that which can be known.

His *Category Theory*, as it is typically referred to, is covered at length in his treatise entitled *Categories*. This basic framework of reality forms the foundation of his metaphysics so it’s important to have some idea as to what the different categories or the basis of reality are from his perspective, and what their relationship to each other is. The list of categories is meant to be exhaustive, in the sense that realistic construct must fall into one or more of the categories that he outlines and in turn anything that one would deem to be “real” must be able to be described through some articulation of its relationship to his Category Theory²⁵. Aristotle divides the known world up into 10 different conceptual groups, the most important of which was his concept of substance, or *ousia*. These categories then provide the building blocks upon which all of his sciences, or *epistêmata*, are constructed. Below is an excerpt from *Categories* where he outlines not only what he considers to be his exhaustive list of “things” which are, or things which *exist*, but he also calls out the critical nature of that which is typically translated as *substance*, or *ousia* in Greek.

Of things said without combination, each signifies either: (i) a substance (ousia); (ii) a quantity; (iii) a quality; (iv) a relative; (v) where; (vi) when; (vii) being in a position; (viii) having; (ix) acting upon; or (x) a being affected. (Cat. 1b25–27)

All other things are either said-of primary substances, which are their subjects, or are in them as subjects. Hence, if there were no primary substances, it would be impossible for anything else to exist. (Cat. 2b5–6)

Translating *ousia* to “substance” in English does not express the full meaning of the term the way Aristotle intends however, and given the critical importance of this term in Aristotle’s metaphysics and philosophy, and in turn Aristotle’s influence on Western philosophy, science and metaphysics over the ensuing centuries, it is worth exploring this term *ousia* and how it’s

²⁵ Note that despite the critical role that Aristotle’s Category Theory plays in his metaphysics and world view, he does not anywhere describe the rational foundation as to why the world should be broken up into the ten categories that outlines. This of course leaves much of his metaphysics open to criticism by later scholars and interpreters of his work given the lack of rational underpinning for such a critical metaphysical construct that permeates virtually all of his extant literature.

relationship to its Latin derivative *substantia* or *essentia*, from which its English counterpart *substance* originates.

Ousia (οὐσία) is the Ancient Greek noun formed on the feminine present participle of εἶναι (to be); it is analogous to the English participle *being*, and the modern philosophy adjectival *ontic*. *Ousia* is often translated (sometimes incorrectly) to Latin as *substantia* and *essentia*, and to English as *substance* and *essence*; and (loosely) also as (contextually) the Latin word *accident* (*sumbebekós*).

Aristotle defined *protai ousiai*, or “primary substances”, in the *Categories* as that which is neither said of nor in any subject, e.g., “this human” in particular, or “this ox”. The genera in biology and other natural kinds are substances in a secondary sense, as universals, formally defined by the essential qualities of the primary substances; i.e., the individual members of those kinds.

Much later, Martin Heidegger said that the original meaning of the word *ousia* was lost in its translation to the Latin, and, subsequently, in its translation to modern languages. For him, *ousia* means *Being*, not *substance*, that is, not some thing or some being that “stood”(-stance) “under”(sub-).²⁶

As shown above, the term *ousia* that Aristotle uses to describe the cornerstone of his metaphysics and world view is far from straight forward to translate into English, and the word “substance” does not really yield its true significance and much is lost in translation. This was a perfect example of the non-trivial task to try and translate some of these ancient esoteric ideas from Ancient Greece to the Indo-European, Romance languages in particular, languages that derived from the Latin translation of the Greek and then into the destination tongue, i.e. at least two transliterations away from the original source. This was true not only when attempting to translate some of the works of the Ancient Greek philosophers into English, but also when translating some of the extent Judeo-Christian literature into English which in many cases was also authored in Greek, or in many cases from an even more distant relative of English, Hebrew. To make matters worse, the Greek language itself was not necessarily designed to handle these esoteric and philosophical ideas that Aristotle, Plato and others were trying to articulate.²⁷

[Contrast this with the Indo-Aryan tradition who from earliest times had a language framework, namely Sanskrit, from which their esoteric and metaphysical, and of course theological, principles and constructs could be articulated to the reader. A reflection of this translation difficulty is that

²⁶ From Wikipedia, <http://en.wikipedia.org/wiki/Ousia>.

²⁷ A classic Judeo-Christian example of this transliteration problem can be found in the Gospel According to John, or simply John, the fourth of the Canonical Gospels of the New Testament and the Gospel unique to the other three Synoptic Gospels in many respects. The oldest extant examples of the John were authored in Greek, and in particular the opening verse which is classically translated into English as “In the beginning was the Word, and the Word was with God, and the Word was God.”

much of the Indo-Aryan philosophy, and many of the key terms that are used, are NOT in fact translated into the English when being described or conveyed to the modern reader, i.e. English has adopted some of the original Sanskrit terms for there is no English equivalent. The terms Atman and Brahman for example, and their relationship in the human body-mind construct as described by the chakras and Kundalini yoga, are all Sanskrit terms that represent core Vedic philosophical and theological constructs that have no English counterpart. These terms, and others such as Satchitananda, typically translated into English by modern Sanskrit and Vedic scholars as “Existence-Knowledge-Bliss-Absolute”, or even Samadhi, the state of immergence of the individual soul Atman into the essence of the source of all things or Brahman which is the eighth and final limb of the Yoga Sutras attributed to Patanjali, both are examples of esoteric terms that have a deep philosophical and psychological meaning in the Vedic tradition and have no direct English translation.

These Sanskrit terms, and many others, have made their way into the English language over the last century as Yoga has been introduced to the West as the most accurate way to describe these principles and to a great extent this provides for a better direct communication of their true underlying meaning. Samadhi has no English equivalent; the state which it refers to is best understood within the context of the *Yoga Sutras* within which it is described and the seven limbs that come before it, all of which also have their own Sanskrit counterparts and also have no direct English translation. Not so for the Greek and Judeo-Christian esoteric words that were used by the ancient philosophers and theologians, these words in almost all cases have been transliterated into English and in so doing have lost at the very least some of their meaning and context, and in some cases the original meaning intended by their original authors may have been lost altogether.]

The Theology of Aristotle: Causality and Teleology

In many respects the best way to understand the underlying *theology* of Aristotle, or what scholars have later termed his *teleology*, or the postulate that some underlying final cause must exist in nature, is to contrast his metaphysical or theological beliefs with those of his teacher Plato, specifically as represented by the Cosmology he outlines in his narrative in the *Timaeus* and his Theory of Forms as outlined in *The Republic*. It is not too much of a stretch to presume that it was the influence and works of his predecessor Plato that provided the impetus to Aristotle’s work and teaching, even if it was to establish his disagreement with his teacher.

Aristotle didn't necessarily directly attack Plato's belief in the existence of a divine creator per se, Plato's *demiurge*, but he did argue, rightfully so, that Plato's Theory of Forms lacked the sophistication to truly explain the totality of existence, or *being qua being* to use Aristotle's terminology. That is to say, Plato's Theory of Forms, despite being a powerful metaphor to describe the what he considered to be the underlying illusory nature of reality, the transformation and relationship of a Form or Idea into a thing which we would perceive as existing in and of itself is not fleshed out at all in Plato's metaphysical framework. Aristotle's metaphysics fleshed these concepts out in much more detail, and by providing the rational underpinnings of this more fleshed out Theory of Forms if you could call it that, he was able to build a rational and metaphysical framework that could extend not only the explanation of the underlying principles of ethics and virtue, but also to the world of natural philosophy, providing for the foundations of modern science as it were.

Although Aristotle's theological beliefs are debated by modern scholars, it is certain that Aristotle disagreed with Plato's cosmological and theological belief system in the sense that he believed that one must formulate a more *rational* underpinning for the explanation of reality, theological or otherwise, than what Plato puts forth in his body of work. Aristotle's metaphysics, along with his work on defining logic and reason itself, represents a *challenge* to Plato's belief, or faith as you might call it, that the underlying beauty of the world combined with the supremacy of Forms over the world of shadow as reflected by sensory perception as Plato describes in his Allegory of the Cave, is justification enough to establish the existence of an intelligent or divine creator, i.e. the *demiurge* or *divine craftsman* that Plato puts forth as the source of the *kosmos*.

In order to try and comprehend Aristotle's cosmological or theological stance, you must not only comprehend his Category Theory, but also understand his *causal* framework for adequacy upon which his entire metaphysics rests. It is this framework, sometimes referred to as his *four-causal explanatory scheme*²⁸ that he describes the basis for all of his explanations of *reality*, or perhaps more aptly put, all *things that which are said to exist*. In other words, the existence of a thing, its *substance*, must be underpinned by his four-causal explanatory scheme in order to fully understand the attributes of a thing which exists. Although this may appear to be a metaphysical nuance at first, in this causal framework rests Aristotle's fundamental metaphysical building blocks upon which any theological or teleological interpretation of his work must be viewed. He describes this causal framework quite explicitly in *Physics*:

²⁸ As outlined in the Standard Encyclopedia of Philosophy's interpretation of Aristotle's work in Aristotle, <http://plato.stanford.edu/entries/aristotle/>.

One way in which cause is spoken of is that out of which a thing comes to be and which persists, e.g. the bronze of the statue, the silver of the bowl, and the genera of which the bronze and the silver are species.

In another way cause is spoken of as the form or the pattern, i.e. what is mentioned in the account (logos) belonging to the essence and its genera, e.g. the cause of an octave is a ratio of 2:1, or number more generally, as well as the parts mentioned in the account (logos).

Further, the primary source of the change and rest is spoken of as a cause, e.g. the man who deliberated is a cause, the father is the cause of the child, and generally the maker is the cause of what is made and what brings about change is a cause of what is changed.

Further, the end (telos) is spoken of as a cause. This is that for the sake of which (hou heneka) a thing is done, e.g. health is the cause of walking about. 'Why is he walking about?' We say: 'To be healthy'— and, having said that, we think we have indicated the cause.²⁹

From this we can gather that Aristotle's causal metaphysical framework for reality is made up of four distinct but related causes, the second of which corresponds loosely to Plato's Theory of Forms.

- the *material* cause of a thing or that from which a thing is made,
- the *formal* cause of a thing or the structure to which something is created (loosely corresponding to Plato's idea of Forms or Ideas),
- the *efficient* cause of a thing which is the agent responsible for bringing something into being, and
- the *final* cause of a thing which represents the purpose by which a thing has come into existence.

Although it is open to debate whether or not Aristotle presupposes that all four causes must be present in order for a thing to exist (in fact in some cases he cites examples of which all four causes are not present but yet existence of said thing is still adequately explained³⁰), this idea of a required *efficient* cause is unique to Aristotle relative to the philosophers that came before him

²⁹ *Physics* 194b23–35 as taken from the Stanford Encyclopedia of Philosophy entry on Aristotle at <http://plato.stanford.edu/entries/aristotle/>.

³⁰ See Stanford Encyclopedia of Philosophy entry on Aristotle at <http://plato.stanford.edu/entries/aristotle/> pages 41-43 for a more detailed description of Aristotle's view on the necessary and sufficient attributes of his four causal theory.

and forms the basis upon which much of his theory of *natural philosophy* rests. This efficient cause of Aristotle can also be seen as representing the connecting principle of Plato's concept of Forms to Plato's illusory realm of the senses, representing the expansion of Plato's metaphysics as reflected in the Theory of Forms rather than a complete abandonment of it³¹.

Aristotle does not however, go so far as Plato as to believe in the existence of some divine, intelligent creator as being the source from which humans, or souls even, are born. It is clear however that from Aristotle's point of view, there must be a *final*, or *penultimate*, cause in order to establish the firm existence of thing, or substance, in reality - at least in almost all cases. The complexity and importance of this issue of final cause is not lost on Aristotle, and he addresses the specific case of the explanation of the final cause of the natural world specifically in a subsequent passage in *Physics*, resting on the notion of *formal cause* as basis enough for the justification of a final cause in nature, as circular an argument as this may seem.

This is most obvious in the case of animals other than man: they make things using neither craft nor on the basis of inquiry nor by deliberation. This is in fact a source of puzzlement for those who wonder whether it is by reason or by some other faculty that these creatures work—spiders, ants and the like. Advancing bit by bit in this same direction it becomes apparent that even in plants features conducive to an end occur—leaves, for example, grow in order to provide shade for the fruit. If then it is both by nature and for an end that the swallow makes its nest and the spider its web, and plants grow leaves for the sake of the fruit and send their roots down rather than up for the sake of nourishment, it is plain that this kind of cause is operative in things which come to be and are by nature. And since nature is twofold, as matter and as form, the form is the end, and since all other things are for sake of the end, the form must be the cause in the sense of that for the sake of which. (Phys. 199a20–32)³²

Aristotle's metaphysics, or view of reality, then for the most part built off of the platform established by Plato's Theory of Forms or Ideas, but Aristotle looked at the objective world perceived by our senses as more of an integrated manifestation of *substance* and its related attributes, combined with the notion of the prerequisite of *his four-causal theory* rather than espousing the material world as distinct and separate from the world of Forms, or in fact less *real* than the world of Forms and Ideas, as Plato espoused. This is a subtle distinction but an important one as what we find in subsequent philosophical and metaphysical systems after Aristotle (leaving aside theological and/or religious systems of belief as illustrated in Judaism, Christianity or Islam) is a departure of the conception of the world of the senses as

³¹ It is however, very clear that Aristotle most definitely deviates from Plato's view that the world of Forms is real and the world of the senses is simply illusory, which does in fact represent a significant divergence from Plato in his world view of reality akin to the dualistic view of reality in the Vedic philosophical tradition.

³² From the Stanford Encyclopedia of Philosophy entry on Aristotle. Found at <http://plato.stanford.edu/entries/aristotle/>.

simply a shadowy representation of true reality into a belief in the fundamental existence and *reality* of the objective world, the world of substance, a notion that has evolved into today what we might call materialism. To take this one step further, Aristotle's metaphysical constructs and belief system could be viewed as *the first step toward the departure of a theological conception of the basis of reality in the Western world.*

Stoicism: Philosophy and the Divine Spirit

In the period of philosophical development that arose as the influence of the Greek culture bled into the period of Roman/ Latin dominance in the Mediterranean and Near East, both the Stoic as well as the Epicurean philosophic schools rose in prominence to challenge and provide alternatives to some of the basic, fundamentally non-materialistic assumptions that were characteristic of their Greek philosophical predecessors. Both of these schools were very popular and influential in their own right in Greek and Roman antiquity, at least up until the time period where Christianity fully eclipses the Hellenic philosophical traditions some six or seven centuries later, after which all of these Greek philosophical schools, including the Greek “mystery religions” and early Gnostic sects, were branded “pagan” and thereby ostracized and sometimes brutally exorcized by the Roman state.

Both schools attacked, and ultimately emerged from, the Skeptic bent of the Academy that stemmed from their epistemological stance based upon the reality of *eidos* (Forms) and the unreliability of the physical world of the senses. The debate between what can be viewed as two opposing epistemological positions, which in some respects still rages on today, was concerning the basic building blocks and conception of the not only the universe itself (cosmology and physics), but also of knowledge and reality itself (epistemology and physics), the Stoics and the Epicureans holding that the material world of our senses was in fact more real than the cognitive reality of Forms. This metaphysical inversion has significant implications not only physics and cosmology, but also on ethics as well. These two philosophic schools were founded by Zeno of Citium (c. 334 – c. 262 BCE) and Epicurus (341 – 270 BCE) respectively, and despite their differences each took a more materialistic concrete epistemological stance as opposed to the teachings of Plato or even Aristotle who despite rejecting Plato’s theory of Forms nonetheless was not a materialist *per se*.

Stoicism: A More Practical Truth

Epicurus (341-270 BCE) was the founder of the Epicurean school and he based his teachings, at least from a cosmological and physics perspective, on the atomic doctrine that was espoused by Democritus some hundred or so years earlier. But the Epicurean system was popular for its ethical, way of life based tenets, teaching that although the world of the gods existed and was

true, these gods were too busy in their own mythical world to be bothered with human affairs and therefore supplication to them was of no consequence.

He further espoused the belief, consistent with his basic atomic physical cosmology and distinct from the beliefs of the Stoics founded by Zeno of Citium, that the Soul was a material substance just like the rest of the universe and therefore perished upon death of the body, i.e. was not in fact immortal, constructing a system of beliefs that was based upon the optimization of pain and pleasure to achieve peace and tranquility in this life and effectively removing the concern about judgment and the afterlife from the life equation as it were, thereby eliminating what he considered to be a significant cause of human anxiety.

Epicureanism was influential not only during the Hellenic period in antiquity, but also through the period of Roman influence as well as evidenced by its significant treatment and faithful transmission of doctrines through the philosopher/historian Diogenes Laertius from the 3rd century CE who devotes a full chapter on Epicureanism, from which much of our knowledge of the original teachings and metaphysical underpinnings are conserved in fact.

The Stoic tradition more so than Epicureanism was perhaps the most influential doctrine outside of Platonism in Hellenistic Greece and throughout the Roman Empire, providing for an alternative, and more intellectually comprehensible approach to metaphysics and ethics as juxtaposed with the seemingly ethereal, and perhaps even mystical, nature of Platonism.

Stoicism in particular put forth a fairly advanced view of the Soul and the Mind, one which although was more materialistic than Plato from a certain perspective, was nonetheless fundamentally theological in nature, citing the existence of one true and omnipresent God through which the universe itself not only came into existence but through whom the existence of the universe was looked after and kept in balance – a doctrine that came to be known as corporealism which is an essential and distinguishing feature of Stoic cosmology, psychology and physics. It could be argued that Stoicism put forth one of, if not the, first comprehensive psychological frameworks in the West, a byproduct of its materialistic realism as it was forced to create a comprehensive framework of mental cognition and perception that synthesized and bridged the concept of logos at the individual as well as cosmic level.

Stoicism was founded by Zeno of Citium (335-263 BCE) in the third century BCE and although differing from the prevalent Academic Skepticism in many respects and on some important key points, it nonetheless emerges from, and borrows many tenets and terminology from, the Academic Skeptics, Peripatetics and even Pythagorean schools which came before him. Zeno, having been born on the island of Samos off the coast of modern day Turkey, is believed to have spent his most prolific studying and teaching years in Athens, where at the time the Academy was flourishing and the legacy and teachings of Pythagoras were no doubt still fresh in the minds

of the Greeks. The Stoic lectures and teachings were said to have been held in public in Athens, specifically in the Agora under a “painted porch” (stoa poikilê in Greek) hence the philosophical school came to be known as “Stoic”.

The fact that the lectures were open to all and not kept secret, or only taught to the initiated as was the case for the Pythagoreans and even at the Academy albeit to a lesser extent, is certainly one of the reasons as to why Stoicism resonated so well with the Greek populace at large. The popularity of the school and the fame and esteem to which Zeno was regarded at least within Athens is reflected in the fact that, according to Diogenes Laertius the 3rd century CE philosophic historian and author of seminal work *Lives of Eminent Philosophers*, pillars were erected in his honor at the Academy and the Lyceum and a publicly funded burial was granted to him.

The philosophical tradition founded by Zeno was succeeded by his pupil Cleanthes (331-232 BCE), who was in turn succeeded by perhaps the most notable and prolific of the Stoic philosopher in antiquity Chrysippus (c. 280-207 BCE), the three of which make up what modern philosophical historians call the Old Stoa. But it is no doubt through the teachings and prolific works of Chrysippus, who incorporated and responded to many of the vocal and powerful critics of early Stoic doctrines, that Stoicism matured and became more formalized as a systemic and coherent philosophical system to rival the Academics and Peripatetics and take its place as one of the preeminent philosophical systems in antiquity. To paraphrase an oft quoted line from Diogenes Laertius, *“But for Chrysippus, there would be no Porch.”*

Although the works of the Old Stoa survive only in fragments and pieces, the doctrine as presented and codified by its first teachers, along with specific and relevant Stoic quotations and excerpts are extant from many subsequent authors and philosophers, speaking to its far reaching influence in antiquity. The Stoic school showed particularly marked influence on many esteemed Roman/Latin statesman and politicians, collectively referred to sometimes as Late Stoa, and whose writings reflect the deeply practical and ethical foundations of the tradition. With the later Stoic tradition we find more focus on the practical aspects of the philosophical system, the ethical component mostly, as opposed to the physical, logical and cosmological pieces of the doctrine on which the ethical foundations were laid by the Old Stoa. Late Stoa consist of likes of great Latin philosopher and statesman Cicero (106-43 BCE) who provided the basis of the conception of “natural law”, the Roman philosopher and dramatist Seneca (4 BCE-65 CE) who was also known to be a Stoic, and the even the Roman emperor Marcus Aurelius (121-180 CE) whose diary which came to be known as *Meditations* (written in Greek) provides remarkable insight into the daily trials and tribulations of a practicing Stoic in Roman times, albeit from a very lofty perch so to speak.

The intellectual landscape within which Stoicism was born was dominated by the teachings of Plato and his successors at the Academy which was reflected by epistemological skepticism and the supremacy of the world of Ideas over the material world as the source of knowledge as well as the Peripatetic school founded by Aristotle which expanded the footprint of philosophy in general and was predicated on causation and the notion of substantial form providing for a much more extensive and cohesive epistemological system than his predecessor, albeit not nearly as materialistic as the Stoic and Epicurean systems, and bridged the gap between Forms and Substance (essence) to a large extent.

In Aristotle's doctrine of Substantial Form, the Stoics most certainly found the core aspects of their physics, resting on very similar epistemological foundations of causation and change, or motion, with an additional fundamental biological component (pneuma) added to their physics which established the metaphysical bridge between the physical world, the world of the Soul (which subsumed their ethics and system of virtue), and the realm of the divine (theology), all of which were considered to be "corporeal" in the sense that all these principles could be acted upon and were subject to change or evolution, well beyond Aristotle's original conception of change or motion no doubt, but an interesting and compelling alternative solution to the metaphysical and theological questions which Plato's doctrines had brought to light.

The origins of Stoic cosmology, physics and psychology in its earliest form clearly evolved out of the Academic and Peripatetic traditions begun by Plato and Aristotle respectively of which the early Stoa were no doubt intimately familiar, along with some of the more ancient mythological traditions which still held a prominent place in the sociological psyche of the ancient Greeks in the time period that Stoicism flourished in antiquity. The synthesis and process of development of these aspects of Stoicism are probably best summed up by the author of the defining work on Stoic Cosmology, David E. Hahm who although authored *Origins of Stoic Cosmology* in 1977 it still nonetheless remains the most comprehensive and definitive work on the subject.

In conclusion, it appears that the origin and development of Stoic cosmobiology was no simple process. The fundamental idea that the cosmos is a living, sentient, intelligent animal was firmly enunciated by Zeno and perpetuated by his successors. This idea, rooted deeply in the mind of the ancient world, Greek and non-Greek alike, was first stated by Zeno in Platonic terms, after Theophrastus had shown that Aristotle's attempt to eliminate the world soul had left it as firmly implanted in the cosmos as Plato had believed it to be. Cleanthes continued to support Zeno's doctrine and to buttress it with new arguments. In so doing, he expanded the concept of the world soul to embrace Aristotle's three psychic functions; and he identified the world soul with the heat of the cosmos, an

identification that Zeno must also have made, but to which Aristotle's physiology now seemed to give further support. Chrysippus, noticing that medical theory had left his school behind, updated Stoic cosmobiology by identifying the world soul with the pneuma (air-fire mixture) that permeates the cosmos. To this pneuma he assigned the three psychic functions that Cleanthes had taken from Aristotle, but he broke up the nutritive function into growth and a new function called hexis or cohesion (συνεχία). This last function he used, probably following the precedent of Cleanthes, to explain the cosmological problem of the survival of the cosmos in the void. The ultimate result was that the Stoic cosmos had a biological as well as physical side. Though each side owed its existence to the ideas of others, the total integration of the physical and the biological sides of the cosmos resulted in a totally new cosmology, one that can only be characterized as purely Stoic. (Hahn, D., 1977. Pgs. 173-174)

Stoicism therefore not only offered up an alternative materialistic and deterministic philosophical viewpoint to Epicureanism which accepted the mythological tradition which was still deeply engrained in the psyche of Greeks and Romans, but also a more practical and sophisticated ethical system based upon their innovative psychological framework and their more broad epistemological position, at least more broad than the view offered by the Platonic school. These no doubt are some of the reasons why the philosophical system was so popular in Hellenistic Greece and then the period of Roman influence before being eclipsed, and in many respects integrated into, Christianity.

Stoic Philosophy: Logic, Physics and Ethics

With respect to Stoic cosmology and physics as reflected by the works of the Old Stoa, we have to look to sources such as the Middle Platonist author, theologian (priest at the Temple at Delphi) and philosopher Plutarch (c. 45-120 CE), who although a staunch defender of Platonism and is critical of Stoicism in many respects, provides very credible, sound and comprehensive material on many major Stoic philosophical positions and tenets, as well as of course the aforementioned philosophical historian Diogenes Laertius from the 3rd century CE who although wrote many centuries after the Old Stoa still provides a credible and fairly extensive account of the history of Stoicism and its major philosophical tenets within the Chapters he devotes to each of the Old Stoa in Book VII of Lives, one each for Zeno, Cleanthes and Chrysippus within the Ionian philosophical lineage branch of his work.

It is through all of these authors, again much of which is in Latin as well as Greek, that what we know about Stoicism survives down to us, clearly representing one of the most influential, widespread and lasting philosophical traditions in antiquity. And although much of the original work of the Old Stoa is lost to us, it is possible to ascertain with a good deal of certainty even some of the more esoteric cosmological (physics) tenets of the doctrine which, even though are not the main focus of any of the extant works by self-proclaimed Stoics, can be strewn together by its critics as well as by some philosophical historians – namely Plutarch and Diogenes specifically. Their fundamental and most lasting precepts, from which our modern notion of “Stoic” derives, primarily have to do with their ethical and moral philosophy, of which we have plenty of direct first hand materials – notably Marcus Aurelius, Cicero and Seneca among others.

What must be kept in mind in particular when studying the Stoic philosophic tradition, which to a large extent is true of all of the ancient Greek philosophical systems, is that one cannot just look at the ethical and moral tenets of the philosophy without having a good understanding the of the basic cosmological tenets, i.e. physics, as well as the philosophy of logic which underpinned it. This is why Aristotle as well as Plato wrote treatises that deal with rhetoric, logic, poetry, along with ethics and philosophy proper (epistemology for example). These were all branches on the same tree to these ancient philosophical schools and Stoicism had a tradition that called this out explicitly.

We find the most clear exposition of this interconnectedness in the writings of Diogenes Laertius, who in his Lives, Book VII Chapter on Zeno gives a wholesale review of not only Zeno’s life and times (which arguably borders on myth the in the way he relates some of the stories of his life) but also a fairly detailed overview of the philosophic system which is invaluable in that it is one of the only extant sources that covers the philosophical presumptions and assertions of the system as a whole, at least as reflected by a 3rd century CE philosopher/historian who had access to a wealth of materials and works that are now lost and who was clearly well read in such materials and the Hellenic philosophical tradition as a whole.

Philosophy, they say, is like an animal, Logic corresponding to the bones and sinews, Ethics to the fleshy parts, Physics to the soul. Another simile they use is that of an egg : the shell is Logic, next comes the white, Ethics, and the yolk in the centre is Physics. Or, again, they liken Philosophy to a fertile field: Logic being the encircling fence, Ethics the crop, Physics the soil or the trees. Or, again, to a city strongly walled and governed by reason. No single part, some Stoics declare, is independent of any other part, but all blend together. Nor was it usual to teach them separately. (Hicks, R. 1972 [VII:40])

To the Stoics then, it was within three separate but inextricably linked disciplines of logic, physics and ethics (the order of which were taught differently depending upon the teacher as it turns out) from which not only would a true understanding of Stoicism could be found but also from which, if understood and practiced correctly, the perfection of the ideal of Stoicism, the attainment of what one might call perfect wisdom, or perhaps better put the attainment of the full refinement and perfection of the faculty of reason – the Stoic sage - could be realized. All the disciplines hung together in a coherent system - at least coherent to the Stoics - that allowed for their basic philosophical conclusions and allowed for them to reach their basic conclusions around ethical principles which represented what the Stoic tradition in antiquity was best known for.

Furthermore, during this period of six or seven centuries where Stoicism flourishes in the West before being eclipsed by Christianity, there is a somewhat symbiotic evolution that takes place between Platonic thought and doctrine and Stoicism itself, arising out of the debate and exchange of ideas between the two schools - the Skeptic tradition as reflected by the Academy on the one hand, and the Stoics (and to a lesser extent the Epicureans) who could loosely be categorized as materialists on the other.

To the Academic Skeptics who followed the teachings set forth by Plato and his teacher Socrates, Ideas were the ontological first principle within which philosophy and its child disciplines (physics, ethics, logic, etc.) should be viewed, but to the Stoics and Epicureans, the physical world as perceived by the senses was the ontological first principle upon which their philosophy was to be constructed. It must not be forgotten that Zeno, the founder of the Stoic school, studied at the Academy and it is through this lens of epistemological dispute as it were, that we know much about the Stoic tradition, at least some of its more esoteric philosophical aspects. In other words the Skeptics and the Stoics in some sense defined each other in terms of their epistemological positions.

The Stoics held that not only could fundamental truth and knowledge be ascertained, that Truth in fact could be discerned from falsehood, the fundamental philosophical tenet that distinguished it from the Academic tradition most clearly and was the source of much of the debate between the two schools. In the Stoic tradition, eudaimonia was attainable via the fine-tuning and perfection of the rational faculty of man, which was an integral part of the Soul and reflected the divine rational faculty of God (logos), that when functioning optimally discerned this truth from falsehood consistently thereby preventing the individual from any sort of error in judgment. The goal of the Stoics then was to align this “commanding faculty” (ἡγεμονικόν, or hêgemonikon), with reason or Nature, again Logos, facilitating the attainment of complete harmony with said Nature and hence eudaimonia – hence their famed adage “living according to the laws of Nature” which codified their beliefs in many respects.

It also must be understood, and is sometimes lost by modern academics who study these ancient systems of philosophy and theology, that although these disciplines provided the rational foundations and systems of learning which provide the backbone of modern science and academia, it was still nonetheless liberation, freedom and more so than anything else what is almost always translated into English as “happiness” but in Greek had much broader connotations stemming from the Greek word *eudaimonia* (εὐδαιμονία) which etymologically comes from the conjunction of the root "eu" meaning "good" or “benevolence” and "daimōn" which is an ancient word that can loosely be translated as "spirit" or “god” but has clear theological connotations. There was a shared goal, a purpose, to each these various philosophic systems, the so called “final cause” of Aristotle (telos), even if the means by which the goal could be reached, along with some of the basic philosophical tenets of the different systems, was constantly being debated and argued amongst the various schools.

Although it may seem straightforward and rather simplistic at first glance, the whole Stoic philosophical system actually rested on deep and interconnected philosophic assumptions and assertions not only in logic itself, but physics as well which included cosmology (how the universe was created and what were its basic fundamental constituents) and even fairly well thought out theories of language and its inherent symbology (meaning) which were included in their study of logic(which included the study of dialectic and rhetoric) and included a well thought out system of interpretation of ancient mysteries and poetry, what is sometimes referred to as allegoresis and represents one of the defining intellectual contributions of the Stoics to the West..

Hence we find the following statement defining the term *allegoresis*, with supporting quotations attributed to Cleanthes, the student of Zeno and one of the three early Stoa, from Ilaria L.E. Ramelli in an article from 2011 entitled *The Philosophical Stance of Allegory in Stoicism and its Reception in Platonism, Pagan and Christian: Origen in Dialogue with the Stoics and Plato*:

Allegoresis had been used since the very beginning of Stoicism, from Zeno’s commentaries on Homer and Hesiod onwards. Cleanthes also engaged in the allegorical interpretation of archaic poetry, even proposing textual emendations that supported it. He was convinced that poetry is the aptest way to express the sublimity of what is divine:

“Cleanthes maintains that poetic and musical models are better. For the rational discourse [logos] of philosophy adequately reveals divine and human things, but, per se, it does not possess appropriate expressions to convey the aspects of divine greatness. This is why meter, melodies, and rhythms reach, insofar as possible, the

truth of the contemplation of divine realities (Stoicorum Veterum Fragmenta 1.486).

Consistently with this,

“Cleanthes [...] used to state that the divinities are mystical figures and sacred names, that the sun is a bearer of the sacred torch, and that the universe is a mystery, and used to call those inspired by the divinities priests capable of initiating people to mysteries (Stoicorum Veterum Fragmenta 1.538). (Ramelli, I., 2011).

The uniquely Stoic emphasis on *allegoresis*, which was tightly woven at least in the later tradition to the etymology and underlying meaning of the Greek gods in the Hellenic poetic tradition of Hesiod and Homer can be found in the lasting and influential treatise written in Greek by the Roman (Late) Stoic philosopher Cornutus who flourished in the 1st century CE entitled *Theologiae Graecae Compendium*, "Compendium of Greek Theology", which outlined the symbolic and etymological interpretation of Greek mythology and deities, again speaking to the lasting tradition of the allegorical interpretation of myth in general that was a key part of the Stoic curriculum.

This approach to interpretation of ancient mythology and gods of old can also be found in the Middle Platonist tradition as reflected in some of the works written by the Delphic priest and Middle Platonist Plutarch (c. 48 – 120 CE) like *Of Isis and Osiris, Or of the Ancient Religion and Philosophy of Egypt* which uses the same technique to interpret some of the ancient myths of the Babylonians and Egyptians, as well as in many of the works of the early Christian Church Fathers in their exegesis of the Old Testament, Philo Judaeus and Origen of Alexandria being prime examples.

Stoic Cosmology: Fire and Spirit

In many respects borrowing from the tradition of the Academy put forth by Plato, Stoic cosmology as it survives down to us speaks of two primary principles (*archai*) which are eternal and which exist throughout the universe - the first being the Creator who is identified with intelligence or reason (logos), Plato's Demiurge and the active participant in creation, and a second inert and inactive principle which is acted upon by the divine intellect and corresponds roughly to matter. There is a subtle distinction between how these primordial forces are seen to

interact and permeate throughout the physical, material universe though and this represents one of the unique and lasting contributions of Stoicism to metaphysics in the Western theological tradition.

In the Stoic tradition, this creative force behind the universe, what came to be equated with the God of Christianity, is identified with an intelligent force, fire or breath – *pneuma* - the latter term of which came to hold great significance in Stoic metaphysics. This rational Creator structures the physical world of matter according to its plan (again order, or logos), beginning first with a flash of light or fire and then proceeding with the creation of the four elements - fire, air, water, and earth. In the Stoic cosmological tradition fire and air were seen as active elemental forces and water and earth were viewed as being characteristically passive and receptive.

In both the Stoic as well as the Platonic traditions, as was true in nearly all of the cosmological traditions in antiquity in fact, it is via the movement or combination/mixture of an active (male) force upon a receptive (female) force which is typically associated with matter, what the Stoic tradition termed “unqualified substance”, from which the four elements emerge in turn from which the entire physical universe is constructed. It is with the Stoic tradition however that this active, ordering principle of the universe (Logos) takes on a more significant metaphysical role, supplanting as it were the cosmology put forth in Plato’s *Timaeus* where a Demiurge, or creator, works in conjunction with the principle of the “Good” (the Form of Forms) to create the basic elements of the universe, providing a more secure metaphysical construct within which this “order” or “reason” operates to shape matter into the form of the physical universe as we know it. The notion of fire, or light, being the primary creative principle of the universe, as well as the term logos to denote the divine ordering principle of the cosmos had antecedents in the tradition attributed to the philosopher Heraclitus (c. 535 – c. 475 BCE), at least according to Diogenes Laertius, although how influenced Zeno was by this pre-Socratic is largely a matter of speculation.

The Stoics affirm that God is a thing more common and obvious, and is a mechanic fire which every way spreads itself to produce the world; it contains in itself all seminal virtues, and by this means all things by a fatal necessity were produced. This spirit, passing through the whole world, received various names from the mutations in the matter through which it ran in its journey. God therefore is the world, the stars, the earth, and (highest of all) the supreme mind in the heavens. (Goodwin, W., 1878 [OF THOSE SENTIMENTS CONCERNING NATURE WITH WHICH PHILOSOPHERS WERE DELIGHTED. Book I, Chapter VII])

In the more mature Stoic cosmological doctrine as put forth by Chrysippus which sought to address some of criticisms from the Academic Skeptics no doubt, after the initial creation of the

cosmos and the creation of the four elements, the two active elements (fire and air) combine with the two passive elements (water, earth) to form the basic constituents of universal matter which consisted of and were governed by various types of *pneuma*, a word which is translated as “breath” or “spirit” or “soul” depending upon the context. *Pneuma* in the Stoic tradition is a key concept that not only underlies its cosmology, but also all of its physics as well.

Pneuma represented the basic metaphysical building block of the universe which to the Stoics was a fundamentally living and breathing entity from start to finish and permeated all matter. This corporeal, i.e. living and breathing, principle not only helped to define Stoic physics – as a principle which was characterized as capable of acting or being acted upon and subject to change - but also represented the fundamentally intelligence of the universe/cosmos at all levels of creation, from the smallest rock to the most adept of sages. The Aristotelian themes present in this very biological view of the cosmos, specifically pointing to perhaps strong influence from Aristotle’s theories surrounding procreation and generation, have been well documented by Hamm in his comprehensive and seminal work *The Origins of Stoic Cosmology* (David E. Hahn, Ohio State University Press, 1977).

In the Stoic system of logic, which underpinned its epistemology, language and speech – if formed according to the basic principles of logic that were laid out – was also corporeal, in the sense that it could cause a real effect of change on those that were spoken to, or even read from, the spoken or written word. Stoic logic in this sense, with its underlying semantic and propositional logic, language and grammar theory in general in fact, also represents one of their lasting contributions to the Hellenic philosophical tradition. This emphasis on logic, in the broadest sense of the term as it was used in antiquity which included dialectic, rhetoric and propositional logic (syllogism in the Aristotelian works) is reflected in the fairly extensive treatment of the topic by Diogenes Laertius in the chapter on Zeno where he covers the Stoic views in the discipline of logic in some detail. In Stoic philosophy, the perfect Stoic sage was predicated upon the mastering of language in both its written and spoken form, a “master dialectician” to use their words.

Underlying everything corporeal was again varying degrees of *pneuma*, looked upon as the “sustaining cause” (*synektikon aition* in Greek or *causa continens* in Latin) of all material entities – again anything that could be acted on, acted upon or was subject to change in general, a theory of substance akin to Aristotle but more broad conceptually, somewhat akin to what he would refer to perhaps as “substantial form”. This *pneuma* existed throughout the universe in a continuum starting with inanimate matter, the plant and animal kingdom, and culminated at the top of the universal hierarchy in man which had the distinguishing, and fundamentally divine, capability of reason (*hêgemonikon*), a psychological faculty whose proper functioning was tied very closely to their system of logic which again was very closely allied with their theory of language and propositional logic.

Pneuma was characterized by both an inward as well as outward motion which was the source of both the external qualities of a “thing” or “body” (again inanimate as well as animate) as well as that which provided for unity of existence to that object or entity. In the concept of *pneuma* to the Stoics saw the hierarchy of substance/essence itself, akin to the hierarchy of Souls laid out by Aristotle (vegetative, animal and human). For in Stoicism, *pneuma* existed in various forms along the corporeal hierarchy; in inanimate objects where it was characterized primarily as that which gave the object unity or held it together (*hexis* or “holding”), in the plant kingdom where *pneuma* was characterized by a more active principle referred to as “nature” (*physis* or *physis* in Greek), in animals where it is characterized by a more complex structure where it was associated with Soul or *psychê* and was subject to passions and some level of conception or mental reception of said passions (or literally changes of the Soul), and then finally in rational animals, i.e. man, where *pneuma* is characterized by the divine attribute of Reason (*logos*), which is reflected by the existence in man of a “commanding faculty” (*hêgemonikon*) through which through proper attunement a state of divinity could be attained, thus forming the guiding principle of their entire system of ethics.

Only human beings and gods possess the highest level of pneumatic activity, reason [logos]. Reason was defined as a collection of conceptions and preconceptions; it is especially characterized by the use of language. In fact, the difference between how animals think and how humans think seems to be that human thinking is linguistic — not that we must vocalize thoughts (for parrots can articulate human sounds), but that human thinking seems to follow a syntactical and propositional structure in the manner of language. The Stoics considered thinking in rational animals as a form of internal speech. (Rubart, S. 2014)

Where the cosmological traditions of the Platonic and Stoic philosophical schools diverge however is not only in the combination and primacy of the four elements, but also in the underlying mechanics – metaphysics as it were - at work within the World Soul and the human Soul, from which the two significantly different ethical and psychological systems derive and which is attached metaphysically speaking this notion of *pneuma* which is unique to the Stoic tradition in terms of emphasis and primacy.

Reason and Truth: Response to the Sceptics

The well documented Skeptic attack on the Stoic philosophical tradition was that for any absolute truth that the Stoics could come up with that their theoretical Stoic sage could “assent” to, the Sceptics could come up with what appeared to be the very same Truth but in fact was not, yielding the paradoxical conclusion that the perfect Stoic sage would actually never “assent” to anything thereby making them in reality a skeptic, i.e. that the physical world made up of impressions and cognitions was not to be taken as constituents of any of the basic elements of Truth, only images or shadows of Truth (Plato’s Allegory of the Cave)]. This criticism can be seen in Plutarch treatise On Nature where his clear Platonist bent is can be seen as he explains the different views of the notion of a mental construct, i.e. Plato’s Ideas, in the Socratic, Platonic and Aristotelian traditions in contrast to Stoicism where the construct lies outside its epistemological boundaries:

An idea is a being incorporeal, which has no subsistence by itself, but gives figure and form unto shapeless matter, and becomes the cause of its manifestation. Socrates and Plato conjecture that these ideas are essences separate from matter, having their existence in the understanding and fancy of the Deity, that is, of mind. Aristotle objected not to forms and ideas; but he doth not believe them separated from matter, or patterns of what God has made. Those Stoics, that are of the school of Zeno, profess that ideas are nothing else but the conceptions of our own mind. (Goodwin, W., 1878 [OF THOSE SENTIMENTS CONCERNING NATURE WITH WHICH PHILOSOPHERS WERE DELIGHTED. Book I, Chapter X])

To the Stoics, this primordial creative principle of *logos* which is the highest derivation of their metaphysical notion of *pneuma*, acts to not only create the universe but is active within it to preserve and maintain it so to speak, and the entire physical universe is looked upon as fundamentally living and breathing entity, i.e. corporeal. In this sense the Soul of man is seen as a manifestation of this corporeal entity and it is again with the alignment of the same ordering principle of man as well as with the universe itself that the Stoics look to as the way toward liberation or freedom, that term that is typically translated as “happiness” but connotes something much deeper in significance in antiquity.

The God of the Stoics was present in all of creation then, not just the manifestation of the hand of the divine craftsman as was typically interpreted to be the case in the Platonic tradition, and this emphasis – what is typically referred to in the academic tradition surrounding Stoicism as corporealism - is unique to the Stoicism and is one of the primary metaphysical constructs that persists into Christian theology. This ever permeating ordering principle which is characteristic of the Creator as well as his creation is the *pneuma*, or breath of the universe, which corresponds

quite directly to the Holy Spirit in Christianity (the same word in fact is used in Greek in the New Testament, i.e. *pneuma*) which denotes the ever present existence God within the physical universe itself, not simply a physical act of creation *ex nihilo* as reflected in the Old Testament Elohim or Yahweh version of creation (Genesis), or even in Plato's account of creation which albeit may not reflect an *ex nihilo* act by the Demiurge nonetheless retains some level of distinction between the Creator and his creation, what is roughly assigned to the Receptacle in the *Timaeus*.

Stoic cosmology is also characterized as a constantly evolving and changing process however, not as a creation *ex nihilo* and not as eternal as the prior philosophic schools had put forth, proving for a notion of destruction, or perhaps better termed devolution, of the universe at the end of its current cycle back into the primary fire (light) from which it initially emerges. This Stoic cosmological doctrine is referred to as "conflagration" (*ekpyrōsis*) - meaning destruction by fire - which fell under their discipline of physics (cosmology specifically) and distinguished it from the Academic and Peripatetic cosmological doctrines³³.

The Stoic conception of God can be seen as a monistic interpretation of Plato's cosmology then, pointing to very similar creation story, a parallel version of events from which the primary elements come forth to construct the universe, but reflects and emphasizes that there exists and ever present divine ordering principle, again *logos*, which sustains and permeates the physical universe it until it perishes at the end of the cycle, after which the whole process is repeated again *ad infinitum* according to the Stoic tradition. Stoic monism is called out specifically by Plutarch, again one of the greatest critics of Stoic ethical doctrine:

The Stoics pronounce that the world is one thing, and this they say is the universe and is corporeal. (Goodwin, W., 1878 [OF THOSE SENTIMENTS CONCERNING NATURE WITH WHICH PHILOSOPHERS WERE DELIGHTED. Book I, Chapter V])

This Stoic principle of assent then, as adjudicated and applied by the commanding faculty of the Soul, *hêgemonikon*, along with the complementary system of logic which was closely associated with language and propositional logic which enabled for the clear establishment of truth versus falsehood, allowed the Stoics to develop a system of ethics that (to them at least) had a sound rational and metaphysical foundation that rested, in contrast to the Platonic tradition, on the

³³ The doctrine of conflagration can be traced back to the school's founder Zeno and bears close resemblance to some of the cosmological themes ascribed to the pre-Socratic Heraclitus (c. 535 - c. 475 BCE). See Salles, R. (2013) Chapter 5 and/or Long, A. (2006) Chapter 13 for more detailed look at the Stoic notion of universal everlasting recurrence, i.e. conflagration.

presumption of the reality of the “corporeal”, physical world which in turn mirrored the corporeal universe, each governed by the same principle of reason or logos and was further characterized by their notion of pneuma, which permeated and was subsistent throughout the universe, at the both the individual level and the cosmic level and everything in between, and was governed by a divine ordering principle which came to be known in the Judeo-Christian theological tradition as logos. For in the Stoic tradition, the notion of corporeality extended not only to the physical world, but also to the abstract world such as the Soul and even to abstract concepts and ideals such as Virtue, Justice and Wisdom.

So whereas the Platonic tradition rested on the epistemological and ontological primacy of the realm of Ideas and the power of the Intellect to discern fundamentally Good characteristics such as virtue and justice from which happiness ultimately derives, the Stoic school taught that the physical, material world of the senses shared the ultimate “spirit” of the cosmos with the human soul, albeit of a lesser quality, and that the refinement and ultimate perfection of a particular aspect of the human intellect which is sometimes translated as the “commanding faculty” but can also be looked upon as the psychological function of what we might refer to as “assent” (hêgemonikon), one could act in perfect accord with virtue which was the key to human peace and happiness.

To the Stoic then, although the universe was governed by Reason and to a certain extent was predetermined given God’s pervasiveness throughout the universe and their fundamental belief in cause and effect as an a priori construct of the human condition (God is referred to sometimes in this tradition as Fate), although an individual did have Free Will to the extent that they had control over their commanding faculty, which again fully assimilated and absorbed the senses (these were not fundamentally irrational impulses as put forth by Aristotle) within the Soul, of which proper rational adjudication of assent to truth and reality was the key to a virtuous and therefore happy life which, consistent with all of the Greek philosophical traditions, was the goal of life and the purpose in fact of philosophy itself.

In the Stoic tradition, the agent of logos was viewed as the rational and active principle of God that permeated the universe and gave it life and characterized both the world Soul and the individual human soul, and again when harmonized and understood properly, with proper attunement of the instrument of logos and its corollary “assent”, was the secret to divine happiness and the core of their ethics.

In this sense Stoic psychology which was based upon the supremacy and reality of the physical world as perceived by our senses and the role of the active principle of intelligence that permeated through the eternal universe (logos), not only deviated from the supremacy of

Platonic Ideas (Being) over his world of Becoming or that which was subject to change, but also from Aristotle's doctrines of being and essence which although more broad than Plato still distinguished between the material world, which to him depended upon intelligibles as well as particulars as reflected in his doctrine of hylomorphism, and the world of Soul which included both form and matter alike and from which all virtues and vices had their source.

True wisdom for the Stoics was in harnessing and utilizing this commanding faculty which was unique to mankind to "assent" only to impressions that were deemed consistent with Truth according to their system of philosophy (enter the importance of logic), thereby living completely in accordance with Nature, or God, which abided by the very same principles. By purifying the mind and attaining wisdom, one's commanding faculty could be honed to perfection and no false judgment or "assent" (sugkatathesis) would in fact be possible, hence again the ideal of the perfect Stoic sage, being propelled by the pursuit of pure reason as it were and hence also the modern associations of the term "Stoic" as being bereft of emotion or feeling. In his sarcasm, representing the position of the Academy relative to the Stoic school, Plutarch from the first century CE refers to the Stoic Sage thus:

...but the Stoics' wise man is not detained when shut up in a prison, suffers no compulsion by being thrown down a precipice, is not tortured when on the rack, takes no hurt by being maimed, and when he catches a fall in wrestling he is still unconquered; when he is encompassed with a rampire, he is not besieged; and when sold by his enemies, he is still not made a prisoner. The wonderful man is like to those ships that have inscribed upon them a prosperous voyage, or protecting providence, or a preservative against dangers, and yet for all that endure storms, and are miserably shattered and overturned. (Goodwin, W., 1878 [A BREVIAE OF A DISCOURSE, SHOWING THAT THE STOICS SPEAK GREATER IMPROBABILITIES THAN THE POETS])

Influence of Stoicism

Two of the most influential Greek philosophical traditions in antiquity, in both the Hellenistic period as well as the period of Roman influence and domination, were Stoicism and Epicureanism, the former of which exerted considerable influence on early Christian theology, which in turn was influenced by Jewish theological development during the same time, most notably seen in the work of [Philo of Alexandria](#). The Stoic and Epicurean philosophical systems survive down to us in fragments and pieces for the most part, in contrast to the more complete

philosophical systems and works that survive down to us from the Platonic and Peripatetic (Aristotle) schools. For example the (Middle) Platonic philosopher and historian Plutarch from the 2nd century CE, who incidentally was also a priest at Delphi, wrote a quite few works that criticize Stoicism from which we gain important insights into its underlying philosophy. We also find material related to Stoicism and Epicureanism in the works of the philosophical biographer Diogenes Laertius from the third century CE who was the author of [Lives of Eminent Philosophers](#), a comprehensive treatise which included extensive autobiographical as well as philosophical summaries of virtually all of the major ancient Greek philosophers and schools - Stoic, Platonic and Epicurean being three schools which he covers in great detail.

One cannot ignore the underlying socio-political context which drove these philosophical, really scientific, developments. With the advent of first the Persian Empire and then the Macedonian Empire in the middle and latter half of the first millennium BCE, we see the lines of communication, exchange and trade routes open up which bridged the ancient populations of the Macedonians, the Romans, the Greeks, the Egyptians, the Chaldeans (Palestine and Israel region today) and of course the Persians³⁴. The cultural and philosophical epicenters of these developments were, as they are today, forged in urban centers of learning, most notably of course first in Athens, then in Alexandria in northern Egypt, and then in turn in Rome as the Roman and Latin culture began to dominate the intellectual landscape in the first few centuries CE.

Alexandria in particular saw the development of profound intellectual and philosophical development, where most if not all of the most influential ancient philosophers and theologians lived and studied to a large extent between the second century BCE and the second century CE. This was of course the home of the great [Library of Alexandria](#), perhaps the greatest legacy of Alexander, and the place where the Hebrew Old Testament was translated into Greek, the famed [Septuagint](#) (or simply LXX), and where early Christian theology first took shape as reflected in the works the esteemed Jewish philosopher Philo of Alexandria (also known as Philo Judea) who lived and wrote around the time of Christ, [Clement of Alexandria](#) who wrote and taught in the 2nd and third centuries CE, and [Origen](#) also of Alexandria who is believed to have studied with and was greatly influenced by Clement. Clement and Origen were some of the first Christian theologians to interpret the Gospels in light of the Greek philosophical tradition, building on the work of Philo who had analyzed and encapsulated Old Testament wisdom in the light of Hellenic philosophy.

³⁴ Although Alexander the Great did get as far as India in his travels, and there are references in many of the ancient Greek philosophical works of the Indian gymnosophists (literally “naked sages”), the influence of the Indian philosophical systems on the West was minimal and marks from a cultural as well as intellectual development perspective the line between the East and West that is most commonly drawn today.

This period represented a melting pot of theological dialogue and development, perhaps best described as the enlightenment era of philosophy in antiquity and it is no accident that it is from this period that perhaps the greatest religious figure in the history of mankind emerges, Jesus of Nazareth. It was a time when all of the significant religious traditions (philosophy) of the Mediterranean, Near East and Egypt were assimilated by some of the best minds in antiquity, an assimilation that occurred at the same time as advanced civilization was starting to blossom, and language and writing – and the existence of extensive libraries - began to manifest in the ancient world, giving philosophers and historians alike access to broad expanses of knowledge across an extensive cultural landscape, granting a perspective on history and theology, and science which at that time encompassed theology, that was unmatched in all of mankind's history up to that point. Perhaps it's not too much of an exaggeration to say that it was a time when Reason began to take prominence over ritual and myth as the predominant determining factor that shaped religious thought, where all knowledge was looked upon as a single system and body of work that must hang together cohesively, and where ethics was considered a branch of science just as important as physics. This is the legacy of the ancient Greeks to the West.

The philosophers of this era looked upon the mythology of the ancient peoples, their cosmologies that were wrapped in fable and epic poetry, as allegories for the ascent of the Soul, not as true stories that explained the inner workings of Nature as some modern historians would have us believe. This was the "secret" that was kept by the priests of the major sects of the ancient world, with whom the philosophers studied, and what they attempted to encapsulate and describe in whatever form they deemed most appropriate. Plato wrote in Socratic dialogue form, hiding more abstract and esoteric teachings to a large extent perhaps because he was concerned the same fate of Socrates might befall him or perhaps because he thought that the ancient wisdom he was trying to convey was most appropriately done wrapped in allegory and dialectic so that the wisdom and elegance of the teaching, which he believed was beyond words, could be conveyed as best as possible. Aristotle was more direct in his approach, more scientific to the modern reader, and perhaps because of this not terribly popular to the everyday man in antiquity that still had an appreciation for myth and allegory – at least certainly not as popular as the Stoic and Epicurean schools which had significant followings in the aristocracy and the middle class of antiquity respectively³⁵.

³⁵ Seneca a first century CE Roman statesman and the Roman Emperor Marcus Aurelius from the second century CE are both notable followers of the Stoic system. Virgil the famed author of the epic poem about the founding of Rome entitled the *Aeneid* from the first century BCE, the poet and philosopher of the first century BCE [Lucretius](#), and Diogenes Laertius the historian and autobiographer of the third century CE are all associated with the Epicurean school, the latter two authors being the source of much of our information about ancient Epicureanism.

Even if one takes the position that Stoicism does more borrowing than innovating however, its influence in the philosophical, political and theological landscape in the West is substantial after the period of the late Stoa which ends with Marcus Aurelius, the Roman Emperor who authored *Meditations* in the latter part of the second century CE. For example we find many classically Stoic themes in the early Christian tradition which, at least in the first few hundred years before orthodoxy is established, leaned heavily on its Greek philosophical predecessors to legitimize its teachings, in much the same way that the early intellectual interpreters of Islam did. The Stoic philosophical concepts of *logos* and *pneuma* specifically both play a crucial theological roles in defining early Christian theology, as the “Word of God” and the “Holy Spirit” respectively, both of which display remarkably Stoic features.

Genesis 1:1: “In the beginning God created the heaven and the earth. And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters.”

John 1:1: “In the beginning was the Word [logos], and the Word [logos] was with God, and the Word [logos] was God.”

The similarities between the Stoic concept of *pneuma*, which sat at the heart of its corporeal conception of the universe, as well as its notion of the divine *logos* which was also the seat of the human intellect, and the Christian Holy Spirit and their view of Christ as the manifestation of the divine *Logos* (Word) in the flesh reflections of which can be seen in the two oft quoted passages from the Old and New Testament respectively above, are profound and telling and speak to the strong influence that Stoicism had on Christianity which dominated the Western theological and philosophical intellectual landscape for some thousand years after Greek (and pagan) philosophical traditions were persecuted into nonexistence.

Furthermore, the first few (Judeo) Christian theologians who established the philosophical backbone of Christianity not only drew on Stoic metaphysics in order to shed light on the intellectual depth and meaning of the Judeo-Christian scripture, but also made extensive use of allegoresis, again a uniquely Stoic intellectual contribution in antiquity, to illustrate the hidden meanings of various parts of the Old and New Testament outside of a simple literal interpretation which even to the intellectuals of antiquity in some cases was nonsensical.

These altogether Hellenistic philosophical trademarks to which the Stoic tradition heavily contributed can be found in the works of Philo Judaeus (c. 25 BCE – c. 50 CE), particularly in his

works on Old Testament exegesis where he made extensive use not only of allegoresis in general but also of the Stoic theological construct of Logos as well which is likely the ultimate source of its usage in the Gospel of John. The same textual interpretative techniques can also be found in the works of Clement of Alexandria (c. 150 – c. 215 CE) and Origen of Alexandria (c. 184 – c. 254) who both drew heavily on their Greek philosophical predecessors along with Philo Judaeus and also made extensive use of allegoresis to provide the intellectual and philosophical underpinnings to the distinctly theological and mythological literature that characterizes Christian Scriptures as they laid the groundwork for early Christian theology.

Furthermore, the concept of natural law which has had a profound influence on the development of jurisprudence, i.e. legal theory, in the West has its roots with the Roman Stoic philosopher/statesman Cicero (106-43 BCE), particularly in his work *On the Laws* and *On the Republic* where he speaks to the important significance of natural law in the proper governance responsibilities of the state, a state governed by and held together by jurisprudence or law in its most pure and objective form as social good in and of itself.

Cicero was strongly influenced by Stoicism, at least in terms of ethics and political philosophy and his theory of natural law can be viewed as an extension of the Stoic precept of “living according to the laws of Nature”, which was the more common transliteration of the more technical Greek term first attributed to Zeno *oikeiôsis*, which is although literally translated sometimes as “affiliation” or “orientation” more broadly means “that which belongs to oneself”, like familial affiliation for example. In the legal theory of natural law, the authority of legal standards derives, at least in part, from considerations having to do with the independent and eternally existent moral merit of certain behaviors upon which the laws are crafted and established. That is to say, in the theory of natural law moral propositions are believed to have objective, epistemological, standing in and of themselves and derive from eternal laws of nature which are inherently rational - i.e. reflect the divine Logos which in turn is reflected in the rational faculties of man and contain inherent value from a sociological and political perspective beyond their personal and psychological value.

We can even find very Stoic like themes in the practical philosophy of Immanuel Kant (1724 – 1804) where he deals specifically with ethics and the existence of God and the immortality of the Soul. In his seminal work *Critique of Practical Reason* he argues that morality stands on pure rational and logical foundations, even if it has no grounding in objective reality as bound by the epistemological stance he puts forth in his theoretical philosophy outlined in his *Critique of Pure Reason*. That is to say that according to Kant’s philosophical framework, the existence of moral and ethical standards and behavior was based upon pre reason itself and exists for us as human beings as a byproduct of us being rational, social interdependent creatures. He furthermore put forth that the existence of these moral and ethical standards was predicated on the belief in the

immortality of the Soul, the existence of a benevolent God, and the hypothetical existence at least of what he referred to as the “highest good”, a theoretical reality where all rational beings behave according to pure reason which in turn aligned with perfect morality. [See Rohlf, M. (2014) for a more detailed look at Kant’s practical philosophical framework and origins.]

Lastly, we can even find many Stoic philosophical parallels in Eastern philosophic traditions such as Yoga and Vedanta, where pneuma, divine and individual corporealism, the idea of the existence of a commanding faculty which governs human behavior, the idea of living according to the laws of Nature and natural law, and even the idea of the eternal creation, preservation and destruction of the universe in fire (conflagration) all have direct parallels in the Yogic concepts of prana, Brahman and Atman, buddhi, dharma, and the cosmic cycles of Brahman or Yugas. While we cannot trace these Eastern motifs directly back to Stoic origins in the West their philosophic similarities and terminological parallels are remarkably similar. [See Valdez, J. (2014) pgs. 58-69 for a detailed review of Indo-Aryan philosophy.]

To conclude then, despite Stoicism’s clear borrowed and synthesized heritage, the philosophical school made distinct, unique and lasting contributions to philosophy proper, ethics, political philosophy and theology in the West. And furthermore some of its unique intellectual contributions, particularly in the realm of ethics and epistemology (allegoresis specifically), can provide us with the basis for having a more inclusive and holistic perspective on the seemingly disparate disciplines of science and religion even today.

The Soul in Antiquity: The Divine Connection

Consistent across all of the Hellenistic philosophic schools was the importance of the Soul, the distinction of the human soul as having the capability to reason and comprehend the physical world in a way that was unique to man and distinguished mankind from the rest of the living organisms on Earth, particularly the animal and plant kingdoms that were considered to be forms of life but lacking this unique characteristic. This intellectual capability came to be known in early Christian literature as *logos*, a term that has found its way into the modern English Biblical lexicon as “the Word” but whose etymology stems from the ancient cosmological notion of order, in the sense of order out of chaos which was viewed as one of the primordial steps in the universal creative process in virtually all of the cosmological mythological traditions in antiquity – from the Greeks, the Egyptians, to the Babylonians and Indians.

As the philosophical and scientific disciplines were honed and practiced by the Greeks, this notion of order came to be understood not only as one of the defining attributes of man as well as the Creator, but also as an active principle that governed the universe in its created state as well as the bridge between the individual Soul and the World Soul. The Stoic philosophical tradition in particular played an important role in honing and elaborating on these basic principles and ideas, and in many respects bridging the intellectual gap between the Socratic philosophical schools represented by Plato and Aristotle and the early Christian theologians such as Philo Judaeus, Clement and Origen – through and out of the concept of *logos* which sat at the heart of all of these distinct and yet related theo-philosophical systems.

The lasting contribution of the Greeks to the West is not only in their political philosophy, they are of course given credit for the creation of democracy, but with their philosophical tradition in itself, from which their politics emerge really. In other words, their political philosophy and modes of governing were closely tied to the more broad tradition of philosophy (literally “love of wisdom”) from which it emerges. This link is clearly seen in Plato’s *Republic* where the connection of philosophy, virtue and the ideal city state is outlined in detail and in his less well known treatise [Laws](#), a work believed to have been written by Plato toward the end of his life which also addresses political philosophy and the role of law in society in particular. Aristotle’s work, most notably in [Politics](#), also addresses political philosophical issues through the same link that Plato uses, notably in the exploration of the ideal man and the role of ethics and virtue in governance in general.

This tradition, this revolution really, of the supremacy of Reason and Logic over myth and tradition is what marks the Greek philosophical tradition more so than any other characteristic, and it is this tradition that marks their lasting contribution to Western civilization. And underlying

this tradition is that it is the Mind, mankind as a thinking being, which distinguishes it from the rest of the creatures that roam the Earth.

While neither the works of Aristotle or Plato address or analyze the mental faculty directly in their works, the role of Mind, characterized most notably by Reason and the ability to deduce or induce facts that stand up to the test of intellectual coherence and consistency, i.e. cannot be refuted or at least are difficult to be refuted, is the common theme to really all of their work. And it is this thinking faculty that is called out as the distinguishing and special characteristic of man. Aristotle not surprisingly is the first to outline explicitly these faculties of man, and thinking in particular, within the context of his exploration of the Soul, or that which animates living things, in his work entitled [*On the Soul*](#) (*De Anime* in Latin).

Mind: The Seat of Reason (Logos)

Mind is the entity which more than any other thing, idea, or concept which has the greatest impact on not only our own, individual “state of mind” so to speak, but also in turn the state of affairs from a social, and now in the Information Age, global perspective. Society at large in this context could be viewed as the state of the collective Mind of its citizens and people, and to this extent is heavily influenced by, and in fact consisted of, the states of Mind of the individuals that make up that society or nation.

And then when we leave the ethereal and elusive inner world of the Mind, whose structure is based on *Forms* and *Ideas* and not on Things or Objects, we find ourselves buried in Physics, as complex and abstract as that discipline is in modern times. But Physics must sit on a foundation of metaphysics, this was Greek philosophical orthodoxy. And this philosophical premise, or assumption, was what divided the modern day physicists – one camp sitting squarely on the math, underlying geometry and formulaic equivalents and progressions and resisting any interpretation thereof, and another camp that construed physics to be intrinsically supported by metaphysics to be of value and therefore an interpretation of the *meaning* of these mechanical theories – Relativity and Quantum Mechanics specifically.

Physics itself, as defined by classical mechanics (Einstein’s Relativity which extends Newtonian Mechanics) and Quantum Mechanics, is extraordinarily powerful and is responsible for much if not all of the advancement of modern technology which in turn allows these words to be placed on this (virtual) page and for them to be read and understood by people, other individuals,

allowing and facilitating the transfer of information, of knowledge and thought, at a speed which is unparalleled in human history.

This same individual mind, with its extraordinary and unique ability to think and rationalize, is the very same source of empirical and scientific method which has supported and underpinned this technological revolution. It has allowed for the collective advancement of knowledge, of science, in a way that not only distinguishes mankind from the rest of the species on the planet but even allows for the very exploration of the meaning of existence, the extent to which anything in fact can be known - [epistemology](#) - upon which science rests.

This is why *metaphysics* had been deemed *first philosophy* by Aristotle, a tradition that was followed all throughout the West up until the Scientific Revolution. In this intellectual framework *natural philosophy*, what we today call physics, rested on the epistemological foundations of first philosophy, positing that its real practical value to us as spiritual beings, Soul bound entities resting between the world of spirit and matter, depended upon how we defined knowledge itself, and at least in Aristotle's point of view, resting on purpose or *teleology*. For it is in first philosophy, metaphysics, that knowledge itself is placed on rational foundations and under which natural philosophy's true meaning can be understood to us as human beings, beings whose existence spanned across both the world of spirit (Soul) and the world of matter.

But what is most often lost in the detailed analysis and development of the various scientific and philosophic disciplines in the last 2500 years is that in antiquity metaphysics and theology were if not equivalent then at the very least very much closely related and interdependent and complementary disciplines. The Arabs in fact adopted this view from the Greeks, and this explains why Porphyry's *Enneads*, a collection of edited works of the Neo-Platonist Plotinus by his student Porphyry from the 3rd century CE, were circulated among the Arabic intellectual community after the introduction of Islam as the *Theology of Aristotle*. In Aristotle's own words, the association is drawn quite clearly as he explains the relationship between physics, mathematics and the theoretical science that is ontologically prior to both, namely metaphysics or first philosophy which deals with first principles, the divine, and his principle of *being qua being*:

That physics, then, is a theoretical science, is plain from these considerations. Mathematics also, however, is theoretical; but whether its objects are immovable and separable from matter, is not at present clear; still, it is clear that some mathematical theorems consider them qua immovable and qua separable from matter. But if there is something which is eternal and immovable and separable, clearly the knowledge of it belongs to a theoretical science,-not, however, to physics (for physics deals with certain movable things) nor to mathematics, but to a science prior to both. For physics deals with things which exist separately but are not immovable, and some parts of mathematics deal with things which are immovable but presumably do not exist separately, but as embodied in matter; while the first science deals with things which both exist separately and are

*immovable. Now all causes must be eternal, but especially these; for they are the causes that operate on so much of the divine as appears to us. There must, then, be three theoretical philosophies, mathematics, physics, and what we may call theology, since it is obvious that if the divine is present anywhere, it is present in things of this sort. And the highest science must deal with the highest genus. Thus, while the theoretical sciences are more to be desired than the other sciences, this is more to be desired than the other theoretical sciences. For one might raise the question whether first philosophy is universal, or deals with one genus, i.e. some one kind of being; for not even the mathematical sciences are all alike in this respect,—geometry and astronomy deal with a certain particular kind of thing, while universal mathematics applies alike to all. We answer that if there is no substance other than those which are formed by nature, natural science will be the first science; but if there is an immovable substance, the science of this must be prior and must be first philosophy, and universal in this way, because it is first. And it will belong to this to consider being qua being—both what it is and the attributes which belong to it qua being.*³⁶

It is an implicit assumption in modern academia which establishes the foundations of our collective intellectual psyche in the West that *physical reality*, as governed and defined by modern physics, defines the boundaries of knowledge. In other words, we as a society as a whole in the West assume that the branches of knowledge which fall under the umbrella of *science* represent the be all and end all in defining that which can be known beyond a shadow of a doubt, that which can be proven to exist by experiment and hard data and analysis – data in this sense being represented not be “ideas”, but by “facts”, facts that are born out by experiment and observable quantities or entities as we define them. This is our religion of today.

Psychology: The Inner Workings of the Soul

But before we look at the view of Plato and Aristotle on the Mind and the thinking faculty and how they influenced Western thought down through the millennia that followed, it is important to draw attention to the work of [Anaxagoras](#), a pre-Socratic philosopher who is best known for putting forth the role of Mind, in the cosmic capacity perhaps best described as the collective and ethereal Mind, at the forefront of not only his cosmological worldview, i.e. how and by what means the universe has come into existence, but also in his metaphysics as the primary principle which governs and balances the physical universe, a principle which sits outside of and

³⁶ Aristotle, *Metaphysics* Book VI Part 1. Translation by W. D. Ross, quotation from <http://classics.mit.edu/Aristotle/metaphysics.6.vi.html>

independent of any of the basic elements which make up the universe itself. Even though Plato and Aristotle reject the metaphysics of Anaxagoras, it clearly influences their philosophy, if only to serve as a counterpoint to their theories of Mind, and in turn Soul to which the thinking faculty of man is closely related³⁷.

According to Diogenes Laertius, Anaxagoras acquired the nickname Mr. Mind (DK 59 A1); his view that the cosmos is controlled by nous, mind or intelligence, first attracted and then disappointed Socrates (Plato, Phaedo 97b8ff.). Plato and Aristotle applauded Anaxagoras for using nous as the first principle of motion, but both criticized him for failing to be consistent in that use, arguing that once he invoked Mind to set the original mixture in motion, Anaxagoras reduced later causes to mindless mechanism.³⁸

Before we delve into the role of the intellect, or mind within the context of Platonic doctrine and extant works, or even the [Corpus Aristotelicum](#) it is important to (re) visit the close correlation between what today we might call the “cognitive faculty” of man, perhaps best viewed as the derivation of Descartes’s *cogito ergo sum*, and what the ancients looked at as the notion of Soul. The concepts are very closely related, particularly in the Platonic and Aristotelian traditions, and in fact it is through their philosophical developments in particular that the cognitive faculty of man, thinking and discernment we might call it, start to evolve as separate and distinct qualities that are somewhat independent of the notion of Soul itself.

We can perhaps best see this when we look at the word *psychology* itself and how it has come to be synonymous with the study of mind in modern day nomenclature and usage. The root part of the word however, “psyche”, comes from the Greek word for soul “psyche” or “psuche”. From the online etymology dictionary we have the following etymological description for the term ‘psychology’:

psychology (n.)

*1650s, "study of the soul," from Modern Latin *psychologia*, probably coined mid-16c. in Germany by Melancthon from Latinized form of Greek *psykhe*- "breath, spirit, soul" (see *psyche*) + *logia* "study of" (see *-logy*). Meaning "study of the mind"*

³⁷ Philosophical elements of the Anaxagoras’s Nous can also be seen in the [Derveni Papyrus](#), a work which is tied to the Orphic cosmological tradition from the 5th century BCE.

³⁸ *Anaxagoras* by Patricia Curd, Stanford Encyclopedia of Philosophy Fall 2011 edition, pgs 16-17. Full text can be found at <http://plato.stanford.edu/entries/anaxagoras/>.

first recorded 1748, from Christian Wolff's "Psychologia empirica" (1732); main modern behavioral sense is from early 1890s.³⁹

So we can see clearly this close connection between the study of mind, study of the human intellect, and the notion of the human soul, and this correlation, this connection goes back to the Greek philosophical tradition, speaking to the profound influence that this tradition has had on Western thought even some 2500 years after its inception. Today we clearly view psychology as the study of the human psyche, but we forget the etymology and derivation of the term from our ancient Greek ancestors.

Keeping this in mind then (no pun intended), when we look for how Platonic and then in turn Aristotelian doctrine and philosophy framed this notion of mind, the thinking faculty of man, we must look at their conceptions of the Soul, and to what extent they viewed this thinking faculty of man, mind in the individual sense, as independent of the soul. And in so doing, what we find is that the notion of the soul itself undergoes transformation and evolution in the Ancient Greek world, as first put forth and reflected in the works of Homer, and then in the Pre-Socratic philosophical tradition (Heraclitus, Anaxagoras who has already been mentioned, Pythagoras, etc.), then in the philosophy of Plato and then in the philosophy of Aristotle⁴⁰.

When we look for Plato's theory of mind, or at least how he perceived and viewed the mental faculty through which the physical world was perceived, we must look at his body of work as a whole and discern from it what his principles and beliefs and philosophical tenets were with respect to not only the mind and cognitive faculty specifically but also his notion of the Soul which was very closely correlated to the notion of mind from his perspective.

Whereas Aristotle laid out a system of metaphysics and set of teachings that were broadly categorized by topic and were for the most part at least logically organized (with some overlap of course), in studying Plato and discerning his, or by extension perhaps Socrates's, philosophical positions we must look at his body of work in toto. And like any philosopher, or like any individual for that matter, his views matured over time and adjusted and evolved somewhat, which is why historians have divided Plato's works into what they believe are the order, the timing, which they were written – his Early Dialogues, his Middle Dialogues and then his Late Dialogues which are considered the most dense and sophisticated of his works. These categories are not concrete and definitive of course, and are open to a great deal of scholarly debate, but for the most part

³⁹ <http://www.etymonline.com/index.php?term=psychology>

⁴⁰ For a very detailed overview of the Ancient Greek conception of the Soul throughout the Homeric and Pre-Socratic period as well as in the works of Plato and Aristotle, see *Ancient Theories of the Soul* by Hendrik Lorenz, published in the 2009 edition of the Stanford Encyclopedia of Philosophy, which can be found here: <http://plato.stanford.edu/entries/ancient-soul/>.

it is a generally accepted division of Plato's work where we can at least have the opportunity to view the evolution of his views and philosophical principles over time. It is from the Middle Period that we find his exploration of the notion of Soul, first in *Phaedo* which delves into the nature of the Soul and whether or not it persists beyond the death of the body, a work almost solely devoted to this topic, and then in his famous *Republic* which deals with the notion of Justice, which in turn is looked upon as the perfect state of the Soul, within which the role of Reason is called out specifically as an attribute of the Soul and a more thorough treatment of the Soul and its parts is given relative to the work on the Soul in *Phaedo*.⁴¹

Plato's greatest contribution to Western philosophy is no doubt his Theory of Forms, which in essence breaks down existence itself as not only a physical world of inanimate and animate objects, but a theory of knowledge and understanding which is based upon the notion that a) the understanding of a thing is predicated upon the existence of a true Form, or Idea of a thing without which the understanding, or even the thing itself, could not truly "exist", and b) that such Forms or Ideas existed eternally as intellectual constructs upon which our understanding of the world around us is based. It is from this premise and starting point that we must begin to try and grasp Plato's perspective on the role of the human mind, the act of perception, and ultimately his views on the Soul which are very much inextricably linked to his views on the mind and the means by which we can truly understand or comprehend anything.

Plato's Tripartite Soul: Balance, Harmony and Happiness

From a psychological perspective, according to Plato as outlined in the *Republic*, the Soul consisted of three parts that are roughly hierarchical from a virtue perspective - the logical or rational part of the Soul (*logistikós*, from the same root as *logos*, literally the "one who reasons") at the top, the high-spirited or passionate part (*thymoeidês*) just underneath the rational part, and the appetitive or desirous part (*epithymêtikon*) at the bottom which was associated with sexual desire (and interestingly the desire for money and power) - the proper, or harmonious functioning of which was equated to the ultimate goal of not only the individual, but also society at large, what he (and later Aristotle and others), called *eudaimonia* or "happiness".

⁴¹ Plato's *Phaedo* and *Republic* were alternatively referred to in antiquity as *On the Soul* and *On Justice* respectively, speaking to the prominence of these two themes in the works themselves.

As interpreted by followers of Plato, and in particular in the Neo-Platonic tradition which so influenced early Christianity, this realm of Ideas/Forms exists eternally within the Logos (the divine intellect or Nous), which although is not separate from the One is a distinct feature of it. This divine intellect was an inherently rational entity, was eternally existent, and was the metaphysical construct that created the order behind the known, physical universe, was reflected in the rational faculty of man, and provided the metaphysical, and mystical, connection between the individual soul and the World Soul, the latter of which corresponds to the God (Yahweh) of the Judeo-Christian tradition.

In this context we must view his argument of the immortality of the Soul in *Phaedo*, which hinges off of the immortal and undying existence of *intelligibles*, upon which the Soul consists of and is characterized by. His notion of intelligibles is contrasted with his view of particulars, which could be best described as specific characteristics and qualities of things, of substances, which have some existence in physical reality. These particulars exist as extensions of, characteristics again, of those things which have an existence in time and space, which are perishable in fact. The Soul however deals in and exists in the contemplation of imperishable Ideas and Forms, these intelligibles which exist beyond time and space and do not indeed perish. It is with this intellectual and metaphysical dualistic type of reality that Plato establishes his argument for the immortality of the Soul – for how can Soul which is so closely correlated and associated with intelligibles which in and of themselves are not perishable, perish in and of itself at death? This is the essence of what is sometimes called Plato's affinity argument, so called because it establishes the Soul's affinity of and to the imperishable world of intelligibles and therefore must and should share the same characteristics of this imperishable phenomena, i.e. is imperishable and immortality, in and of itself.⁴²

What is implied in this description of, and argument around the nature of the soul of course is the idea that, the implicit belief, that the Soul is a thinking thing, or perhaps better articulated that the Soul is that which contemplates intelligibles, or more specifically that which contemplates Ideas or Forms. Although Plato doesn't directly call out the connection between his Forms and intelligibles in *Phaedo* it is not that big of a leap to derive the connection, for his Theory of Forms is articulated and laid out most clearly in the Allegory of the Cave in the *Republic*, which is in all likelihood and later more mature work of Plato's.

⁴² For a more detailed look at this "affinity argument", see *Ancient Theories of the Soul* by Hendrik Lorenz, published in the 2009 edition of the Stanford Encyclopedia of Philosophy, pgs. 10-14 which can be found here: <http://plato.stanford.edu/entries/ancient-soul/>.

What is also presumed in this argument in *Phaedo* is of course that it is the Soul which gives life to the body, a presumption that permeates the work (and virtually all of Greek philosophical doctrine before and after Plato in fact). This is perhaps best illustrated by the notion that the idea of “being alive” in classical Greek is typically and broadly described by the word *ensouled*, or “*empsychos*”. And the Soul, throughout Homer’s work as well in the Pre-Socratic philosophers straight through Plato’s and Aristotle’s work, is not only presumed to be that principle which gives life to animate things, but also that which is the source of a variety of basic moral and ethical constructs which characterize the human condition, namely courage, valor and other human characteristics that are aspired to in the not only the Homeric tradition, but then as we see in Plato’s *Republic*, the notion of Justice as well.

In the *Republic*, perhaps the greatest if not one of the greatest works attributed to Plato, his intention is to lay out and describe the notion of Justice, and how that in turn is related to the individual, happiness in general, and the implications for the ideal state of governance, a topic that was of great importance to the ancient peoples of the Mediterranean at the time period when this philosophic revolution takes place, being that the majority of Plato’s young life was marked by extreme political strife and war, namely the [Peloponnesian conflict](#) which pitted two very different forms of government against each other, i.e. the tyranny of Sparta against the democracy of Athens.

In the *Republic*, or *On Justice*, Plato is forced to come up with a somewhat more coherent view of the Soul relative to what we find in *Phaedo*, to describe its facets in a more detailed and thorough way than he does in *Phaedo*, primarily because he is not simply (not that there is anything simple about it) dealing with the establishment or discussion of the immortality and imperishable nature of Soul, but dealing with the idea of whether or not there is an ideal state of the Soul that individuals should aspire to, a concept which Plato attaches to and feeds into his concept of Justice, which he perceives to be or even defines as, the ideal state of the Soul, from which the ideal state itself ultimately derives.

In this conception of the Soul, which is thread and alluded to throughout the *Republic*, particularly in Book 1, Book 4 and then less directly in Books 8 and 9 which deal with the corrupt forms of state and soul, Plato outlines not only the Soul’s basis in giving life, animating the body, but also its role in establishing order, or *reason* (logos) in the life of the individual, as well as being the source of what he refers to as *spirit* (loosely defined as the guiding force of individuals to seek honor and respect by their peers and is naturally aligned to reason to a great extent), and *appetite* which is described as the desire for food, drink and sex. In toto then what we find in the *Republic* is a coherent view of the Soul as the source of the basic driving needs of man, the alignment or proper direction of which leads to the living of a just, and in turn a happy, life, from which collective justice and collective happiness of the state can be derived or found. The proper

functioning and use of the deliberative and rational faculties of man is called out as the source, the pillar, from which the just man, the happy man, is derived:

Then next consider this. The soul, has it a work which you couldn't accomplish with anything else in the world, as for example, management, rule, deliberation, and the like, is there anything else than soul to which you could rightly assign these and say that they were its peculiar work?" "Nothing else." "And again life? Shall we say that too is the function of the soul?" "Most certainly," he said. "And do we not also say that there is an excellence virtue of the soul?"⁴³

Perhaps the most definitive and mature view of Plato's Soul, and the explicit relationship to God (or gods, "theos" as the case may be), is provided to us in *Laws*, what is viewed as his last and perhaps greatest work. In *Laws*, Plato explores the nature and origin of law within the state, in many respects covering ground that has already been covered in the *Republic*, but with perhaps a more cynical, or realistic point of view, reflecting perhaps his perspective on the ideal state toward the tail end of his life after coming to grips with the limits of philosophy within the sphere of power, i.e. politics. It can be looked at as perhaps a more practical treatise on political philosophy where the ideal state of the individual, i.e. Justice, and its attainment and relationship to the ideal state is somewhat abandoned in lieu of the role, and source, of law that is required to govern a state's citizens that perhaps are incapable of, or are ultimately flawed, in their pursuit of Justice and virtue.

As the nature and origin of laws are explored in *Laws*, the question of imposing piety toward God (or again "gods", "theos" as the case may be) is brought up and therefore the discussion as to whether or not the God/gods can be said to exist is naturally covered. Leaving aside the question of whether or not Plato's view of God in *Laws* specifically (which arguably records the penultimate views of Plato toward the end of his life) is monotheistic or polytheistic in nature – the latter of course being the more likely interpretation even though it is not alluded to specifically – Plato does appear to take a firm stance in theism proper, i.e. the belief that the Gods do in fact exist.

His argument is at it turns out one based upon the existence of the Soul, the Soul being defined again as the source of movement of the body, or of a body, for he abstracts the notion of the human Soul to astral elements as well, moving up the chain to argue that if we indeed believe in the individual, human Soul, and in its nature as the source of movement, of life and order, for the

⁴³ Plat. Rep. 1.353d. Text from <http://www.perseus.tufts.edu/hopper/text>, *Republic* Chapter 1 section 353d.

individual, then we must in turn believe that the stars, the planets, the universe itself also has a Soul with the every same attributes. Good and evil are aligned, as they are in the Republic within the context of the discussion of Justice, with the proper balance and well-functioning of the Soul – the important connection being made between good, balance, order, and reason, hence establishing perhaps Plato’s greatest contribution to the West, the clear distinction of reason and order above all else as the primary agents of human society and civilization.

Ath. Yes, very true; the soul then directs all things in heaven, and earth, and sea by her movements, and these are described by the terms-will, consideration, attention, deliberation, opinion true and false, joy and sorrow, confidence, fear, hatred, love, and other primary motions akin to these; which again receive the secondary motions of corporeal substances, and guide all things to growth and decay, to composition and decomposition, and to the qualities which accompany them, such as heat and cold, heaviness and lightness, hardness and softness, blackness and whiteness, bitterness and sweetness, and all those other qualities which the soul uses, herself a goddess, when truly receiving the divine mind she disciplines all things rightly to their happiness; but when she is the companion of folly, she does the very contrary of all this. Shall we assume so much, or do we still entertain doubts?⁴⁴

Aristotle’s Soul: The “Form” of Man

The psychological framework put forth by Aristotle (in *De Anime* primarily) builds upon the structure set forth by Plato and also takes the cognitive/rational faculties of man as the distinguishing characteristic of man over animals and plants. His psychological framework sits within his overall metaphysical system of change and causation however, leading him to draw different conclusions regarding the Soul’s immortality as in his model universals do not exist independent of particulars. That is to say that to Aristotle the Soul or mind/body system is hylomorphic like anything else that can be said to “exist” and consists of form (Soul), the formal cause, and the body (the material cause) represents the actualization of the Soul’s potential and the form of said body, its Soul, cannot be said to exist without its existence physically.

Aristotle also goes into further depth than Plato outlining the various characteristics or functions of the Soul, a principle which from his perspective is characteristic of all animate life and consists

⁴⁴ Plato *Laws*, X. Translation by Benjamin Jowett. From <http://www.sacred-texts.com/cla/plato/laws/laws09.htm>.

of nutritive, perceptive, mental, desirous, and imaginative faculties. In his model, perception is unique to the animal and human classes of life, and thinking (*nous*) is unique to humans, forming as it were a hierarchy of animate life with the plant kingdom at the bottom, the animal kingdom being capable of perception in the middle, and man being capable of intellectualization and thinking at the top.

Aristotle starts with and does not deny the fundamental property and characteristic of the Soul giving life, animating, the human being. He categorizes all living things as having Soul, from vegetation and plant life, to animals, to of course human beings, broadening in some sense the notion of Soul from its Homeric and Greek semantic heritage from which Aristotle starts his analysis.

To comprehend Aristotle's notion of Soul, a topic which is covered in detail in his treatise *De Anima* (On the Soul), one must have some context of how Aristotle views the world, substance, existence and knowledge, for it is in this framework that Aristotle describes and expounds upon the nature of the Soul finding it a unique notion that doesn't necessarily fit into his overall description of reality but at the same time could be subject to similar delineations and categories into which the rest of his metaphysics (first philosophy) and natural science (physics) falls.

It is within Aristotle's overall metaphysical framework based upon the notion of what has come to be called [hylomorphism](#) - a 19th century philosophical term to denote this peculiar Aristotelian concept of form and matter dualism that is a clear derivative and expansion upon Plato's Theory of Forms (from the Greek words "*hyle*" or "*hulê*" and "*morphê*" which mean "matter" and "form" respectively) – that Aristotle places the strange and unique notion of Soul, its form giving rise and shape to the matter of the body, and the overall the mind/body system fitting into his theory of causation in general. To Aristotle, once the Soul perishes, the matter of the body perishes along with it, giving rise to the question of the immortality of the Soul which is a point where he differs somewhat from his predecessor Plato who asserts its immortality whereas with Aristotle it is left somewhat less clear, he choosing to focus on the physics of the Soul rather than what can be termed theological questions.

In this overall philosophical framework then, Aristotle sees the Soul as part of natural philosophy given that it, in its *hylomorphic* form, is an element of the world of change – *ousia*, substance or essence. The Soul of Aristotle is a combined substance made up of matter and intellect (form) and is therefore subject to change and yet at the same time the psychological and mental states of man, the artifacts of change in the human mental and cognitive state, are not necessarily simply qualities of the body itself but of something more sublime. Therefore he concludes that

the Soul is a unique substance, a unique aspect of being or that which is said to exist, and hence the subject of unique analysis in his treatise *On the Soul*, or *De Anima*.

With Aristotle we have the first substantive description of the characteristics of the Soul, namely nutrition, perception and mind, the first two qualities being present in all forms of life, and the last of which, mind or “nous”, being a unique quality of man. These qualities establish a hierarchy of life of sorts, with the base set of beings having the ability to take nourishment and reproduce (plants, vegetation, animals and man), perception being a faculty shared by all of the animal kingdom including man, and again man being the only life form, the only type of Soul capable of intellectual capability and Reason. Hence with Aristotelian the boundaries of psychology (again literally the “study of the soul”) covers not only the appetites or desires of all life forms – the desire to eat, sleep and procreate – but also the perceptive faculties which ground awareness of the material and physical world, as well as the intellectual faculty which recognizes and perceives relationships between substances, causality, as well as more abstract concepts that dwell in the realm of intelligibles (in contrast to the world of particulars and roughly corresponding to Platonic Forms).

With the notion of the perceptive faculty we have really the first true concept of mind and its properties introduced to the West in detail, the quality being defined as that which distinguishes the animals from the plants and vegetative world and essentially being the mental extension of sense perception – i.e. sight, sound, taste, touch, hearing, etc. Not all animals have all five senses but to Aristotle not all senses are required in order to have the perceptive faculty, the faculty is simply the ability to process sensory information so as to facilitate and support life and procreation and successful navigation of the physical and material world.

Leaving aside the mechanics of perception from Aristotle’s point of view, which at some level is wrapped around a notion of the perception of change or alteration in the object which is perceived, he describes the notion of “nous”, intellect or reason, as that which facilitates understanding or knowledge, and again that which distinguishes mankind from the rest of the *ensouled* creatures (in classical Greek literature and texts throughout the pre-Socratic period the word “ensouled” or “*empsychos*” in Greek is used to denote being alive⁴⁵).

This intellectual faculty is described in relation to, and with analogy to, the perceptive faculty in the sense that the perceptive faculty requires an object of perception and a faculty of mind which can in fact perceive it, the faculty itself being the mediator of sorts between the two distinct ideas or concepts, the intellectual faculty is described as that which can receive and understand an intelligible form (again think Platonic Forms here), thereby in some sense unifying or connecting

⁴⁵ *Ancient Theories of the Soul* by Hendrik Lorenz, Stanford Encyclopedia of Philosophy Summer 2009 Edition, page 4. See <http://plato.stanford.edu/entries/ancient-soul/>.

(in his words “made like”) the two distinct ideas, in this case the mind and the object of reason or intellect, i.e. the Form which is the subject of thought. This model lends itself to Aristotle’s distinction between the world of particulars, the realm of perception, and the realm of universals, the realm of the intellect.

Despite Aristotle’s commitment to the Soul as the form of the body, i.e. its cause or that which brings it into being, he cannot seem to commit to the Soul’s existence beyond death, a notion that is somewhat inconsistent with the rest of his metaphysics of intelligibles existing independent of particulars in time and space. If nothing else it speaks to the unique and distinct nature of the Soul that despite Aristotle’s ability to fit it into his overall metaphysics, still remains a somewhat curious and unique “thing”, driving the existence of the material body but somehow attached to it in a way that is different than say how the form of a statue exists in the realm of intelligibles independent of, and not bound by, the statue itself.

. . . the soul does not exist without a body and yet is not itself a kind of body. For it is not a body, but something which belongs to a body, and for this reason exists in a body, and in a body of such-and-such a kind (414a20ff)

To Plato and Aristotle then, the “ordering” or “rational” faculty of man, “logos”, was closely interwoven into the concept of the human Soul (psuche in Greek which derives from the Greek verb “to blow”) and furthermore came to be recognized as the determinative feature of the human psyche that facilitated what we today might call “illumination”, or in Greek philosophical parlance “knowledge”, the latter of which was viewed in direct contrast to “faith” or “opinion” (doxa in Greek).

Although the details of the basic constituents of the Soul and its immortality as put forth by Plato and his successor Aristotle, as well as the form of the single primordial creative principle from which the universe emerges (Plato’s One and Aristotle’s unmoved mover) were hotly contested topics in the philosophical traditions that emerged from Plato’s wake, all Hellenic philosophical traditions in one form or another believed in the existence of the Soul, and that within it resided the seat of the rational faculty as well as the appetitive faculty (desires), and that theologically speaking there was a single creative principle from which the universe originally emerged. These principles remained more or less consistent views throughout all the classical Greek philosophic traditions that followed Plato and even into the various Roman/Latin and then Christian theological and philosophical traditions which stemmed from the very same philosophic heritage.

The Stoic Soul: Corporeal Spirit

But perhaps Stoicism's greatest contribution to the Hellenic philosophical tradition in antiquity, or at least its most unique, was in the domain of psychology, which in antiquity was the study of the Soul given that the mental faculties were assumed to be integrated into the Soul and not separate from it as in modern parlance. Because the Stoics more so than the Academy or even the Peripatetic school, placed psychology as the primary determinative principle through which this goal of eudemonia could be achieved. The distinguishing characteristic of this commanding faculty (*hêgemonikon*) of the Stoics - which again is the seat of all (higher) aspects of the human Soul or psyche and was located in the heart - is the role of what they refer to as *sugkatathesis*, a word typically translated into English as "assent" but within the context of Stoicism implies an approval or agreement of a collection of facts, the facts in this case being that which is presented to the mind ("presentations" or *phantasiai*) which come from the physical world and are observed by the senses and which in turn make impressions upon this commanding faculty of the mind.

The analogy that was used by early Stoa to describe mental impressions, by Cleanthes at least (which he arguably pilfered directly from Plato's *Theaetetus* (191d) where Plato discusses epistemological issues at length), and held to by Diogenes Laertius in his description of Stoic psychology, was the imprint (*tupôsis*) upon wax of a signatory seal, so did these presentations make an imprint on the mind. Regardless of the metaphor used, the implication was that to the Stoics the sensory perceptive experience, what today we might refer to as cognition, was not necessarily simply an intellectual or mental grasping of the qualities or attributes of the object of perception, but a collective experience of cognition which impacted and affected the Soul in some way which in turn drove their epistemological position –with Diogenes Laertius telling us that the Stoic criterion for truth is an impression which aligns perfectly with the object itself, a somewhat circular definition no doubt (and one that is vigorously attacked by the Skeptics) but a crucial component of not just Stoic epistemology which fell under the heading of logic/dialectic but also played a critical role in its ethical doctrine as well.

A presentation (or mental impression) is an imprint on the soul: the name having been appropriately borrowed from the imprint made by the seal upon the wax. There are two species of presentation, the one apprehending a real object, the other not. The former, which they take to be the test of reality, is defined as that which proceeds from a real object, agrees with that object itself, and has been imprinted seal-fashion and stamped upon the mind: the latter, or non-

apprehending, that which does not proceed from any real object, or, if it does, fails to agree with the reality itself, not being clear or distinct. (Hicks, R. 1972 [VII:45-46])

Alternatively, some Stoics described impressions as an “affection” (*pathos*) of the Soul, from which our modern English word “apathy” derives in fact, straight from the Stoic tradition more or less. These “alterations” (*alloiôsis* or *heteroiôsis*), which came from these impressions of the physical world upon the commanding faculty (*hêgemonikon*) of the Soul, were processed by the rational part of the Soul, and this notion of proper assent to these modifications of the Soul was the key not only to their psychological framework but the key to their system of ethics and the goal of the philosophical endeavor from their perspective.

The Stoics say the soul is constituted of eight parts; five of which are the senses, hearing, seeing, tasting, touching, smelling, the sixth is the faculty of speaking, the seventh of generating, the eighth of commanding; this is the principal of all, by which all the other are guided and ordered in their proper organs, as we see the arms of a polypus aptly disposed. (Goodwin, W., 1878 [OF THOSE SENTIMENTS CONCERNING NATURE WITH WHICH PHILOSOPHERS WERE DELIGHTED. Book IV, Chapter III])

The senses, which to the Stoics and to Aristotle as well from which they borrowed many of their psychological and cosmological themes and intellectual building blocks, included the reproductive faculty, and were subservient to this commanding faculty, and their proper management or temperance was the tool, the means of reaching the goal, for the Stoic philosopher. In their psychological scheme, the mind receives sensory information and processes the information accordingly, but unlike the alternative psychologies offered by Plato and Aristotle which broke the Soul out into rational and irrational parts, the Soul in Stoicism was looked upon as an entirely rational entity, reflecting the divine intellect (again *logos*), capable of being entirely governed by reason – as opposed to the passions or emotions - and therefore pure wisdom, infallible judgment, was not only possible but was in fact the goal, or end, of the Stoic philosopher.

With respect to the immortality of the Soul, although the Stoics did not consider the Soul to be immortal as Plato held given his doctrine of eternal and ever present Ideas of which the Good was the ultimate level of abstraction and of which the Soul was an elemental part, they did ascribe to the persistence of the Soul somewhat beyond the death of the body, particularly associated with perfect Stoic sages. However, they did not have as materialistic a conception of

the Soul as the Epicurean school did, the latter having adopted Democritus's atoms as the primary building blocks of the universe of which to them the Soul was no exception, albeit consisting of finer matter than basic material objects.

But the Soul and all its constituent parts represented a specific manifestation of the universal Soul, and to connect these two metaphysical constructs the Stoics created an elaborate philosophical system that although shared many characteristics with the Platonic and Peripatetic schools that preceded it (and to a certain extent even elements of the Pythagoreans and Heraclitus at least according to ancient scholars) represented a unique contribution to the philosophical landscape and one that became heavily entrenched in Christian theology.

These ideas that the competing philosophical schools had with respect to the nature of the Soul fundamentally shaped their ethical doctrines as well as the tools which they described to achieve happiness (eudaimonia), which again was the end (telos) of all the philosophic traditions in antiquity.

Sacred Geometry in Greek Philosophy

One of the innovative attributes of early Hellenistic philosophy is the role that mathematics, numbers and geometry played in the philosophical systems. This clearly reflected a long-standing belief that the universe was constructed and evolved based upon rational, logical principles and basic math and geometry fit very nicely into that paradigm. Of course this laid the foundations of modern science even to this day but it is often overlooked that this was (another) invention of the Greeks⁴⁶. It is said that above the door of the Academy was written, *“let no one ignorant of geometry enter here.”*

When looking for the origins of the theological study of mathematics within the Greek philosophical tradition we must start with Pythagoras (c. 570 – 490 BCE), whose strong connection to mathematics survives even to this day with his continued association with the Pythagorean theorem for example. But much of the philosophical and mystical aspects of the Pythagorean school are somewhat lost by modern academics and scholars who look for a specific documented philosophical position to attribute to him and/or his followers. If he wrote anything it doesn't survive, and although he is frequently mentioned in the writings of Aristotle and Plato he's not given much credit for any particular philosophical position or cosmology, outside of the attribution of mathematics, and numbers specifically, as a window into the cosmic world order, a mathematical world order that governed not only earthly activities and the disposition and behavior of man, but also the behavior and functioning of the celestial and heavenly world order – again following the presupposition that in man could be found the mirror of the cosmos at large.

Pythagoras and the Tetraktys

The problem with trying to truly understand the philosophy of Pythagoras is that the literature regarding who he was and what he believed and taught only survives from (direct) sources that wrote some five or six centuries after his death at least – with the Neo-Platonists Iamblichus (c. 245 – 325 CE) and Porphyry (234 – c. 305 CE) as well as the historian Diogenes Laertius (c. 200-250 CE) being perhaps the best full accounts of his life that still extant although we do have

⁴⁶ The notable exception is the I Ching in early China which clearly contained embedded within it strong numerological symbolism, in particular the binary number system – 2, 4, 8, 64 – which the ordering and framework of the hexagrams therein.

several contemporaneous references to him beyond just Plato and Aristotle such as Herodotus (c. 484 – 425 BCE) for example, speaking to how well known he was in his time.

What we do know is that before he settled to teach in Italy to teach he traveled widely and spent a good deal of time in Egypt, being initiated into one the priestly sects there, and most likely spent time studying in the Near East as well given his school's deep associations with ritual, dietary restrictions, and reincarnation. What is clear however is that for Pythagoras and his followers, numbers and their relationships - i.e. geometry - was a sacred science which facilitated knowledge of human as well as celestial affairs and governed the world order.

To the Pythagoreans, each of the numbers from 1 to 10 had specific and significant esoteric and metaphysical meanings above and beyond simple numbers that were used for calculation. The One, or the Monad, represented the indivisible source of all things, unity and perfection. Two, or the Dyad, represented opposition or inequality and was the first element in the creative process of the universe from the Monad. The Triad, or the number three, represented wholeness and knowledge, the powers of prophecy and fate, and was reflected in the tripartite Soul⁴⁷. The Tetrad, of the number four, represented completion and was reflected in the four elements and the four seasons as well as the four mathematical sciences of arithmetic, music, geometry and astronomy. This number four, or the first four numbers in fact, came to be representative of the Pythagorean cosmic order and was reflected in their most sacred symbol the [*tetraktys*](#), a triangular figure that consists of 10 points, with a base of 4, then 3, then 2, then 1 points, synthesizing their numerological philosophy and coming to be representative of their philosophy as a whole in antiquity.

Probably the best source of the content of Pythagorean philosophy outside of Plutarch, Diogenes Laertius and Porphyry who all write some 6 or 8 centuries after Pythagoras lives and after the tradition surrounding him takes on somewhat mythical status, is Aristotle who writes the following brief synopsis of Pythagoras's philosophical principles in *Metaphysics* Book I as he surveys the philosophical landscape prior to laying out his own alternative metaphysical framework:

Contemporaneously with these philosophers and before them, the so-called Pythagoreans, who were the first to take up mathematics, not only advanced this study, but also having been brought up in it they thought its principles were the principles of all things. Since of these principles numbers are by nature the first, and in numbers they seemed to see many resemblances to the things that exist

⁴⁷ The analogy to the Triad is sometimes given to the tripod which upheld the bowls that were stared into by Delphic priests before delivering their prophecy or advice.

and come into being—more than in fire and earth and water (such and such a modification of numbers being justice, another being soul and reason, another being opportunity—and similarly almost all other things being numerically expressible); since, again, they saw that the modifications and the ratios of the musical scales were expressible in numbers;—since, then, all other things seemed in their whole nature to be modeled on numbers, and numbers seemed to be the first things in the whole of nature, they supposed the elements of numbers to be the elements of all things, and the whole heaven to be a musical scale and a number. And all the properties of numbers and scales which they could show to agree with the attributes and parts and the whole arrangement of the heavens, they collected and fitted into their scheme; and if there was a gap anywhere, they readily made additions so as to make their whole theory coherent. E.g. as the number 10 is thought to be perfect and to comprise the whole nature of numbers, they say that the bodies which move through the heavens are ten, but as the visible bodies are only nine, to meet this they invent a tenth—the 'counter-earth'. We have discussed these matters more exactly elsewhere.⁴⁸

The legacy of Pythagoras then is *sacred geometry*, the notion that basic mathematical principles were a reflection of the divine and by contemplating them one could come to know, have knowledge of, the Monad, the source of all things. From this association we are left with not just the Pythagorean Theorem whose discovery is ascribed to him⁴⁹, but also the sacred symbol tetraktys which sums up his esoteric philosophy in symbolic form.

While there is reason to believe that Pythagorean philosophy may have been more an amalgamation and synthesis of Egyptian, Babylonian, Chaldean and Magian (Persian) elements rather than a new and unique philosophical system per se, what can be said about Pythagoras is that he is absolutely instrumental in introducing philosophy as a practice in and of itself to the Greek populace in general, with words such as *kosmos* and *philosophía* first use being attributed to him as well.

⁴⁸ Aristotle, *Metaphysics*; Book I, Chapter 5. Translation by W.D. Ross. From <http://classics.mit.edu/Aristotle/metaphysics.1.i.html>.

⁴⁹ Its fairly well established that the Pythagorean Theorem itself was in all likelihood not discovered by Pythagoras, as there is evidence of the knowledge of this theorem by the Babylonians some thousand years earlier. See <http://aleph0.clarku.edu/~djoyce/mathhist/plimnote.html> for an overview of the Plimpton 322 mathematical tablet which is dated in the first half of the second millennium BCE in Old Babylonian script which shows strong evidence of knowledge of Pythagorean triples, i.e. where a, b and c in the Pythagorean Theorem are all positive integers.

Platonic Cosmology and Geometry in the Timaeus

After Pythagoras, the next in line in the propagation of core mathematical constructs, not just numbers themselves but again geometry as well, as key elements of the universal world order, is Plato. It is said that outside of the Academy which was founded by Plato was inscribed “Let no one ignorant of geometry enter”, and although whether or not the inscription actually existed cannot be confirmed, it is very well consistent with the philosophical system that Plato sets out in his dialogues, especially the *Republic* and the *Timaeus* which cover his Theory of Forms, its relationship to numbers and mathematics in general, and his theory of Platonic solids which underlies his physical cosmology.

And particularly with the Platonic school, believed to have been influenced by the Pythagoreans who preceded them, we see a prominent role for numerology and geometry that is hinged not onto the cosmological and physical view of the school - how the universe came to be and is maintained – but how the universe itself in all its grand mystery could be understood. The gift of mathematics, geometry, as a sacred science was not invented by the Greeks no doubt, but its emphasis along with much of its breadth and early explanation, is a legacy of the Greeks.

In the *Timaeus* when Plato speaks of time being governed by the heavens, which in turn is governed by number, math and geometry, he is speaking quite literally. As to the ancients from the time of recorded history on, and even today, the cycle of days, months and years – our calendar basically – is governed by the heavens. For the daily cycle is of course bound by the passage of day into night which of course is governed by the Sun and the Moon and the cycle of the year is governed by the passage of the Sun along the ecliptic through the constellations of the Zodiac as viewed by the Earth (what we know today is the Earth’s passage around the Sun). To this end, even the days of the week were established to reflect the heavens as they are named after the various planets that were known to the ancients which were in turn named after various gods except for Sunday and Monday which were named after the Sun and Moon respectively. Our notion of time itself then, is indeed defined by our relationship to the heavens. It is not too big of an intellectual leap to see the connection in Plato’s cosmology between man whose core physical constituents are geometric in nature, to the kosmos itself who is governed by the same basic principles and laws from which our notion of time itself is construed.

The influence of mathematics and numerology on Plato’s philosophy can probably best be seen by later interpreters of his works, as his Being and Becoming, and his notion of the Good which represents the Form of Forms is transformed into the One of the Neo-Platonic tradition, the principle being very squarely aligned with the Pythagorean Monad. Furthermore, in

interpretations of passages in the *Republic*, reference to numerical and mathematical constructs as things that can be conceived of only in thought, i.e. examples of Forms or Ideas⁵⁰.

In Plato's *Timaeus* we have a more systematic outlining of the role of mathematics and geometry in the universal world order. Here we can find not only some traces of Pythagorean thought (as much emphasis is given to the role of triangles in the formulation and construction of the physical world, one of which is Pythagorean so to speak) as well as the role of geometry in general as he outlines a core set of geometric shapes which have come to be known as [Platonic solids](#) that form the basic shape and building blocks of the four primary elements - earth, air, water, fire - from which the physical universe is constructed.

In the *Timaeus* Plato describes a universe that is living in and of itself, i.e. the World Soul, which is governed by a fundamental order, i.e. Pythagoras's *kosmos*. The universal order that Plato speaks of one which akin to eternal Being but yet is in motion, and is governed by *time* which in turn is governed by number and basic mathematical principles. This concept of time, its association with number and the movement of the heavenly bodies themselves, is a core characteristic of the World Soul, the universe, and is one of the key attributes of the *kosmos* itself.

Plato further outlines a hierarchy of beings in the *kosmos*, one which sits with the Demiurge at the top of the hierarchy and under him you have the various gods who are associated with the heavens and then the world of mortals which are manufactured by the gods, all of which are created via the Demiurge and which represent manifestations of *nous*, or the intellect of the Demiurge, a principle which came to be known as Intellect itself in later Neo-Platonic interpretations of the *Timaeus* and which encapsulated the world of Forms and Ideas which represented the core of Plato's metaphysics⁵¹.

In Plato's "likely account" (*eikôs logos*) or "likely story" (*eikôs muthos*) of the universal creation described in the *Timaeus*, the Demiurge or World Soul, fashions the corporeal world from the two primordial substances of the universe - what are referred to by most translators as the "Same" and the "Other" denoting one's (the Same) indivisible nature and the Other's divisible nature - and an intermediary substance between the two and created two great circles, the outer of which he made the motion of the Same and the inner of which he made the motion of the Other, each moving in opposite directions. The inner circle he then split into seven parts to yield

⁵⁰ Plato, Republic 7.526a.

See <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0168%3Abook%3D7%3Asection%3D526a>

⁵¹ See <https://faculty.washington.edu/smcohen/320/timaeus.htm> for a good summary of Plato's cosmology as outlined in the *Timaeus*.

the 7 celestial spheres, or 8 counting the outermost sphere of the fixed stars, i.e. the circle of the Same.⁵²

After the model itself and its motion has been established, Plato then places the divine creatures themselves, i.e. the gods, planets (“wanderers”), into their respective orbits that the Demiurge had fashioned for them, to look after and create the construct of time, mirroring the eternal and unchanging in a movable model fashioned by the Demiurge himself. The gods, or planets, as they shone in the sky were mostly made of fire, and were the most divine of all beings that were created, and subsequent to them the Demiurge created creatures of the earth, the air and the water, following the four basic elements of the material universe and each partaking in the divine and intelligent harmony of the universal creation, all moving according to number and making up mankind’s notion of Time.

Time, then, came into existence along with the Heaven, to the end that having been generated together they might also be dissolved together, if ever a dissolution of them should take place; and it was made after the pattern of the Eternal Nature, to the end that it might be as like thereto as possible; for whereas the pattern is existent through all eternity, the copy, on the other hand, is through all time, continually having existed, existing, and being about to exist. Wherefore, as a consequence of this reasoning and design on the part of God, with a view to the generation of Time, the sun and moon and five other stars, which bear the appellation of “planets,” came into existence for the determining and preserving of the numbers of Time. And when God had made the bodies of each of them He placed them in the orbits along which the revolution of the Other was moving, seven orbits for the seven bodies.⁵³

After outlining the creation of the heavens and living beings in what Plato refers to as the “operations of Reason”, he then outlines what came into existence via “Necessity”, starting again with the four elements which are the basic constituents within the “receptacle” of the universe, the nurse of all Becoming and that which houses the copy of the World Soul.

⁵² The actual dimensions, or more properly put lengths, of the substance that was used to create the different circles can be viewed as a slight variant of Pythagoras tetraktys (the numbers 1, 2, 3 and 4 laid out as the dimensions of a triangle in descending order) as Plato uses the same series of digits except a power of 2 for even numbers and power of 3 for odd numbers to create the series, as his basic dimensions for the different circles that are fashioned by the Demiurge to construct the celestial spheres are 1, 2, 4, 8 and 1, 3, 9 and 27 respectively, albeit not in that order. See Plato *Timaeus* 34a ff. at <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0180%3Atext%3DTim.%3Asection%3D34a>.

⁵³ Plato, *Timaeus* 38b-38c. *Plato in Twelve Volumes*, Vol. 9 translated by W.R.M. Lamb. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1925. From <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0180%3Atext%3DTim.%3Asection%3D38c>

Given that these four elements have depth and exist in three dimensional space, Plato, influenced no doubt by the atomist Democritus and Pythagoreans before him, posits that these basic elements at their core consist of geometrical shapes, of which the triangle is the most fair, or most perfect. The rectangular isosceles triangle and the rectangular scalene are the ones which he uses for the basic building blocks of the elements, for from these, geometrically speaking, all other triangles can be constructed. In turn from these triangular shapes, he describes the construction of what have come to be known as the [Platonic solids](#), each of which are assigned one of the basic elements. The solids are the tetrahedron, or pyramid which is associated with fire, and the octahedron which is associated with air, the icosahedron which is associated with water, and the cube which is associated with earth.⁵⁴

In brief mathematics, geometry and number theory was no doubt a strong corollary and underlying principle for all of the Hellenic philosophical systems but most notably in the legacy of the Pythagoreans and Plato. It's not clear where these themes originated from (perhaps Dynastic Egypt but there is no strong evidence of this) but no doubt the ancients understanding and early comprehension of the movement of the heavens – the stars and planets – which they did study in painstaking detail, lent credence to their premise that the underlying order of the universe must be based upon some mathematical and geometrical foundations. A theme of course that is prevalent and has stayed with us in the West to this day.

⁵⁴ *Timaeus* 53c -56c.

The Legacy of Hellenic Philosophy

In Plato's *Apology*, where Socrates defends himself against the charges of "*corrupting the young, and by not believing in the gods in whom the city believes*"⁵⁵, Socrates tries to explain the meaning of the Delphic Oracle's anointment of him as the most wise man in Athens, as well as explain the lengths to which he will go to establish the supremacy of wisdom over blind religious dogma.

*This investigation has led to my having many enemies of the worst and most dangerous kind, and has given occasion also to many calumnies, and I am called wise, for my hearers always imagine that I myself possess the wisdom which I find wanting in others: but the truth is, O men of Athens, that god [theos] only is wise; and in this oracle he means to say that the wisdom of men is little or nothing; he is not speaking of Socrates, he is only using my name as an illustration, as if he said, He, O men, is the wisest, who, like Socrates, knows that his wisdom is in truth worth nothing. And so I go my way, obedient to the god, and make inquisition into the wisdom of anyone, whether citizen or stranger, who appears to be wise; and if he is not wise, then in vindication of the oracle I show him that he is not wise; and this occupation quite absorbs me, and I have no time to give either to any public matter of interest or to any concern of my own, but I am in utter poverty by reason of my devotion to the god.*⁵⁶

So as the Greek society recognized and affirmed the role of the philosopher in society, due in no small part to the contributions of Socrates, Plato and Aristotle, the branch of thought known as *philosophy*, as seen separate and apart from *theology* and *religion*, was born. And as this development occurred, the cosmological and mythological views of the ancients started to take a back seat to the more abstract constructs laid out by these ancient philosophers, leading to the introduction of a more rational and metaphysical foundation of thought in the West, as well as providing a foundation for a more critical and scientific world-view as these new metaphysical frameworks started to become more widely accepted.

Reason, logic and *mathematics* then were all born at the same time as *philosophy*, and these intellectual developments required a civilization that allowed these ideas to reign freely, what we might call today *freedom of speech* or more aptly *freedom of thought*, in order for these fields of knowledge and branches of thought to flourish and grow. If we are to believe the accounts of Plato and Xenophon, Socrates gave his life in order to demonstrate his firm belief in the

⁵⁵ From the Stanford Encyclopedia of Philosophy entry on Aristotle. Found at <http://plato.stanford.edu/entries/aristotle/>.

⁵⁶ From Plato's *Apology*. Jowett's translation at <http://classics.mit.edu/Plato/apology.html>.

supremacy of truth, knowledge, wisdom, virtue, and the rule of law, over one's own personal belief systems or blind faith in the mythological and cosmological constructs that had underpinned Greek society for centuries. With his execution then, and this was a critical step in the evolution of science itself, came the beginning of western man's *faith* in the power of Reason over theological, what came to be known as *religious*, dogma and mythology.

So if we are to look for the birth of philosophy and metaphysics, and we are to believe Plato's depiction of Socrates as reflected in his early dialogues, it is not too far fetched to conclude that it was Socrates who established the supremacy of knowledge, truth and virtue over religion or theology in the West, doctrines and principles which had hitherto been questioned only at great peril. Socrates died, again if we are to believe Plato's account of these events, in order to establish this new world order, or at least to create an environment in which these abstract ideas and constructs could be more freely explored by those who walked in his footsteps.

It was Plato who carried on this tradition began by Socrates into the search for wisdom and truth for their own sake. Plato's Academy was founded to train men in this art of the pursuit of knowledge, and teach its students *the means* by which these lofty ideals could be ascertained, as illustrated in his dialogues, all of which challenged the reader to look at various points of view of a certain topic or idea, and come to their own conclusions about the truth or what was right. Plato's emphasis on dialectic, a rational tool that even Aristotle did not abandon, represented the cornerstone of Plato's teachings, for it *implied* that reason and logic were more relevant and more important when trying to ascertain wisdom or truth. And it was within this framework of dialogue within which he presented his readers and students his metaphysical world view and its loosely coupled philosophical foundation, namely his Theory of Forms and his belief in the existence of some type of anthropomorphic God, not as indisputable facts of reality but as theses and hypotheses that were to be analyzed, thought through and molded by later students of his work.

It was Aristotle however, who spent decades learning from Plato and others in the Academy which Plato founded, who expounded upon Plato's thin metaphysical framework and created a much richer and fleshed out rational foundation to describe the world around us, or that which could be considered real, along with the rational and mathematical building blocks with which the all subsequent branches of knowledge were to be constructed upon in the centuries to follow. And even though Aristotle's theological beliefs are not explicitly stated anywhere in his work, it is safe to say that he does not anywhere put forth any specific theological stance or dogma, the absence of which could only have been by design. Furthermore, it is not too big of a leap of faith to state that *Aristotle's theology, or his faith if you will, rested in reason itself as the instrument from which truth and knowledge can be born.*

Happiness, Order and the Harmony of the Soul

Despite the emergence of metaphysics as we know it today in classical Greece, seen most clearly in the (interpretation of) the dialogues of Plato and then more clearly elucidated in the work of Aristotle, a product of Plato's Academy, and the beginnings of the clear articulation of the role of Mind, and Reason, in not only distinguishing mankind from the rest of the species on the planet but also as the distinctive faculty of the human condition which can and should be leveraged for enlightenment, and on a more practical level happiness (*eudaimonia*), the rational aspect of the mind of man was looked at by the ancients as just one aspect of the Soul, the Soul in antiquity being the entity, the form, which encapsulates (*ensouls*) the human body and connects the individual to the cosmos as well as encompasses all of the faculties and functions of what we today call psychology or more recently cognitive science. To the ancients, the act of perception and cognition, although identified with the mind, was the means by which man could lift himself up from the basic human condition and achieve peace and harmony.

With the Ancient Greeks, we see the establishment of philosophy from which derived what we would call today *religion*, philosophy as the study of wisdom in all its aspects, including not only the wisdom of the mystery traditions, but also the tradition of the mythic poets (Homer and Hesiod), all of which were stewarded and guarded by priests and the oracle based tradition – not only in Greece, but also in Egypt, Judea (Chaldean Oracles), and even Persia (the Magi). Philosophy by definition was the attempt at establishing cohesive and complete metaphysical systems which were based upon Reason (Logos); Reason in this context being juxtaposed and complementary with direct revelation of the divine, a tradition which had been prevalent in the ages prior to written history across the Middle East, Egypt, throughout the Mediterranean and even to the East in Persia and India. The Greeks, in many cases in threat of death and martyrdom, were the first to stop and say that that we should not believe these mystery and cult traditions at face value but that in understanding the role of Mind in the cosmos, the vehicle by which life itself manifested, Truth and order (*maat* to the Egyptians and again *logos* to the Greeks) when properly understood and harmonized with, could help man to understand how best to live in this world, in harmony, and even how best to govern and manage society as a whole.

The philosophical systems of Plato, Aristotle, the Stoics, the Epicureans, and others included not only a cosmological system which presented alternative theories (or some might argue a recasting or reinterpretation of preexisting cosmologies) for the basic substrata of the universe (*archai*) as well as to how the foundational principles of the universe were created (the four

elements), along with the basic building blocks of the physical world (physics) which described the world of change within which mankind coexisted, and in turn ethics which was based upon the goal of happiness or peace of mind which could be achieved through knowledge and wisdom of the cosmos, how it related to the physical world, and understanding how man could live in harmony and balance with it. Philosophy in antiquity incorporated the ancient traditions of direct revelation and attempted to explain the role of the gods, through various cosmological mythologies, to the population at large through systems of ethics that were taught in the various philosophic schools. In all these schools however, the supremacy of the mind, seen as a reflection of the divine Mind which emanated through and was the source of the cosmos, was preeminent. The specific attributes and features of the mind itself, the role of cognition and perception, did not come to the forefront of philosophical development until the Enlightenment era however, some two thousand years later - most notably found in the work of Descartes encapsulated in his phrase “cogito ergo sum” – by which time the true meaning and import of the philosophies of antiquity had for the most part been lost in their transliteration and absorption into Christianity and to a lesser extent Islam.

Skepticism and Middle Platonism

As we look at Hellenic philosophical development during the last few centuries before Christianity takes root, despite the prevalence of competing philosophic traditions, Plato’s teachings as interpreted by his successors at the Academy not only influences succeeding Hellenistic philosophic schools but also continues to thrive in its own right. Plato’s teachings and influence, although perhaps not quite as predominantly taught or practiced by its sister Hellenic philosophies which had become widespread and popular as previously noted, was still alive and well and still formed a core part of the philosophical education of the intellectual elite during this time, many of whom went on in the in the 2nd and 3rd centuries CE to become the first Christian apologists and theologians.

Plato again espoused the supremacy of the intelligible world over the reality of the physical world, as reflected in his powerful [Allegory of the Cave](#) (which incidentally shows signs of significant Pythagorean influence given its use of the Sun and Light as the metaphor for knowledge) and espoused a certain level of skepticism or cynicism toward the physical world, the world of change or Becoming that was perceived by the senses, leading to an orthodox interpretation of his teachings by his successors at the Academy on the limits of human knowledge itself, hence its association with *skepticism*. This theme can be seen not only in his

teachings themselves and their subsequent interpretation by his followers, but also in the method which he wrote and taught - i.e. Socratic dialogue, dialectic, which implied a sort of organic or exploratory nature of reality and truth rather than the exposition or elucidation of truth in hard and fast terms. This skeptic tradition was a characteristic of the teachings of the Academy until [Antiochus of Ascalon](#) (c. 130-68 BCE) takes the scene in the first century BCE, heralding a new period in the development of Platonism⁵⁷.

Antiochus's work marks not only a significant departure from, and an effective end to, the tradition of skepticism which had been a hallmark of the Academy for several centuries prior, but it also showed clear influences of Stoic philosophy, epistemology in particular, Stoicism having become very influential in the Hellenic intellectual community in Antiochus's time. With Antiochus we have the beginning of what later philosophic historians have termed [Middle Platonism](#), "middle" because it sits between the period of skepticism which is characteristic of the teachings of the Academy after Plato's passing and the development of Neo-Platonism as reflected in the works of Plotinus, Porphyry and Proclus among others which takes shape in the third century CE, roughly running parallel with early Christianity.

In Antiochus's view, no doubt influenced by the well documented and ongoing debate between the Skeptic Academics and Stoic and Epicurean realist/materialist philosophic schools, was that in the analysis of Plato's writings taking into account his so-called "unwritten doctrines" (which we can only assume continued to be passed down through the teachers at the Academy) the mind *could* in fact distinguish between truth and falsehood, bridging the epistemological divide between the Stoics and Academics to a large extent and setting the stage for further Platonic development for the next few centuries borrowing some ideas from its Hellenic philosophic brethren. To Antiochus, Plato's philosophy was in many respects in harmony with not only Stoicism - truth could in fact be discerned from falsehood - but also those of Aristotle to a large extent as well, thereby establishing a new phase of Platonic philosophical development which espoused an epistemological view that was more closely aligned with Stoicism and the Peripatetic schools than his Academic predecessors, as well as a system of ethics which combined classically Platonic elements with some elements of the Stoic and Peripatetic schools as well, reflecting the overall philosophic synthesis that was characteristic of this time period in antiquity.

In the interpretation of Plato's cosmology during the Middle Platonic period for example, we see the two basic principles of the universe referred to as the One and the Indefinite Dyad (the Monad and the Dyad in the Pythagorean tradition), the former being the single monistic and unchanging principle from which the universe emanates latter being the pluralistic world which is brought into being by the intelligent aspect of the World Soul. This corresponds to Plato's

⁵⁷ It is believed that Antiochus was one of the teachers of Cicero.

doctrine of Being and Becoming in the *Timaeus* which lays out the basic principles of the universe (archai or ἀρχή which stems from the Greek verb “to begin”), the ordering and intelligent which combines the primary elements (earth, air, water, fire) from which the universe is constructed by the great universal craftsman. The World Soul according to Plato, the demiurge of the *Timaeus*, mediates between the realm of Ideas and the realm of matter as characterized by the world of sense perception or that which is subject to change – what he refers to as “Becoming” vs. the principle of Same, or Being. Plato’s *Being* and *Becoming* are the two primary aspects of Nature which are analogous to the One and the Indefinite Dyad in the Middle Platonic period. And also out of this doctrine comes forth a notion of that which must mediate between the two archai, an intelligent organizing principle which is referred to as Intellect in the later Neo-Platonic tradition and is referred to as Logos in the Stoic school and in subsequent interpretations of first Judaic scripture (the Pentateuch) and then Christian theology as evidenced not only in the Gospels themselves, particularly John, but also in interpretations of the Gospel by early Christian apologists such as Clement and Origen of Alexandria.

In this cosmology we see many of the same characteristics and themes of not only the mystery/mystical traditions that were prevalent throughout Greece at this time, but also similarities to the cosmological systems of the Jews (which Plato may or may have not been exposed to) and most certainly those of the Egyptians⁵⁸. This universal triad which emerges from Middle Platonic thought – the One, the Indefinite Dyad, and an active intellectual ordering principle responsible for the creation of the cosmos of which man reflected - was to have a profound impact not only Neo-Platonic thought, but also on philosophical and theological development in general for the next six hundred years or so, Christianity being no exception of course.

The Stoic cosmology was not that distinct from this Middle Platonic worldview, differing primarily in some aspects of the conception of Plato’s World Soul and how active and integrated it was within the universe which was its byproduct as well as the fundamental nature of the physical world and its constituents, focusing on fire and air being the active ingredients from which the primary governing element of the universe, the *pneuma*, originated. Of course the Stoic focus on the primacy of the physical world over the mental and immaterial world of Ideas as Plato put forth was the source of its distinguishing psychological views which focused on the proper functioning of the individual mind via the discriminative faculty (*hêgemonikon*) rather than the meditation on the abstract principles in the realm of Ideas.

⁵⁸ Plutarch writing at the turn of the first century CE in fact authored a piece, *On Isis and Osiris*, citing the similarities and basic consistency of Platonic cosmology to not only Egyptian mythology (in particular the myth of Isis, Osiris and Horus) but also may of the other pre-Socratic Greek cosmologies as well as Chaldean and Persian (Zoroastrian) cosmological traditions.

Christianity and Neo-Platonism

What must be kept in mind when reading about the ancient Greek philosophical schools and their respective influence not only on the development of Christianity, but also on ancient interpretations of the Old Testament (which were of course incorporated to a large extent by Christianity) as well as Arabic/Muslim philosophy, is that perhaps their most lasting contribution was not the philosophy itself, but the academic and intellectual bent that all of these schools shared which was handed down through the West all the way through the Middle Ages and survives to a large extent in the academic tradition that is a hallmark of Western education today. It is no accident that our word *academic* derives from the name of Plato's school in Athens - not to mention the influence Aristotle's work has had on modern science at the very least from a semantic perspective in delineating the branches of science as well as the meaning of "science" itself, stemming from Aristotle's epistemological focus even though this connotation has been all but lost on the modern student.

Although it is easy to get lost in the subtle distinctions between the most predominant ancient Greek philosophical schools, it is important to keep in mind that as Christianity begins to take root in the West in the second and third centuries CE, Hellenistic philosophy – at least through the eyes of outsiders – was looked at as a single branch or thread of thought and studied as a whole. In other words, the scholars and students in Roman antiquity studied all of the Greek philosophic schools, and then went about applying their analysis and interpretation of philosophy in general (which again included ethics, physics and politics among other disciplines in antiquity) through whatever lens or school that they belonged to. As the ancient Mediterranean became under predominantly Roman influence in the first few centuries CE, the philosophical record starts to become much more Christian than Hellenic as the teachings of Christ start to spread and Christianity takes root in the Roman Empire. [The one notable exception to this is the Neo-Platonic developments in the third, fourth and fifth centuries by first Plotinus and Porphyry, and then Proclus some two centuries later, their work having significant influence on the development of early Christian theological development as well and perhaps at some level representing the pinnacle of Greek philosophy in and of itself.]

Having pointed out the similarities of the Greek philosophical schools and looking at philosophical development in general in this era as the evolution of philosophy proper into what we today refer to as "religion", or perhaps more accurately described as "theology", it is important to point out that there were of course distinctions in worldview, outlook and metaphysics in these competing

schools, and these differences were the source of much consternation and academic concern in this period of flourishing theological and philosophical development, a period which effectively came to an end with the beginning of the long standing and well documented history of the persecution of “pagan” traditions/religions by Christian orthodoxy. Many of the Greek philosophical schools, as well as some of the more esoteric teachings and interpretations surrounding the life of Christ – collectively referred to as Gnosticism - were the first to feel this wrath as Christian orthodoxy emerges toward the end of the fourth century CE.

Neo-Platonism as we know it today took shape in the 3rd and 4th centuries CE and synthesized Egyptian and Judaic theology and Cosmology into the metaphysics of Plato. Neo-Platonism in this form was espoused most notably by the early Christian theologian St Augustine (354 - 430 CE) who incorporated Judeo-Christian theology with Platonic thought in his now famous works *Confessions*, *City of God* and *On Christian Doctrine*. Gnosticism, which also flourished in the few centuries following the death of Jesus, and in many respects can be seen in contrast to some of the more dogmatic Christian beliefs of the time, borrows some of its theology and metaphysics from early Christianity but also from some of the more esoteric components of the Zoroastrianism (more on this later) along some of the Greco-Roman mystery religions of the day.

Scholasticism, a much later development which is reflected most notably in the works of Thomas Aquinas from the 13th century AD, dominated the monastic teachings of the Christian Church for the few centuries after the turn of the first millennium CE and not so much reflected a particular world view, or philosophy, but more so a mode of learning adopted from its Greek predecessors, focusing on the use of reason and dialogue, i.e. dialectic and inference, as the means to arriving at truth as well as leaning heavily on the Greek and Latin philosophical works for its curriculum. All of these developments had Greek philosophy as an undercurrent theme and reference point to at least some extent however, even in the most conservative of Christian circles.

The Dark Ages, as marked by the fall of the Roman Empire in the 5th century CE until the advent of the Renaissance in the late 14th century some one thousand years later, could be categorized to a certain extent as a step *backwards* with respect to the establishment of the supremacy of reason and metaphysics over theological and mythological beliefs, reflecting the reinforcement of the use of religion and theology to establish and protect the power of the elite and ruling class, which in this case was The Church and the ruling class whose authority rested on the Church.

Despite the powerful influence of Christianity in the first millennium CE and through the Middle Ages, the theo-philosophies of Plato and Aristotle and other Greek philosophers were not completely abandoned by Christian theologians. Of course Christian religion had a profound influence on the theology and metaphysics (if you could call it that) of the Western world in the

centuries following the death and crucifixion of Jesus, the metaphysics and Cosmology as laid out by Aristotle and Plato had some direct influence later Christian scholars and theologians, particularly Neo-Platonism, if for no other reason as providing the metaphysical and logical framework from within which the Holy Trinity and the divinity of Jesus and the reality of the One “true” God could be established.

In brief it was the re-establishment of religion as reflected in the dogmatic belief systems of the Church as the basis for authority (and even law), which *stifled* pure metaphysical and philosophical pursuits throughout the Dark Ages, ironically enough having exactly the very opposite effect that Jesus intended when he rebelled against the Jewish religious authorities of his day, namely the establishment of the divine as every individual’s right: “*Neither shall they say, Lo here! or, lo there! for, behold, the kingdom of God is within you.*” (Luke 17:21).

Select Bibliography

- Curd, Patricia, "Anaxagoras", *The Stanford Encyclopedia of Philosophy* (Fall 2011 Edition), Edward N. Zalta (ed.)
- David Konstan: "Epicurus" (*First published Mon Jan 10, 2005; substantive revision Wed Feb 18, 2009*)
- Palmer, John, "Parmenides", *The Stanford Encyclopedia of Philosophy* (Summer 2012 Edition), Edward N. Zalta (ed.)
- Nails, Debra, "Socrates", *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), Edward N. Zalta (ed.)
- C Kraut, Richard, "Plato", *The Stanford Encyclopedia of Philosophy* (Fall 2013 Edition), Edward N. Zalta (ed.)
- Partenie, Catalin, "Plato's Myths", *The Stanford Encyclopedia of Philosophy* (Fall 2011 Edition), Edward N. Zalta (ed.)
- Griswold, Charles L., "Plato on Rhetoric and Poetry", *The Stanford Encyclopedia of Philosophy* (Spring 2012 Edition), Edward N. Zalta (ed.)
- Cohen, S. Marc, "Aristotle's Metaphysics", *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), Edward N. Zalta (ed.)
- Kraut, Richard, "Aristotle's Ethics", *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), Edward N. Zalta (ed.),
- Carl Huffman: Pythagoreanism (*First published Wed Mar 29, 2006; substantive revision Mon Jun 14, 2010*)
- Berryman, Sylvia, "Ancient Atomism", *The Stanford Encyclopedia of Philosophy* (Winter 2011 Edition), Edward N. Zalta (ed.)
- Sylvia Berryman: "Democritus" (*First published Sun Aug 15, 2004; substantive revision Wed Aug 25, 2010*)
- Huffman, Carl, "Pythagoreanism", *The Stanford Encyclopedia of Philosophy* (Summer 2010 Edition), Edward N. Zalta (ed.)
- Baltzly, Dirk, "Stoicism", *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), Edward N. Zalta (ed.)
- *THE HISTORY OF HERODOTUS: Herodotus Translated into English by G. C. MACAULAY, M.A. IN TWO VOLUMES*
- *Timaeus, Plato and Benjamin Jowett*, The Echo Library 2006
- *The Snow Cone Diaries*, by Juan Valdez. Published by Authorhouse, 2014.
- *From Epicurus to Epictetus* by A.A. Long. Oxford University Press 2006
- *Plato's Cosmology: The Timaeus of Plato* by Francis M. Cornford. Hackett Publishing Company, 1997
- *Diogenes Laertius: Lives of Eminent Philosophers*. Translated by R.D. Hicks. Harvard University Press 1931
- *Plato: Six Great Dialogues*. Translated by Benjamin Jowett. Dover Publications Inc. 2007.
- *The Basic Works of Aristotle*: Edited by Richard McKeon. Modern Library 2001.

- *Cicero: On Academic Skepticism*. Translated by Charles Brittain. Hackett Publishing Company, 2006.
- *Stoic Views of Poetry* Author(s): Phillip DeLacy: *The American Journal of Philology*, Vol. 69, No. 3 (1948), pp. 241-271
- *The Origins of Stoic Cosmology* by David E. Hahm. Ohio State University Press 1977.
- *God & Cosmos in Stoicism* edited by Richard Salles. Oxford University Press, 2009.