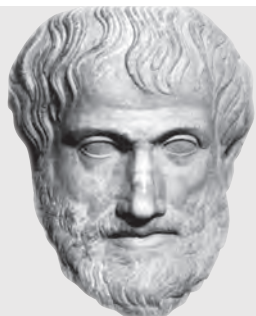






ARISTOTLE

Eustathios Bourodemos, professor of physical sciences and philosophy at the Massachusetts Institute of Technology and member of the Academy of Athens, is a very good friend of mine. We have common interests, and we frequently probe the depths of the world of ideas. In November 1999, Professor Bourodemos presented a lecture at the Academy of Athens on the works of Aristotle. Aristotle was born in Stageira, Chalcidice, in 384 BC, 15 years after Plato had founded his Academy. A truly epic creation of Aristotle's, professor Bourodemos emphasizes, is Logic. He was the first among philosophers to envision the borders separating psychology from Logic, that is, **"thought"** from the **"content"** of thought.



Aristotle

384 - 322 b.C.

was an ancient Greek philosopher, a student of Plato and teacher of Alexander the Great. Aristotle, along with Plato and Socrates, is generally considered one of the most influential of ancient Greek philosophers. The writings of Plato and Aristotle founded two of the most important schools of Ancient philosophy.

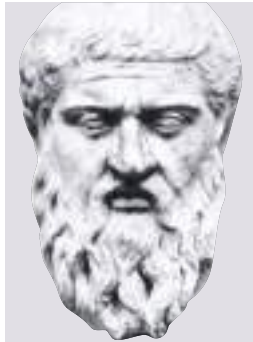
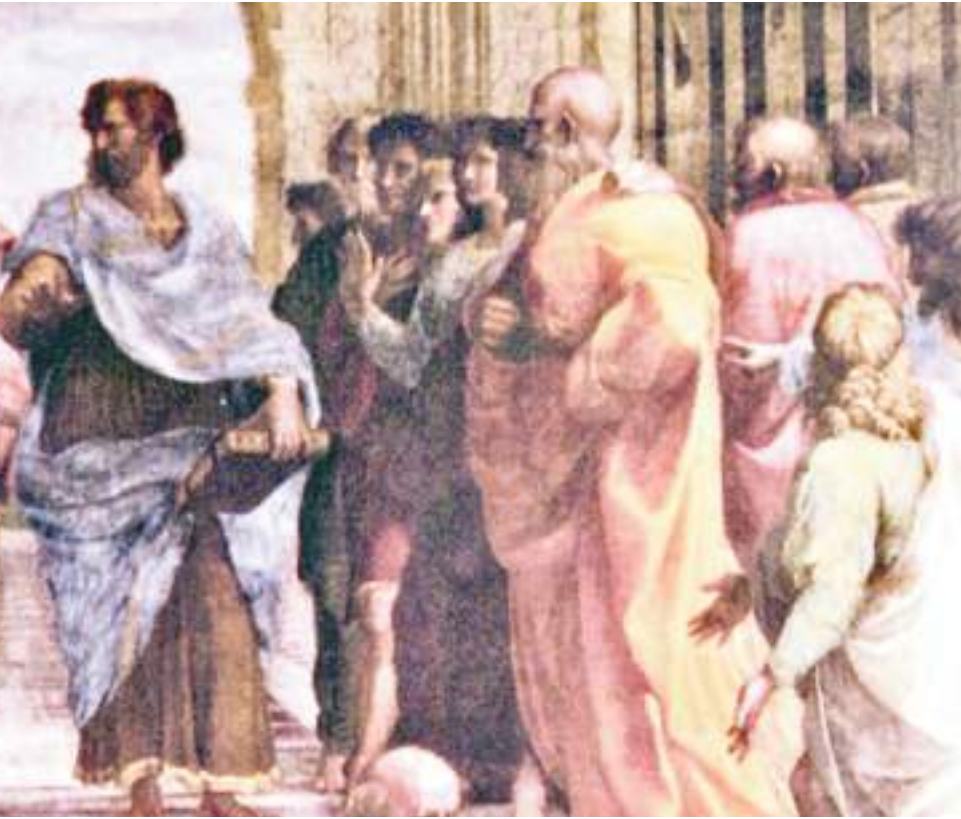
He set the stage for what would eventually develop into the empirical scientific method some two millennia later. Among the most important ones are Physics, Metaphysics (or Ontology), Nicomachean Ethics, Politics, De Anima (On the Soul) and Poetics. Aristotle wrote on aesthetics, ethics, government, metaphysics, politics, psychology, rhetoric and theology. He also dealt with education, foreign customs, literature and poetry. His combined works practically constitute an encyclopedia of Greek knowledge.



Aristotle taught his student, Alexander the Great, that everything in the world necessarily has its own essence, and man is called upon to comprehend it. The young Alexander learned from the mouth of the greatest teacher of all ages that for each person his substance is distinguishable from his qualities, and that in the entire kingdom of nature, the meaning of “**species**” is distinguishable from the meaning of “**genus**”, and that to say “this is the world” is different from saying “why is there a world?”

These distinctions made it possible for future scientists to investigate the Universe using a correct method.

A truly immortal creation of Aristotle in the domain of logic is his theory of “**sylogism**”, as well as his theory of “**scientific justification**”.



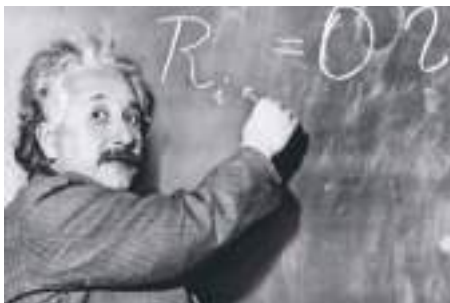
Plato

427 - 347 b.C.

Greek philosopher, a student of Socrates, writer of philosophical dialogues, and founder of the Academy in Athens where Aristotle studied. Plato lectured extensively at the Academy, and wrote on many philosophical issues, dealing especially in politics, ethics, metaphysics, and epistemology. The most important writings of Plato are his dialogues, although a handful of epigrams also survived, and some letters have come down to us under his name. The letters are all considered to probably be spurious, with the possible exception of the Seventh Letter. However, Plato was doubtless strongly influenced by Socrates' teachings, so many of the ideas presented, at least in his early works, were likely borrowings or adaptations.

For Aristotle, our everyday conclusions must not be confused with scientific proof. For science, the process of justification rests upon certain axioms, which, even though they cannot be proven, can still pertain to a dynamic attribute of the mind, “**intuitive knowledge**”, the knowledge of philosophers.

Man can understand, measure and prove something that concerns “part” of the Whole, because it is observable. However, as for the Whole, apart from the fact that it is unfathomable – and this because it is infinite, immeasurable and unobservable – man calculates, assumes, and reaches certain indirect and hypothetical conclusions, but is unable to prove them. At this point philosophy begins, disregarding the exterior interpretation of things and penetrating into their interior content.



Albert Einstein 1879 - 1955

was a theoretical physicist widely regarded as the most important scientist of the 20th century. He was the author of the special and general theory of relativity and made significant contributions to quantum mechanics, statistical mechanics, and cosmology. He was awarded the 1921 Nobel Prize for Physics for his explanation of the photoelectric effect in 1905 (his wonderful year) and for his services to Theoretical Physics.

After British solar eclipse expeditions in 1919 confirmed that light rays from distant stars were deflected by the gravity of the Sun by the amount he had predicted in his theory of relativity, Einstein became world-famous, an unusual achievement for a scientist. In his later years, his fame perhaps exceeded that of any other scientist in history. In popular culture, his name has become synonymous with great intelligence and genius. On March 30, 1921, Einstein went to New York to give a lecture on his new Theory of Relativity, the same year he was awarded the Nobel Prize. Though he is now most famous for his work on relativity, it was for his earlier work on the photoelectric effect that he was given the Prize, as his work on general relativity was still disputed. The Nobel committee decided that citing his less-contested theory in the Prize would gain more acceptance from the scientific community.

PROFESSOR CAMPIZIONES:

For Aristotle, God is the unmoved mover.

He is that which itself does not move, but moves the world.

I will give an example.

Let us imagine a child who walks in front of a shop and sees a chocolate in the window.

And the child begins to drool.

The chocolate is God forcing the child to move.

This example gives you the sense of what God is for Aristotle.

Aristotle seeks the essence of Being, only in specific and given empirical realities.

That essence cannot be attributed to a subject, but is contained within it.

Put succinctly, Being is not given as a predicate, but is a subject only and it is described from a personal standpoint.

Thus, for each man, God is personal.

Einstein devoted the last years of his life to research, to discover a unified theory of the Universe that would combine all the known physical theories. But he was unsuccessful... and it was totally natural for him not to succeed.

I wonder, can a theory which refers to a part of a whole be expanded by its merger with other theories, to constitute “**a unification of physical theories**”? In other words, can the human mind comprehend the universal rule that makes the “**Whole**”, that is to say “**the entire Universe**”, exist?

PROFESSOR CAMPIZIONES:

“I cannot understand how a perfect God created a cosmos which some day will be lost. Then He is not perfect. So I have questions. Ought I to believe that whatever science says is true? No! Science can answer some questions. But not all questions.”

Those scientists struggling in the chemical laboratories... on computers... in research centers and astronomical observatories, striving to penetrate matter, microscopically and macroscopically, what do they seek, I wonder?

To reach eventually those final conclusions which interpret the mode of existence and the functions of the mechanism of all things? And why, I wonder, does the scientific community maintain today that this is what it seeks?

There is no rule of the **“function of the Whole”**. There is no comprehension of the manner and the mechanism of **“existence of the Whole”**, precisely because the Whole is infinite. Science may participate in the challenge of interpreting laws, and it may gather evidence interpreting physical manifestations concerning nature and of man.

But man’s comprehension of the equation, which would interpret the totality of the laws that make **“the Universe exist”** is considered beyond his capabilities.

Otherwise, he would stand up against God.

Those scientists struggling in the chemical laboratories... on computers... in research centers and astronomical observatories, striving to penetrate matter, microscopically and macroscopically, what do they seek, I wonder?

