

Lecture 20: Greek Philosophy

I. INTRODUCTION

A. Introduction

- Ancient Greece
 - Refers to the period of Greek history lasting from ca. 1100 BC (Dorian invasion), to 146 BC and the Roman conquest of Greece (Battle of Corinth).
 - The seminal culture which provided the foundation of Western civilization.
 - Greek culture had a powerful influence on the Roman Empire, which carried a version of it to many parts of Europe.
 - The civilization of the ancient Greeks has been immensely influential on language, politics, educational systems, philosophy, science, and art.

I. INTRODUCTION

A. Introduction

- Ancient Greek Philosophy
 - focuses on the role of reason and inquiry.
 - Many philosophers today concede that Greek philosophy has shaped the entire Western thought since its inception.
 - Clear unbroken lines of influence lead from ancient Greek and Hellenistic philosophers, to medieval Muslim philosophers, to the European Renaissance and Enlightenment.
 - Early Greek philosophy, in turn, was influenced by the older wisdom literature and mythological cosmogonies of the Near East.
 - Nonetheless, philosophy is a Greek creation.

II. PRESOCRATIC PHILOSOPHY

A. Introduction

- The Pre-Socratic philosophers were active before Socrates or contemporaneously, but expounding knowledge developed earlier.
 - It is sometimes difficult to determine the actual line of argument some pre-Socratics used in supporting their particular views.
 - While most of them produced significant texts, none of the texts have survived in complete form.
 - All we have are quotations by later philosophers and historians, and the occasional textual fragment.
 - Pre-Socratic philosophers rejected mythological in favor of more rational explanations.

II. PRESOCRATIC PHILOSOPHY

A. Introduction

- The Pre-Socratics concerned themselves with
 - Philosophy (love of knowledge and wisdom)
 - Began with natural explanations (logos) replacing supernatural explanations (mythos).
 - Cosmology
 - The explanation of origin, structure, and processes governing the universe (cosmos).
 - The universe was orderly and thus, in principle, explainable.
- They began a process of asking questions, defining problems and identifying paradoxes.

II. PRESOCRATIC PHILOSOPHY

A. Introduction

- The Pre-Socratics
 - The questions some Pre-Socratics asked:
 - From where does everything come?
 - From what is everything created?
 - How do we explain the plurality of things found in nature?
 - How might we describe nature mathematically?
 - Others concentrated on defining problems and paradoxes that the basis for later mathematical, scientific and philosophic study.
 - Later philosophers rejected the answers they provided, but continued to place importance on their questions.

II. PRESOCRATIC PHILOSOPHY

B. Milesian school

- Milesian school
 - Was a school of thought founded in the 6th C. BC.
 - The ideas associated with it are exemplified by philosophers from the Ionian town of Miletus, on the Aegean coast of Anatolia
 - These philosophers introduced new opinions contrary to the prevailing viewpoint on how the world was organized.
 - Natural phenomena were explained solely by the will of anthropomorphized gods.
 - They presented a view of nature in terms of methodologically observable entities, and as such was one of the first truly scientific philosophies.

II. PRESOCRATIC PHILOSOPHY

B. Milesian school

- Thales (624-546 BCE)
 - First philosopher
 - Emphasized natural explanations while minimizing supernatural ones.
 - The universe consists of natural substances and is governed by natural principles.
 - Universe is knowable and understandable.
 - Thales searched for the one single substance from which all others were derived- the *physis* or primary element.
 - The *physis* was water.
 - He ushered in the critical tradition – the criticism and questioning of others’ teachings and views.

II. PRESOCRATIC PHILOSOPHY

B. Milesian school

- Anaximander (610-546 BCE)
 - *Physis* was a substance that had the capability of becoming anything
 - Called the “boundless” or the “indefinite.”
- Anaximenes (585 -525 BCE)
 - Probably a younger contemporary of Anaximander, whose pupil or friend he is said to have been.^[1]
 - He held the *Physis* to be air (translates to mist)
 - Everything is air at different degrees of density, and under the influence of heat, which expands, and of cold, which contracts its volume, it gives rise to the several phases of existence.

II. PRESOCRATIC PHILOSOPHY

C. Heraclitus

- Heraclitus (535-475 BCE)
 - Nature is in a constant state of flux or change.
 - *Physis* is fire because it transforms all things into something else.
 - World is always “becoming” – never “is”
 - All things exist between polar opposites – must have opposites.
 - Epistemological question
 - How can one know something if it is always changing?
 - The veracity of the senses began to be questioned.
 - Rationalists believe that there are knowable things in the universe, while empiricists believe that everything is constantly changing and thus incapable of being known.

II. PRESOCRATIC PHILOSOPHY

D. Eleatics

- The Eleatics
 - Were a school of philosophers at Elea (a Greek colony in Campania, Italy)
 - Founded in the early fifth century BCE by Parmenides, with Zeno of Elea his student.
- Parmenides (510-440 BCE)
 - All things are constant; change is an illusion
 - One reality: finite, uniform, motionless, and fixed
 - Knowledge comes only through reason (rationalism)
 - Sensory experience is not real, not to be trusted

II. PRESOCRATIC PHILOSOPHY

D. Eleatics

- Zeno (490-430 BCE)
 - Disciple of Parmenides
 - Used logical arguments (paradoxes) to show that motion was an illusion to support Parmenides.
 - The paradox of Achilles and the Tortoise
 - Achilles is in a footrace with the tortoise. Achilles allows the tortoise a head start of 100 feet.
 - If we suppose that each racer starts running at some constant speed (one very fast and one very slow), then after some finite time, Achilles will have run 100 feet, bringing him to the tortoise's starting point.

II. PRESOCRATIC PHILOSOPHY

D. Eleatics

- The paradox of Achilles and the Tortoise
 - During this time, the tortoise has run a much shorter distance, say, 10 feet.
 - It will then take Achilles some further time to run that distance, by which time the tortoise will have advanced farther; and then more time still to reach this third point, while the tortoise moves ahead.
 - Thus, whenever Achilles reaches somewhere the tortoise has been, he still has farther to go.
 - Therefore, because there are an infinite number of points Achilles must reach where the tortoise has already been, he can never overtake the tortoise.
 - Simple experience tells us that Achilles will be able to overtake the tortoise, which is why this is a paradox.

II. PRESOCRATIC PHILOSOPHY

F. Pythagorean School

- Pythagorean School
 - Pythagoreans, who were much influenced by mathematics and probably a very inspirational source for Plato and Platonism.
 - Pythagoras (582-496 BCE) and the Pythagoreans.
 - First to use the term philosopher and call himself a philosopher
 - Explanation of the universe is found in numbers and numerical relationships
 - Applied mathematical principles to human experience
 - Numbers and numerical relationships were real and influenced the empirical world

II. PRESOCRATIC PHILOSOPHY

F. Pythagorean School

- Pythagoras and the Pythagoreans (continued)
 - Illness was thought to result from a disruption of the body's equilibrium
 - Nothing is perfect in the empirical world; perfection is in abstract mathematical world and known only by reason
 - The Pythagoreans proposed a dualistic universe
 - One part abstract, permanent, and knowable (similar to Parmenides)
 - One part empirical, changing, and known through the senses, but senses cannot provide knowledge (similar to Heraclitus)

II. PRESOCRATIC PHILOSOPHY

F. Pythagorean School

- Pythagoras and the Pythagoreans (continued)
 - The Pythagoreans lived a strict, disciplined life.
 - They crusaded against vice, lawlessness, and bodily excess and believed that experiences in the flesh (senses) were inferior to experiences in the mind
 - Affected Plato's views and impacted early Christian thought.

II. PRESOCRATIC PHILOSOPHY

G. Pluralist School

- Pluralist School
 - They attempted to reconcile Parmenides' rejection of change with the apparently changing world of sense experience.
- Empedocles (490-430 BCE)
 - Disciple of Pythagoras
 - Not just one physis but four elements that make up the world – earth, fire, air, and water
 - Postulated love and strife as two universal powers
 - Causal powers and the elements operate together to produce unending cosmic cycle of recurring phases.

II. PRESOCRATIC PHILOSOPHY

G. Pluralist School

- Empedocles
 - He proposed a theory of evolution.
 - Proposed an early theory of perception
 - Each of the four elements are found in the blood
 - Objects in the world throw off tiny copies of themselves called “emanations” or eidola (plural of eidolon), which enter the blood through pores in the body, the eidola combine with elements like themselves.
 - The fusion of external and internal elements results in perception, which takes place in the heart

II. PRESOCRATIC PHILOSOPHY

G. Pluralist School

- Anaxagoras (500-428 BCE)
 - Proposed an infinite number of elements called “seeds” from which all things were created
 - Seeds do not exist in isolation
 - every element contains all other elements.
 - The characteristics of something is determined by the proportion of the elements present.
 - One exception – the mind is pure, contains no other elements
 - Mind is part of all living things, but not a part of non-living things
 - Anaxagoras was an early vitalist.

II. PRESOCRATIC PHILOSOPHY

H. Atomist School

- Atomist School
 - They taught that the hidden substance in all physical objects consists of different arrangements of 1) atoms and 2) void.
 - Both atoms and the void were never created, and they will be never ending.
- Democritus (460-370 BCE)
 - First completely naturalistic description of the universe
 - All things were made of tiny particles called atoms
 - Characteristics of things are determined by shape, size, number, location, and arrangement of atoms.

II. PRESOCRATIC PHILOSOPHY

H. Atomist School

- Democritus (460-370 BCE)
 - All things and events, animate, inanimate, and cognitive can be reduced to atoms and atomic activity.
 - Atom's behavior is lawful (determinism)
 - All things explained by atomic activity (elementism)
 - Events and phenomena explained in terms of another, more elemental level (reductionism).
 - Described sensation and perception in terms of atoms emanating from the surface of objects and entering the body through the sensory systems and then transmitted to the brain.

II. PRESOCRATIC PHILOSOPHY

I. The Sophists

- Sophists
 - In the second half of the 5th C BCE, particularly at Athens, "sophist" came to denote a class of itinerant intellectuals who:
 - taught courses in "excellence" or "virtue"
 - speculated about the nature of language and culture
 - employed rhetoric to achieve their purposes, generally to persuade or convince others.
 - They held that truth is relative – no single truth exists
 - But claimed that they could find the answers to all questions.

II. PRESOCRATIC PHILOSOPHY

I. The Sophists

- Protagoras (490-420 BCE)
 - Truth depends on the perceiver.
 - Perception varies from person to person because each perceiver has different experiences.
 - Truth is partially determined by culture
 - To understand why a person believes as a person does, one must understand the person.
 - Agnostic toward the Greek gods
 - Philosophy of relativity of truth is still present today in postmodernism.

II. PRESOCRATIC PHILOSOPHY

I. The Sophists

- Gorgias (487-376 BCE)
 - Gorgias took a more extreme position than Protagoras – all things are equally false
 - There is no objective basis of truth – nihilism – one can only be aware of one's own experiences and mental states – solipsism.
 - He came to three conclusions:
 - Nothing exists
 - If it did exist, it could not be comprehended
 - If it could be comprehended, it could not be
 - Spoken words had power but they were essentially deceitful.

II. PRESOCRATIC PHILOSOPHY

I. The Sophists

- Xenophanes (570-470 BCE)
 - Attacked veracity of religion before the Sophists
 - Xenophanes stated that religion is a human invention. His evidence was:
 - Olympian gods act suspiciously like humans
 - Gods of different peoples look like the people themselves
 - Humans create religion – moral codes come from man
 - He was not an atheist
 - Postulated a god that was unlike any other described during that time.

II. PRESOCRATIC PHILOSOPHY

J. Greek Medicine

- Greek Medicine
 - Early medicine included temple medicine, healing rituals practiced by priests in secret and guarded, accompanied by much ritual and ceremony by patients.
- Alcmaeon: Naturalized medicine
 - Alcmaeon proposed a balance of physical qualities needed for health
 - The physician's job was to help the patient regain equilibrium (a contemporary concept).
 - Through research, concluded that sensation, perception, memory, thinking, and understanding occurred in the brain based on own dissection work.

II. PRESOCRATIC PHILOSOPHY

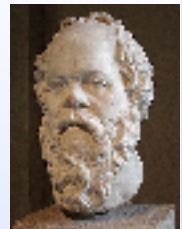
J. Greek Medicine

- Hippocrates: Father of Medicine
 - Humans are made of four humors, which need to stay in balance.
 - ALL disorders are caused by natural factors such as inherited susceptibility and organic injury, and by imbalances in bodily fluids.
 - The body has the ability to heal itself – physician's job was to facilitate natural healing – treat the whole patient, not just the disease
 - The Hippocratic oath, written by the Pythagoreans?
- Galen: Hypothesized Personality
 - Personality theory created by associating the four humors of Hippocrates with four temperaments

III. SOCRATES, PLATO and ARISTOTLE

A. Socrates (469 BC–399 BC)

- Socrates (469 BC–399 BC)
 - Credited as one of the founders of Western philosophy.
 - Known only through the classical accounts of his students.
 - Plato's dialogues are the most comprehensive accounts of Socrates to survive from antiquity.
 - Socrates who also lends his name to the concepts of Socratic irony and the Socratic method.



III. SOCRATES, PLATO and ARISTOTLE

A. Socrates

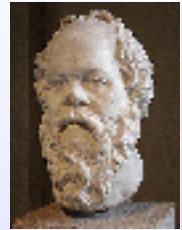
- Socrates
 - He agreed with sophists.
 - Personal experience is important, but denied that no truth exists beyond personal opinion.
 - Method of inductive definition
 - Examine instances of a concept
 - Ask the question – what is it that all instances have in common?
 - Find the essence of the instances of the concept.
 - Seek to find general concepts by examining isolated instances.



III. SOCRATES, PLATO and ARISTOTLE

A. Socrates

- Socrates
 - The essence was a universally accepted definition of a concept.
 - Understanding essences constituted knowledge and goal of life was to gain knowledge.
 - Socrates was sentenced to death at the age of 70 years for corrupting the youth of Athens



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

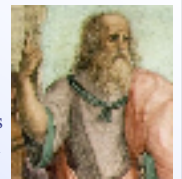
- Plato (428 – 348 BCE)
 - He was a classical Greek philosopher and founder of the Academy in Athens, the first institution of higher learning in the western world.
 - Along with his mentor, Socrates, and his student, Aristotle, Plato helped to lay the foundations of Western philosophy.
 - Plato was originally a student of Socrates, and was as influenced by his thinking and unjust death.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

- Theory of forms
 - Everything in the empirical world is an inferior manifestation of the pure form, which exists in the abstract.
 - Experience through our senses comes from interaction of the pure form and matter of the world
 - Result is an experience less than perfect.
 - True knowledge can be attained only through reason; rational thought regarding the forms.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

- The analogy of the divided line
 - Description of Plato's view of acquisition of true knowledge.
 - The analogy divides the world and our states of mind into points along a divided line.
 - An attempt to gain knowledge through sensory experience is doomed to ignorance or opinion.
 - Imagining is lowest form of understanding
 - Direct experience with objects is slightly better, but still just beliefs or opinions.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

- The analogy of the divided line
 - Contemplation of mathematical relationships is better than imagination and direct experience.
 - Highest form of thinking involves embracing the forms.
 - True knowledge and intelligence comes only from understanding the abstract forms.
 - The allegory of the cave
 - Demonstrates how difficult it is to deliver humans from ignorance



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

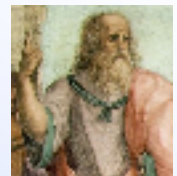
- The reminiscence theory of knowledge
 - How do we know the forms if we cannot know them through sensory experiences?
 - Prior to coming into the body, the soul dwelt in pure, complete knowledge.
 - Knowledge is innate and attained only through introspection
 - Thus, all true knowledge comes only from remembering the experiences the soul had prior to entering the body.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

- The reminiscence theory of knowledge
 - The reminiscence theory of knowledge made Plato a rationalist who stressed mental operations to gain knowledge already in the soul.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

- The nature of the soul
 - Soul comprised of three parts (tripartite)
 - Rational component
 - immortal, existed with the forms.
 - Courageous (emotional or spirited) component
 - mortal emotions such as fear, rage, and love
 - Appetite component
 - mortal needs such as hunger, thirst, and sexual behavior that must be satisfied



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

- The nature of the soul
 - To obtain knowledge, one must suppress bodily needs and concentrate on rational pursuits.
 - Job of rational component is to postpone and inhibit immediate gratification when it is in the best long-term benefit of the person.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

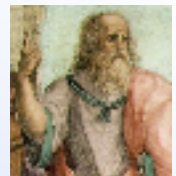
- *The Republic*
 - Plato described a utopian society with three types of people performing specific functions:
 - appetitive individuals – workers and slaves.
 - courageous individuals – soldiers.
 - rational individuals – philosopher-kings.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

- Plato felt that all was predetermined.
 - A complete nativist, people are destined to be a slave, soldier, or philosopher-king.
 - While asleep, the baser appetites in people are fulfilled no matter how rational they are while awake
 - Plato is referring to dreams although he does not mention them specifically.



III. SOCRATES, PLATO and ARISTOTLE

B. Plato

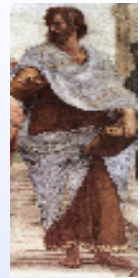
- Plato's legacy
 - Because of his disdain for empirical observation and sensory experience as means of gaining knowledge, he actually inhibited progress in science.
 - Dualism in humans



III. SOCRATES, PLATO and ARISTOTLE

C. Aristotle

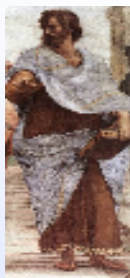
- Aristotle (384 BC – 322 BC)
 - A student of Plato and teacher of Alexander the Great.
 - He was the first to create a comprehensive system of Western philosophy, encompassing morality and aesthetics, logic and science, politics and metaphysics.
 - Aristotle wrote many elegant treatises and dialogues, but only about one-third of the original works have survived.



III. SOCRATES, PLATO and ARISTOTLE

C. Aristotle

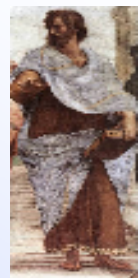
- Aristotle's Legacy
 - Physical sciences
 - profoundly shaped medieval scholarship, and its influence extended well into the Renaissance, although ultimately replaced by Newtonian Physics.
 - Biological sciences,
 - Some observations were confirmed to be accurate only in the 19 C.
 - Logic
 - His work was incorporated into modern formal logic.



III. SOCRATES, PLATO and ARISTOTLE

C. Aristotle

- Aristotle's Legacy
 - Metaphysics
 - He had a profound influence on philosophical and theological thinking in the Islamic and Jewish traditions in the Middle Ages.
 - It continues to influence Christian theology, especially Eastern Orthodox theology, and the scholastic tradition of the Roman Catholic Church.
 - All aspects of Aristotle's views continue to be the object of active academic study today.



III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

Aristotle and Plato contrasted.

- Plato:
 - Essences (truths) in the forms that exist independent of nature, known only by using introspection (rationalism)
- Aristotle
 - Essences could be known only by studying nature through individual observation of phenomena (empiricism).
- Aristotle a rationalist and empiricist.
 - Mind employed to gain knowledge (rationalist), object of the rational thought was information from sensory experience (empiricism).



III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

Aristotle's Lyceum

- Located just outside the walls of ancient Athens
 - Before starting the Lyceum, Aristotle had studied for 19 years (366-347 BC) at Plato's Academy.
- Head of his school until 323 BC
 - Athenians turned against the Alexandrian Empire upon Alexander the Great's death (his student 343- 335 BCE)
 - He left Athens fearing for his life, saying famously that "Athens must not be allowed to sin twice against philosophy."
 - The school was sacked by Romans general
 - The location of the complex was lost for centuries, until it was rediscovered in 1996, during excavations which revealed foundations and few other remains.

III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

Aristotle's four causes

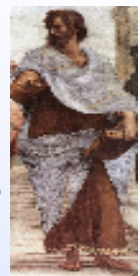
- Aristotle's four causes, to understand object or phenomenon, one must know causes.
 - Material cause
 - matter of which it is made
 - Formal cause
 - form or pattern of the object – what is it?
 - Efficient cause
 - force that transforms the matter – who made it?
 - Final cause
 - purpose – why it exists.



III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

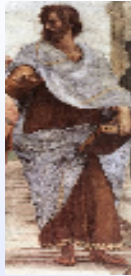
Aristotle's causation, teleology, and entelechy

- Everything has a cause and purpose
 - Teleology, meaning that everything has a function (entelechy) built into it.
 - Entelechy keeps an object moving and developing in its prescribed direction to full potential
 - Scala naturae* is the idea that nature is arranged in a hierarchy ranging from neutral matter to the unmoved mover, which is the cause of everything in nature



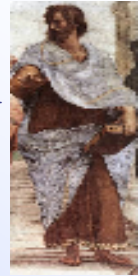
III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Hierarchy of souls: What gives life:
 - Vegetative (nutritive) soul
 - Provides growth, assimilation of food, and reproduction
 - Possessed by plants
 - Sensitive soul
 - Functions of vegetative soul plus the ability to sense and respond to the environment, experience pleasure and pain, and use memory.
 - Possessed by animals.



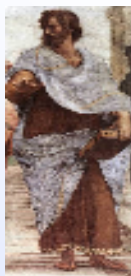
III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Hierarchy of souls:
 - Rational soul
 - Vegetative and sensitive souls plus ability for thinking and rational thought.
 - Possessed by humans.
 - Sensation
 - From the five senses
 - Perception was explained by motion of objects that stimulate a particular sensory system.
 - We can trust our senses to yield an accurate representation of the real world environment.



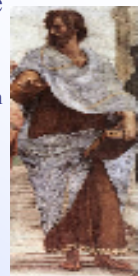
III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Common sense, passive and active reason.
 - Sensory information is only first step in gaining knowledge – necessary but not sufficient element in obtaining knowledge.
 - Information from multiple sensory systems must be combined for effective interactions with the environment.
 - Common sense
 - Coordinates and synthesizes information from all of the senses for more meaningful and effective experience.



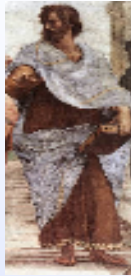
III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Common sense, passive and active reason.
 - Passive reason
 - Uses synthesized experience to function in everyday life
 - Active reason
 - Uses synthesized experience to abstract principles and essences
 - Highest form of thinking
 - Active reason provides humans with their entelechy
 - Purpose is to engage in active reason
 - Source of greatest pleasure.



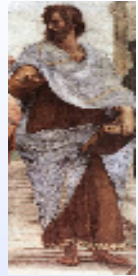
III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Unmoved Mover
 - Gave everything in nature its purpose (entelechy)
 - Caused everything in nature, but was not caused by anything itself
 - It set nature in motion and little else
 - It was a logical necessity, not a god



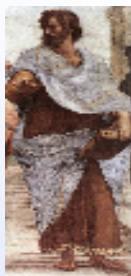
III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Memory and recall
 - Remembering
 - Spontaneous recollection of a previous experience
 - Recall
 - An actual mental search for a previous experience
- Practice of recall affected by laws of association
 - Law of contiguity
 - Associate things that occurred close in time and/or in same situations



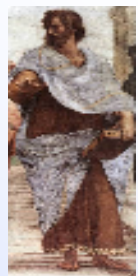
III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Law of similarity
 - Similar things are associated
- Law of contrast
 - Opposite things are associated
- Law of frequency
 - More often events occur together – stronger the association
- Associationism
 - Belief that associations can be used to explain origins of ideas, memory, or how complex ideas are formed from simple ones
 - Laws of association are basis for most theories of learning and association.



III. SOCRATES, PLATO and ARISTOTLE C. Aristotle

- Imagination and dreaming
 - Imagination is the lingering effects of sensory experience.
 - Dreams are images from past experiences which are stimulated by events inside and outside the body
- Motivation and happiness
 - Happiness is doing what is natural
 - Fulfills one's purpose
 - Purpose for humans is to think rationally
 - Humans are motivated by appetites but can use rational powers to inhibit them.



III. SOCRATES, PLATO and ARISTOTLE

C. Aristotle

- Motivation and happiness
 - Conflicts arise between immediate satisfaction and biological drives and more remote rational goals.
 - Like most Greeks, Aristotle held self-control and moderation as a high ideal.
 - The best life lived according to **golden mean** (between excess and deficiency).
- Emotions and selective perception
 - Emotions function to amplify any existing tendency (behavior).
 - Influences perception to be selective.



III. SOCRATES, PLATO and ARISTOTLE

D. Greek Philosophy

- Greek Philosophical Tradition
 - The Greek cosmologists broke loose from the accepted traditions and speculated; they also engaged in critical discussion.
 - After Aristotle's death, philosophers either relied on teachings of past authorities, particularly Aristotle, or turned attention from descriptions of the universe to models of human conduct.
 - The critical, questioning tradition of the Greeks was not present until revived in the Renaissance.

III. SOCRATES, PLATO and ARISTOTLE

D. Greek Philosophy

