



The Highest Level of Cerebral Activity II



Three States of Cognition

Philosophy: Mind behind Mind



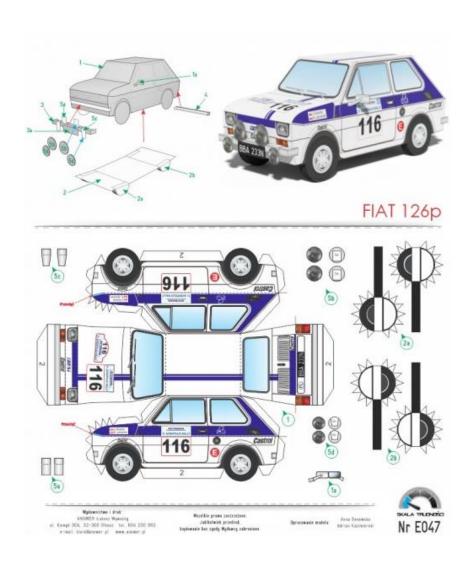
Psychology: Mind



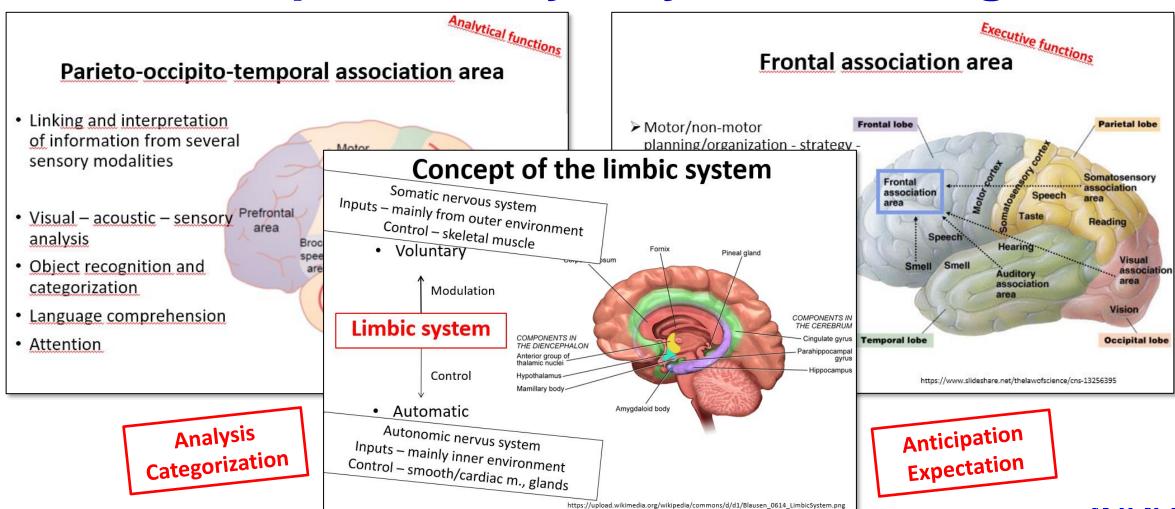


PS Deb

MUNI MED



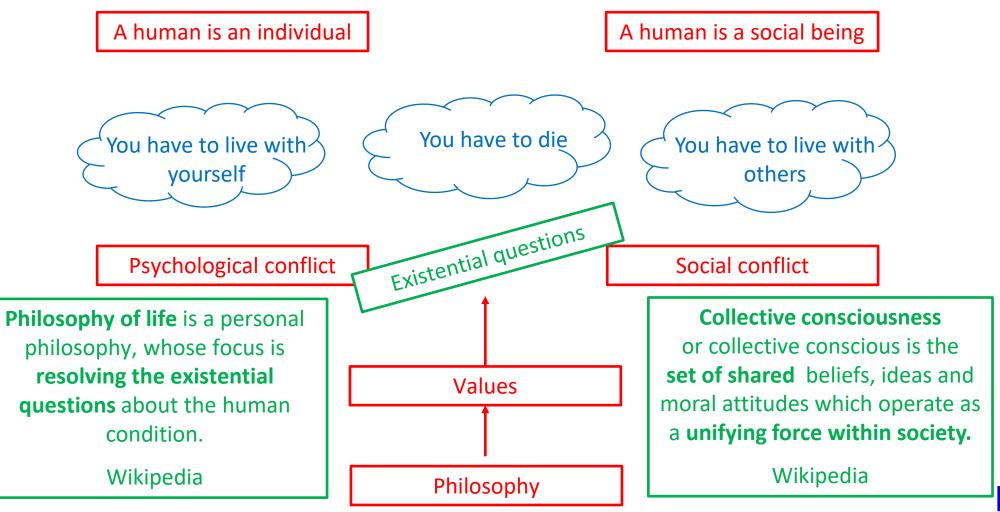
Complementary ways of thinking



Drive



Why?



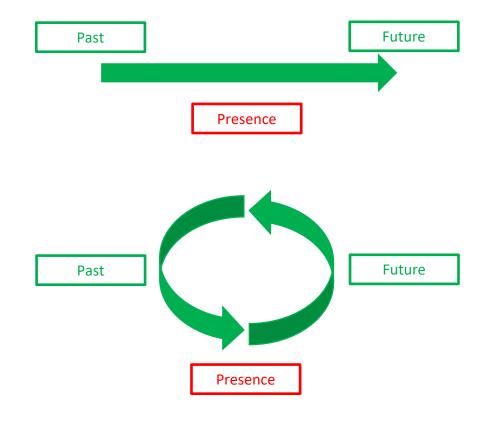
Mythology and philosophy

- All the nations have a mythology
- Language and mythology (and later culture and philosophy) define the nations
 - Communication
 - Values
- Explanation of complex issues
 - Pseudorational/iractional
 - Protscience
 - Symbolism education



Mythology and philosophy

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 - Communication
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 - Protscience
 - Symbolism education
- Intuitive understanding of cyclic time
 (The cyclic time model was established much later by followers of Pythagoras)
- Myth Philosophy Science (August Comte)





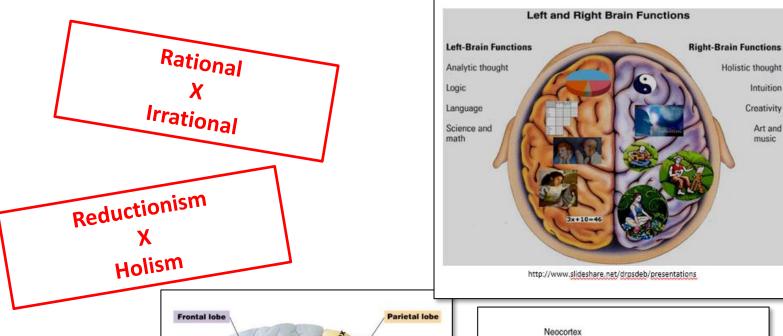
Philosophy, science and thinking

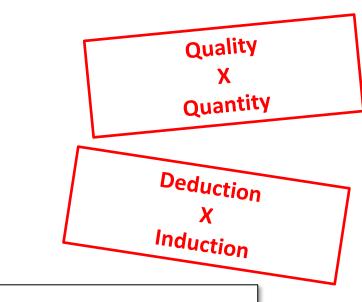
Holistic thought

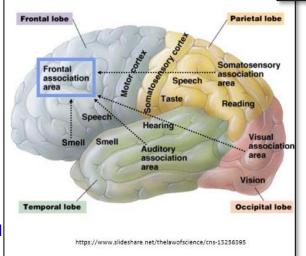
Intuition

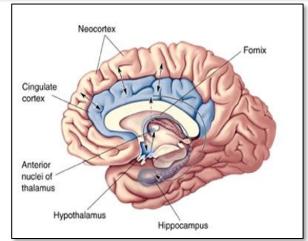
Creativity

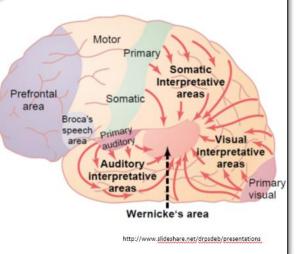
Art and music





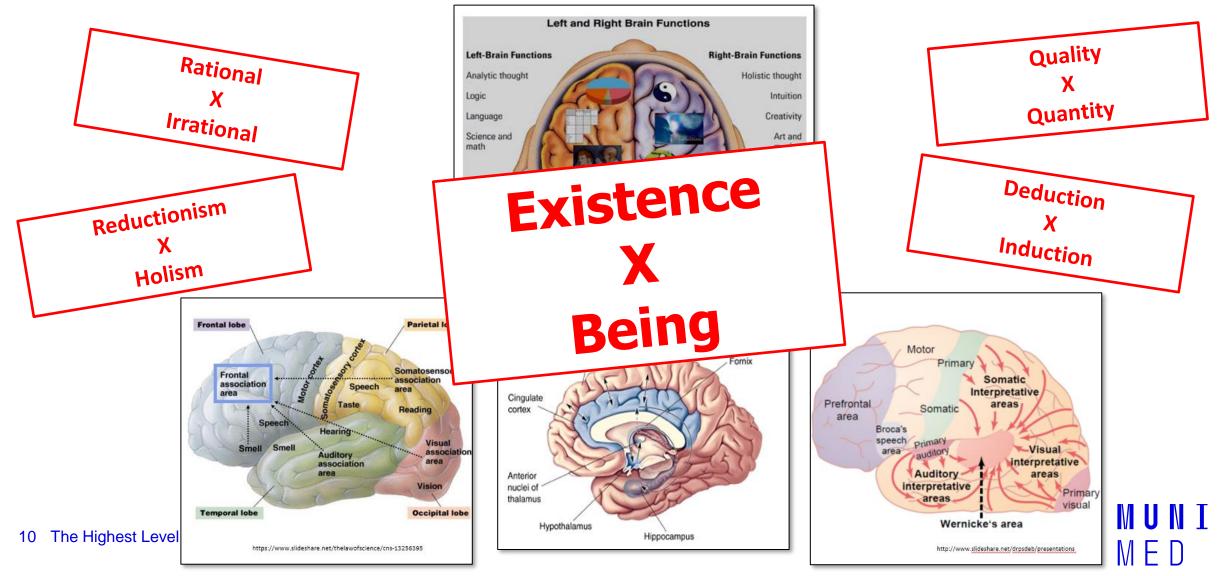








Philosophy, science and thinking

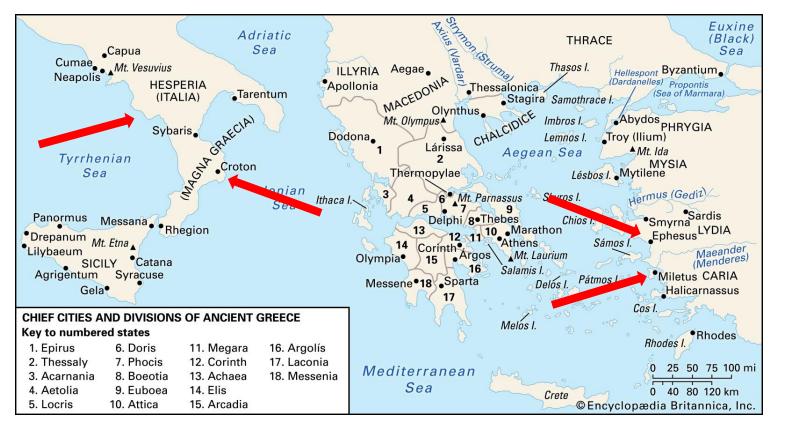


Antique philosophy

- Cosmology
 - Searching for the natural origins/source of things
 - Pre-Socratic philosophy
- Anthropologic philosophy
 - Focused on humans and society
 - Sophists, Socrates
- Systematic philosophy
 - Synthesis of previous philosophy to one system
 - Plato, Aristoteles
- Hellenistic philosophy
 - Focused on problematic of meaningful life
 - Stoicism, epicureism, skepticism...





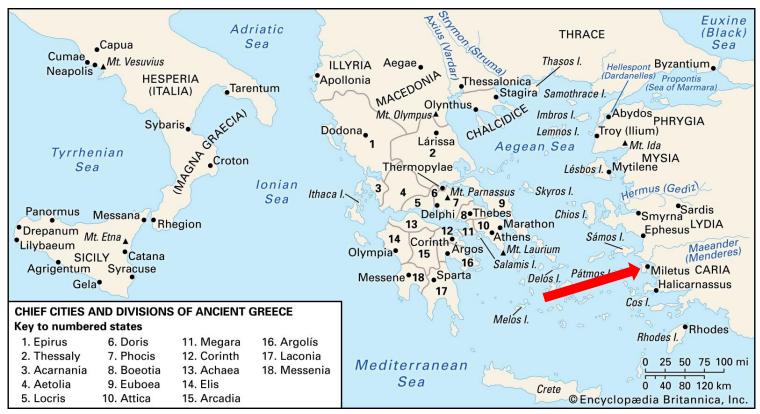


https://www.britannica.com/media/full/topic/244231/54571



Milesian "school"

Searching of the natural source of things (arche)



https://www.britannica.com/media/full/topic/244231/54571



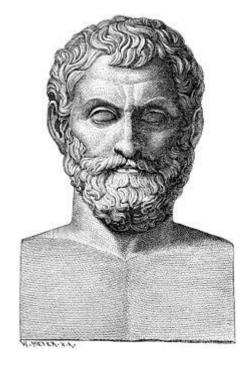
Thales of Miletus

(c. 624 - 548 BC)

- ➤ The first Greek philosopher, politician, geometrist, astronomist
- ✓ "everything has a same origin, but a different form"
- ✓ Source water (possibly inspired by the sea)



https://www.ephotozine.com/article/how-to-photograph-stormy-seas-15558



https://en.wikipedia.org/wiki/Thales_of_Miletus



Anaximander

(c. 610 - 546 BC)

- ➤ Angular distance measurement
- Gnomon (sundial)
- ➤ Globe of sky
- ➤ Map of the world
- ✓ Origin Apeiron (infinite, limitless)
- ✓ The things are arisen from Apeiron by separation and then disappear - evolution



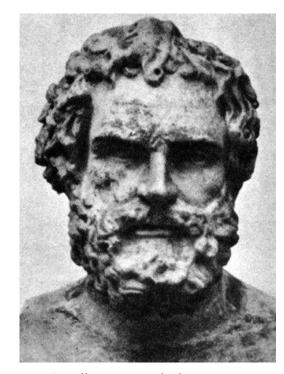
https://www.aldebaran.cz/famous/people/Ana ximandros.php



Anaximenes

(c. 585-528 BC)

- ✓ Origin (infinite) air (apeiros aer)
- ✓ Thickening of air water, stone
- ✓ Dilution of air fire



https://cz.pinterest.com/pin/56766472802249481 3/?lp=true



Milesian "school"

- Searching of origin/source (arche)
- Rational way of thinking
 - Principle of follow Greek philosophy and modern science
- Reductionism
 - ✓ Simplification one origin/source (monism)
 - ✓ Principle of modern science
 - ✓ An opposite approach to reductionism is holism it is not possible to cover any problems in a holistic way only by rational thinking, it is necessary to use irrational way of thinking too (for example intuition)





Pythagorean school

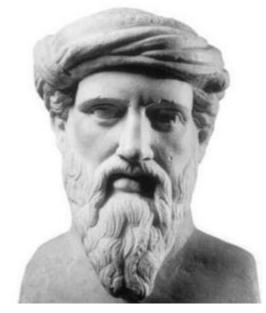
- The first real school of philosophy
- Searching for mathematical rules of logos/harmony





(c. 570-495 BC)

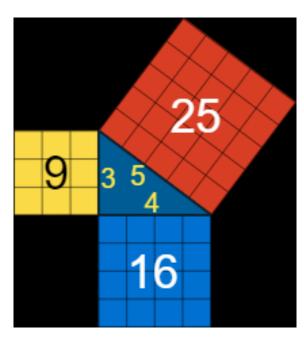
- ➤ Founder of the Pythagorean school
- > Philosophy had a mystical character and the school might resemble sect
- ✓ Introduced "modern" meaning many terms like theoria, logos, cosmos etc.



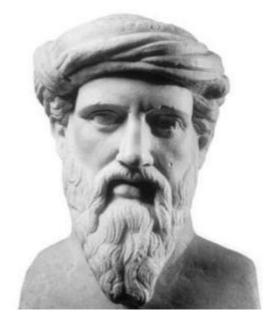
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(c. 570-495 BC)



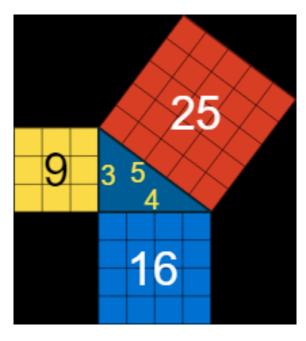
https://www.mathsisfun.com/pythagoras.html



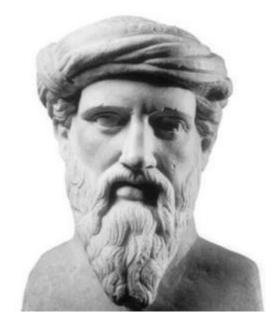
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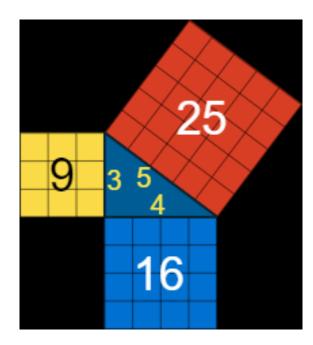


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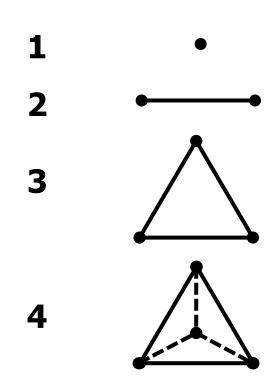
Philosophical meaning of Pyythagora's Theorem

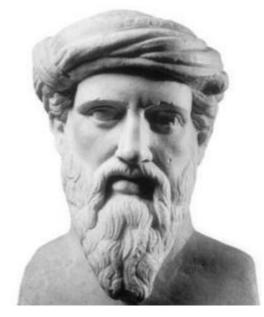
When you reach higher level, you can find relationships which are not visible on a lower level.

(c. 570-495 BC)



https://www.mathsisfun.com/pythagoras.html



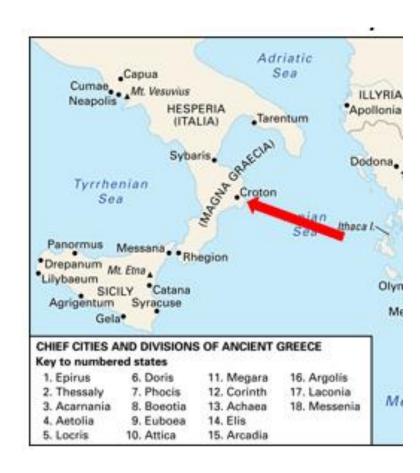


https://www.goodreads.com/phot o/author/203707.Pythagoras

Philosophical meaning of Pyythagora's Theorem

When you reach higher level, you can find relationships which are not visible on a lower level.

- ✓ Abstract way of thinking
- √ Holistic approach





Heraclitus of Ephesus

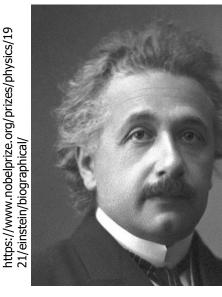
(c. 540 - 480 BC)

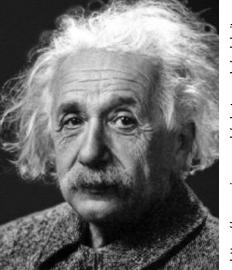
- ➤ Dynamic approach
 - ➤ Ever-present change as fundamental essence
 - √ There are no static things
 - ➤ Origin fire
 - ✓ Fire is dynamic and changes everything
 - ➤ Dynamism is organized by logos
- Dynamism may be also considered as a fight/antagonism





http://www.xn--ideayaynevi-5zb.com/adlar/herakleitos.html



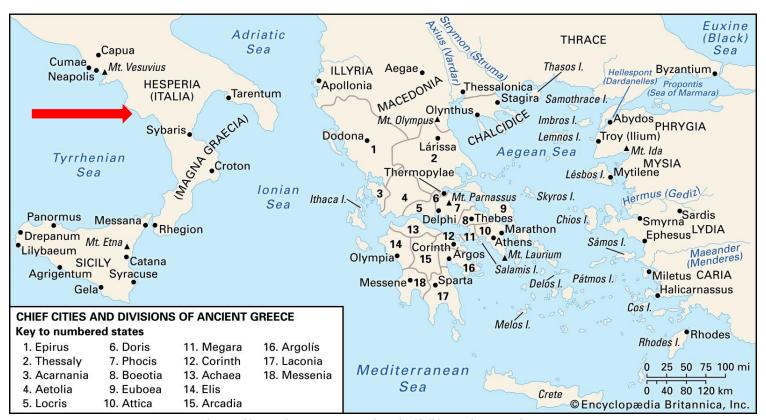


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Eleatics

- In opposition to Heraclitus
- Emphasized the role of logical thinking

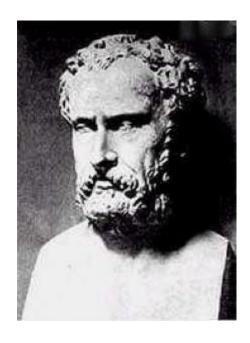




Xenophanes

(c. 570-475 BC)

- Rhapsodian
 - ✓ Parody to mythology
- ➤ Ridiculing myths
 - ✓ Why should men behave in a good way, if Greek gods are corrupted?
- ➤ Ridiculing Heracleitus ???
 - ✓ Nothing changes
- ➤ Inspiration to Eleatics



https://www.iep.utm.edu/xenoph/

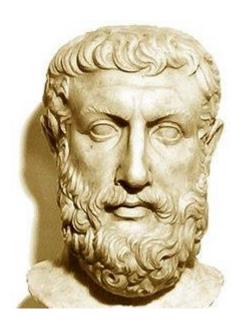


Parmenides

(c. 510-450 BC)

- Founder of Eleatic school
- ✓ What exists, just exists and you can study it (positive way)
- ✓ Nonexistence cannot exist and if you try to study it, you will find that is not possible (negative way)
- ✓ Ambiguity (some things exist and some does not) is a way of fools
- √ There is no movement (movement precepted by our senses is an illusion)





https://en.wikipedia.org/wiki/Parm enides

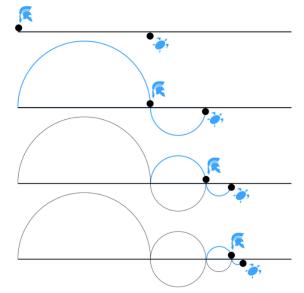


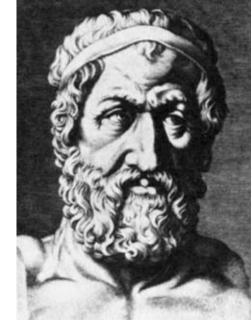
Zeno of Elea

(c. 490-430 BC)

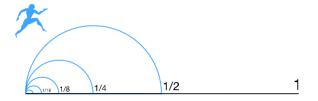
- Proof by contradiction
- ➤ Aporia paradox
 - ✓ The arrow

 - √ Bisection of abscissa





https://www.philosophybasics.com /philosophers_zeno_elea.html



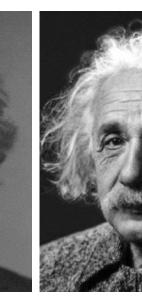


Heraclitus - Zen

✓ Limits of logical thinking (argumentum ab absurd)



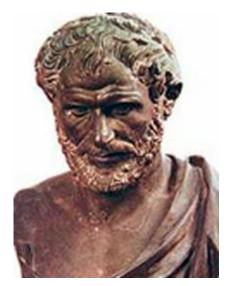




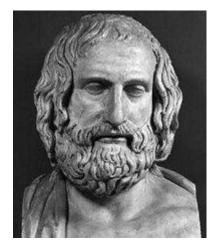


Preatomists

- Empedocles
- (c. 490 430 BC)
 - Synthesis of Herakleitus and Eleats
 - ✓ Everything is based on existence of four elements (Water, Air, Earth and Fire) which have been continually transformed by the powers of Love and Strife
 - ✓ One God is the origin of Motion
- Anaxagoras
- (c. 500 428 BC)
 - Introduced philosophy in Athens
 - ✓ Four elements replaced with the unlimited amount of elements (seeds)
 - ✓ Origin of Motion is Nus (abstract Spirit/God/Mind/Reason), which organized original chaos to logos



https://theaeoneye.com/tag/empedocles/



https://www.philosophybasics.com/philosophers_anaxagoras.html



Atomists

- **Leukippos** (c. 500 440 BC)
- **Democritos** (c. 460 370 BC)
- ✓ The things are composed of indivisible particles (atomoi), which naturally move (fall), connect each other and disconnect (emergence and extinction of things)
- ✓ Everything is ruled by logos
- ✓ Existence of emptiness



https://www.crystalinks.com/democritus.html



Preatomists – atomists

- ✓ Synthesis of previous philosophy
- ✓ The first attempt to create a system



Sophists

- **Protagoras** (c. 481 411 BC)
- **Gorgias** (483-375 BC)
- ✓ Teachers of logic and rhetoric in Athens
- ✓ Also focused on gnoseology and social issues (laws, economy)
- ✓ Emphasized the role of rhetoric and argumentation
- ✓ The second generation falls into formalism



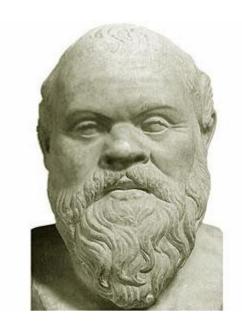
Czech nature according to Shooty (Martin Šútovec)



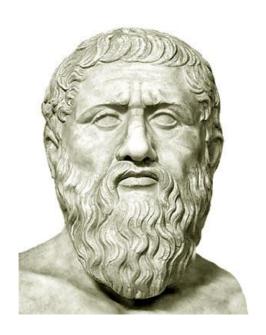
Socrates (470-399 BC)

Plato (427-347 BC)

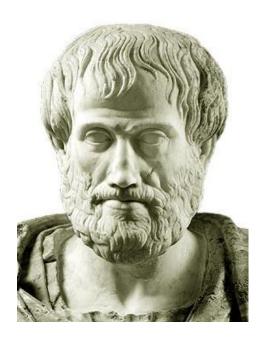
Aristotle (384-322 BC)



https://edukalife.blogspot.cz/2015/07/soc rates-biography-greek-philosopher-is.html



https://www.biografiasyvidas.com/bio grafia/p/platon.htm



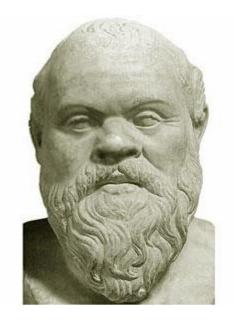
https://www.biografiasyvidas.com/monog rafia/aristoteles/



Socrates

(469-399 BC)

- ➤ Focused on ethical aspects
- ➤ Not interested in cosmology or nature
- ➤ Dialectic method (dialogue)
- ✓ Socratic paradoxes
 - No one desires evil.
 - No one does wrong willingly or knowingly.
 - Virtue—all virtue—is knowledge.
 - Virtue is sufficient for happiness.
 - I know that I know nothing.



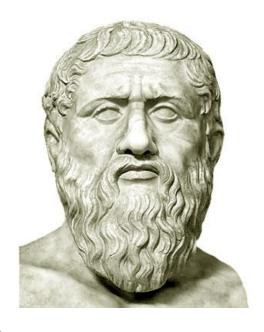
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Plato

(427-347 BC)

- ➤ 35 -36 dialogues, letters
 - Early dialogues (Socratic)
 - √ Socrates´ philosophy
 - Dialogues of mature period
 - ✓ Platos' ideas presented by Socrates
 - Late dialogues
 - ✓Influence of Aristotle
- ➤ Platonic academy (387-86 BC (430-529))
- ➤ Plato did not like democracy
 - ✓ Democracy was responsible for the death of Socrates
 - ✓ Democracy lost the war against Sparta
 - ✓ Democracy is not constructive (politicians discus too much)
- ➤ Is possible to create better system?



https://www.biografiasyvidas.com/biografia/p/platon.htm



Republic

- > Logic excercise, not meant as a guide
- > Socratic paradox
 - ✓ Good ideas may result in bad things when we try to implement them in their purest form
- An attempt to define ideal political systém, which would immune to such mistakes as Socrates punishment
- The citizens would be divided into the three groups according to personal qualities:
 - ✓ Rulers (Philosopher Kings)
 - ✓ Warriors/Guardians
 - ✓ Workers
- The citizen would be paired according to their qualities (the best with the best, the worst with the worst)
 - To prevent rebelion, manipulated draw would be performed (mimicking the will of the gods)
- > Children would be taken and raised institutionally
- In the last dialogue (The Laws) direct application of the laws was elaborated (no more rule of humans)



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Rationalism carried out ad absurdum



Allegory of the Cave (Republic)

What is reality? What we consider to be real





Material world

Perception

https://www.vibrantho me.co.uk/rice-dk-applegreen-small-melaminekids-cup.html







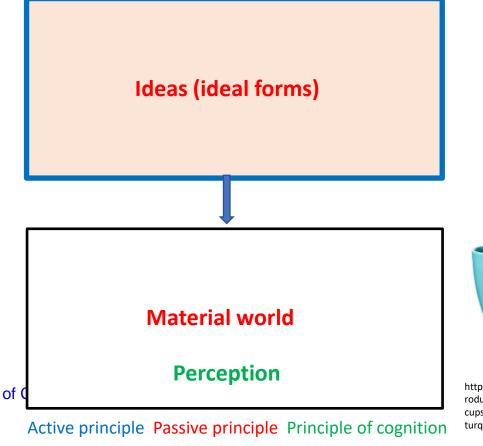
Perception

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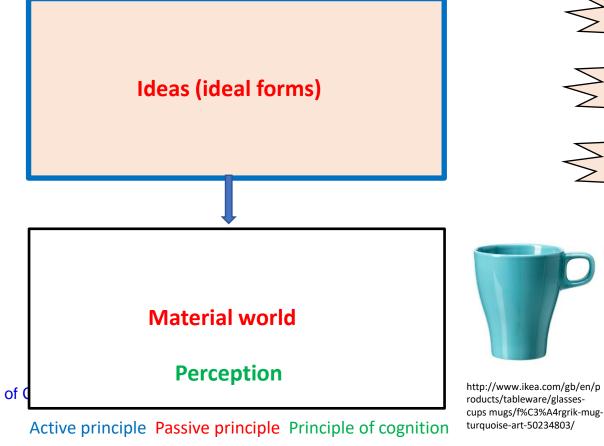
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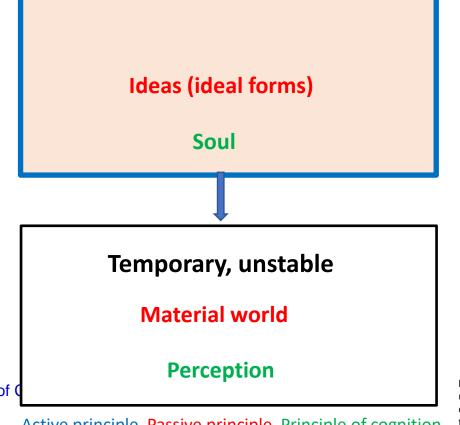






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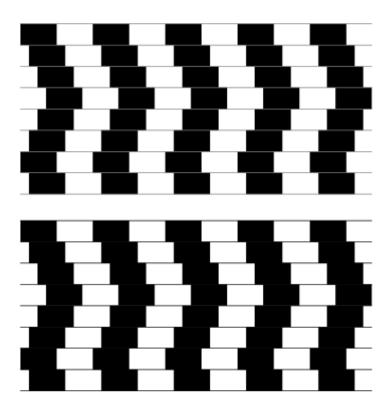
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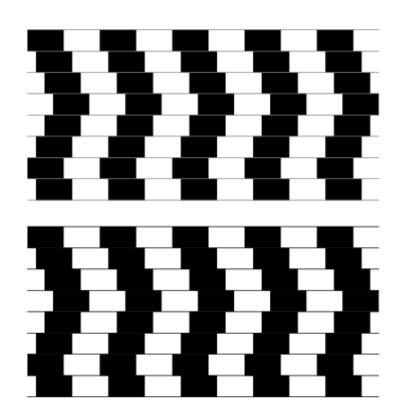
We cannot fully trust perception



http://mathworld.wolfram.com/CafeWallIllusion.html



We cannot fully trust perception



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Diagram 1

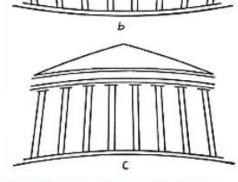
The temple as it visually appears with correction

Diagram 2

The temple as it would appear without correction

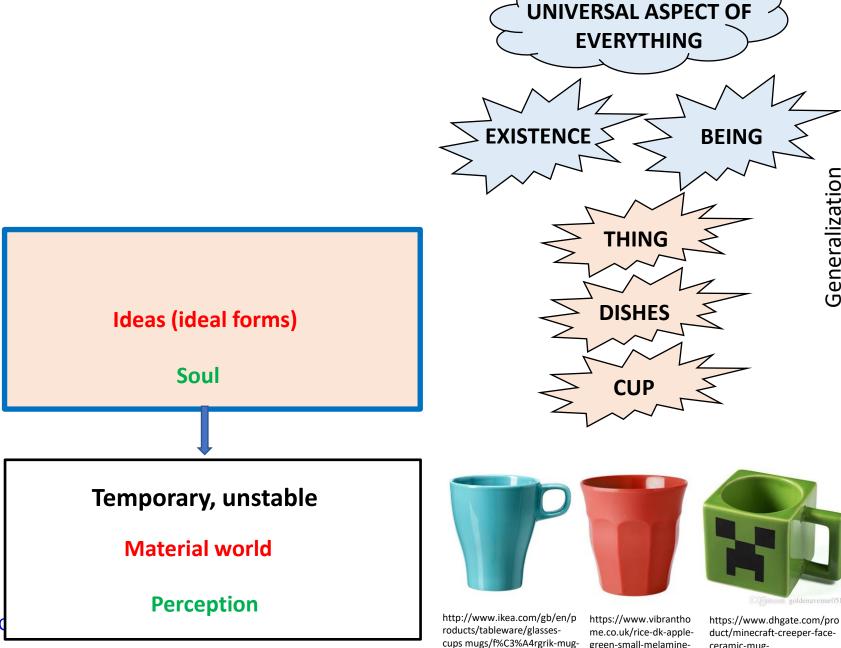
Diagram 3

The temple as it is actually built with Correction



Optical Correction (Entasis) In Doric Temples







Generalization

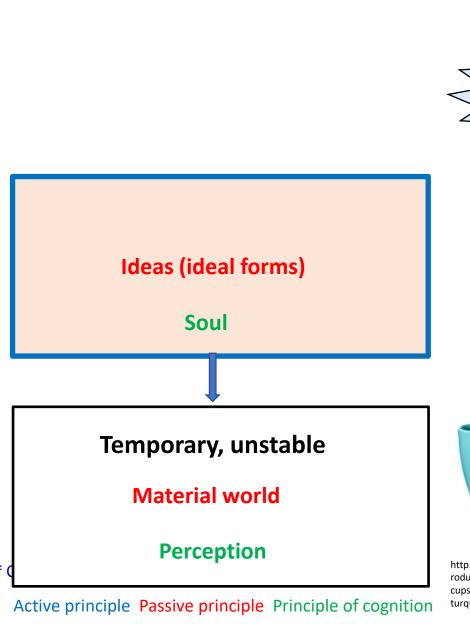
green-small-melamine-

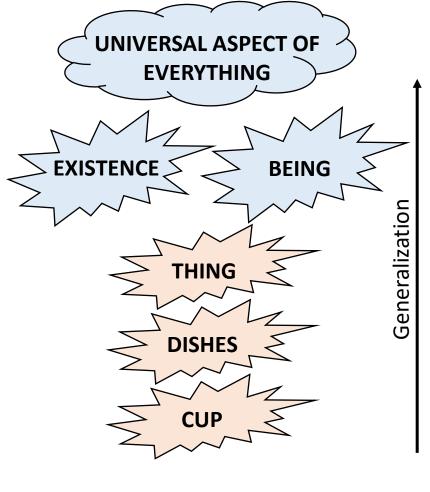
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coffee/269525497.html







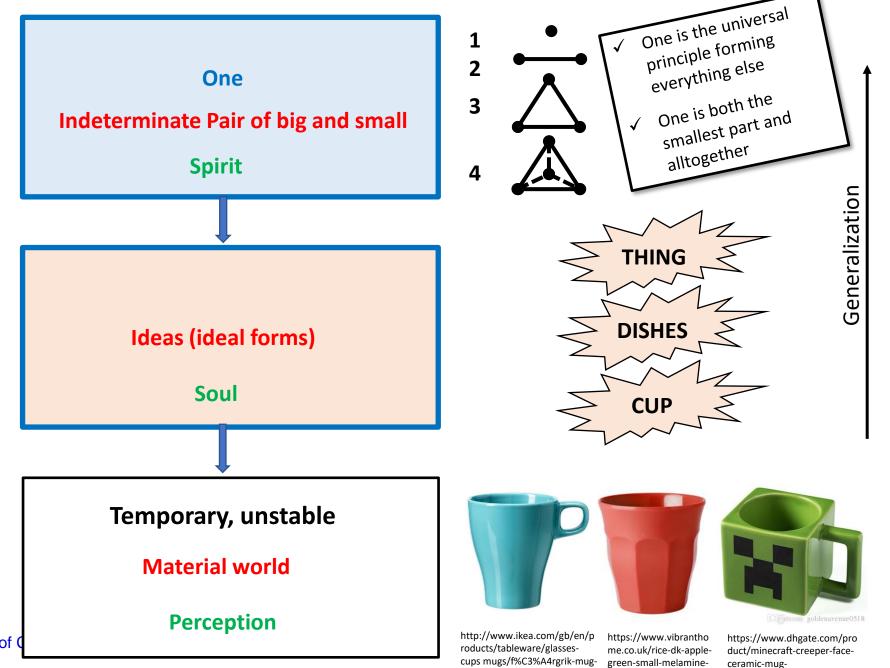
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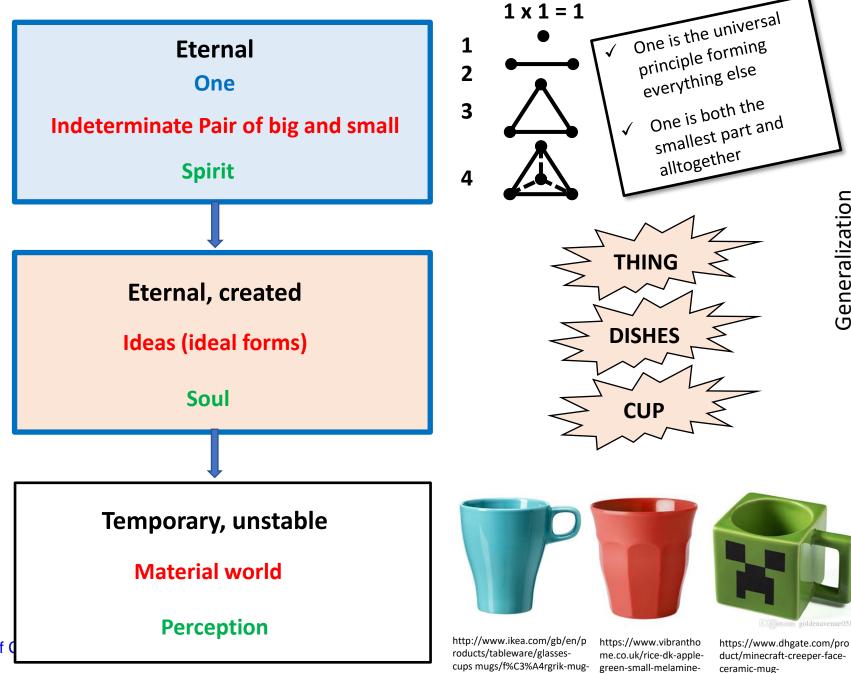
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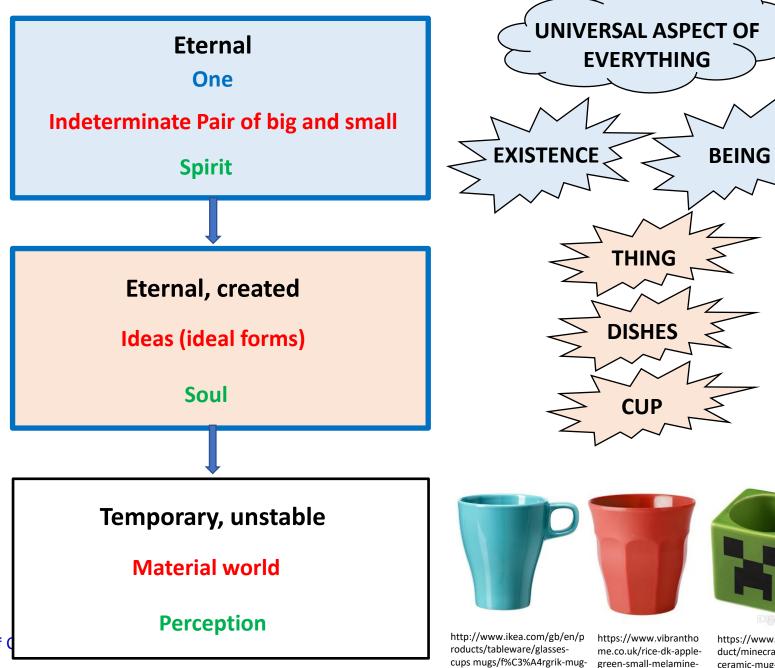
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Generalization

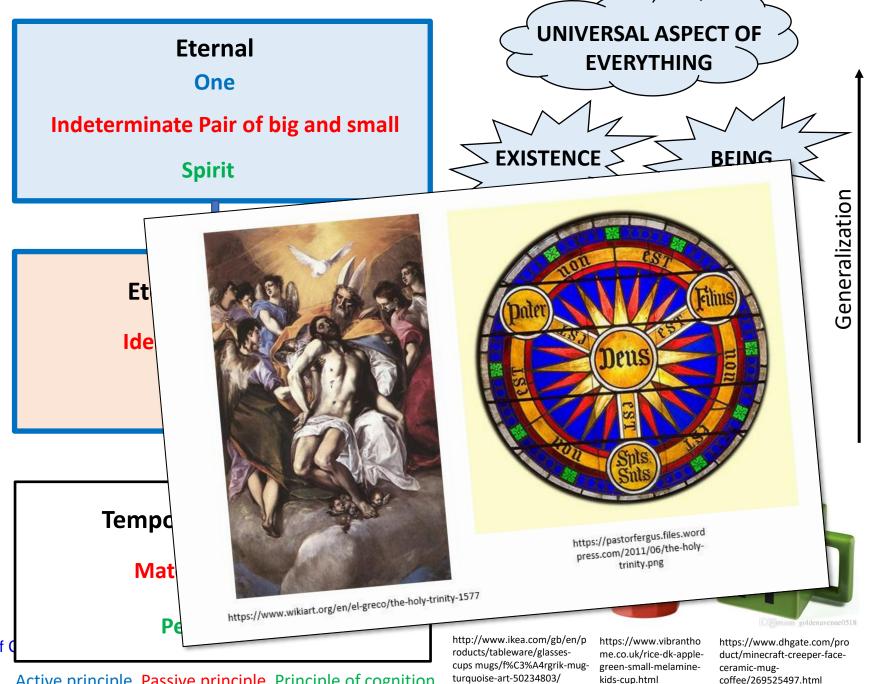




kids-cup.html

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Generalization

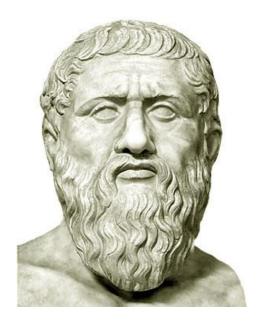




Plato

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 - Early dialogues (Socratic)
 - √ Socrates´ philosophy
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 - Late dialogues
 - ✓Influence of Aristotle
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- ➤ Plato did not like democracy
 - ✓ Democracy was responsible for the death of Socrates
 - ✓ Democracy lost the war against Sparta
 - ✓ Democracy is not constructive (politicians discus too much)
- ➤ Dialogs do not reflect Plato's oppinon, but represents a set of arguments (possible "textbook" in Academy)
- ➤ System of ideas (reconstructed in 20. century)



https://www.biografiasyvidas.com/biografia/p/platon.htm



Aristotle

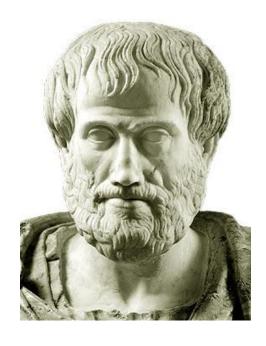
(384-322 BC)

> Synthesis of previous philosophy

- A system based on Greek ideals of harmony and moderation.
- Combined two main streams
 - ✓ Physical-materiál (Milesian-Heracleitian-Deomcrititan)
 - ✓ Logical-abstract (Pythagorean-Eleatic-Platonic)

> Rationalization, categorization

- ✓ Logic (Organon tool of thinking Categories, On interpretation, Analytics, Topics...)
- ✓ Nature philosophy (Physics, On the Heavens, History of animals, Generation of animals, Parts of animals, On the Soul...)
- ✓ Metaphysics (First philosophy)
- ✓ Ethics (Ethics, Nicomachean Ethics)
- ✓ Politics and economy (Politics)
- ✓ Rhetoric and poetics (Rhetoric, Poetics)

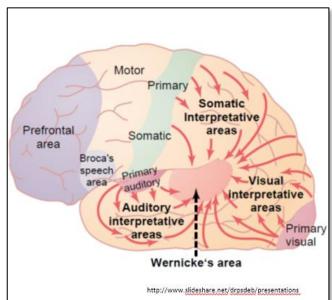


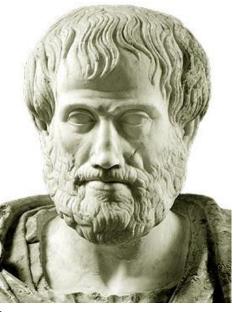
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Aristotle

- ➤ Deductive reasoning
 - Aristotle has established formal rules of deduction
 - Aristotelian syllogism
 - √ 1. General statement (All the men are mortal)
 - ✓ 2. Specific statement (Socrates is a man)
 - √ 3. Conclusion (Socrates is mortal)
- > Ideas are not entities, it is just a product of reasoning
- Emphasized empirism (the most important is, according to Aristotle, tactile sensation, because all the animals have an ability of tactile sensation)
- > Four causes (on the example of statue)
 - Material (marble; Milesian)
 - Formal (shape; eleats)
 - Efficient (hand of artist, pre-atomists)
 - The final cause meaning (function of the st.; A.)
 - ✓ The most important is the final cause
 - ✓ The universe has been evolved to have a purpose and to be suitable for creation of human beings.
 - ✓ Prime mover a primary cause God





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Aristotle

> Theory of the soul

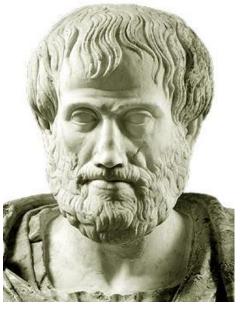
- Based on relation between form (soul) and substance (body)
- The soul is determinant which makes the body real (living)
- Vegetative (Plants, animals, humans)
- Sensory (Animals, humans)
- Rational (Humans)

> Ethical aspects associated with the theory of the soul

- Humans are rational beings and reasoning should lead to moderation, however sensoric and vegetative souls should not be supressed too much (no ascetism)
- Golden middle way
- The purpose of life is to develop abilities
 - > Two ways
 - ✓ Ethical reign of reason over instincts
 - ✓ Dianoetic improving of reason

➤ Ideal political system

- The form of political systém should correspond to the specific need of the nation at that time
- The relationship between citizen and state should be based on generosity and criterion of general benefit



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"The whole is greater than the sum of its parts"



Philosophy, science and hinking

Rational Irrational

Reductionism

Milesian school

Reductionism

Pythagorean school

Abstract thinking, holistic approach

Heraclitus – Zeno

Limits of logical thinking

Preatomists - atomists

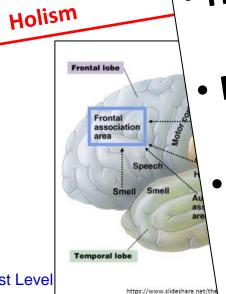
The first attempt to create systems

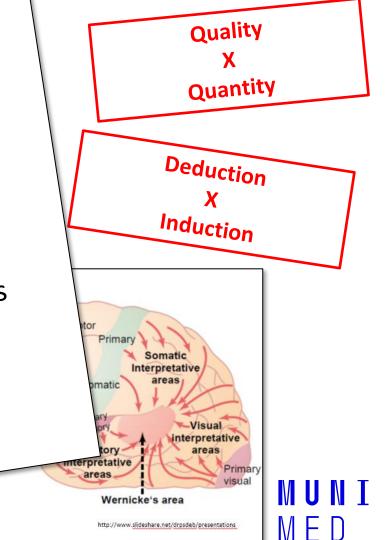
Hippocampus

Socrates – Plato – Aristotle

• Ethics

The first systems



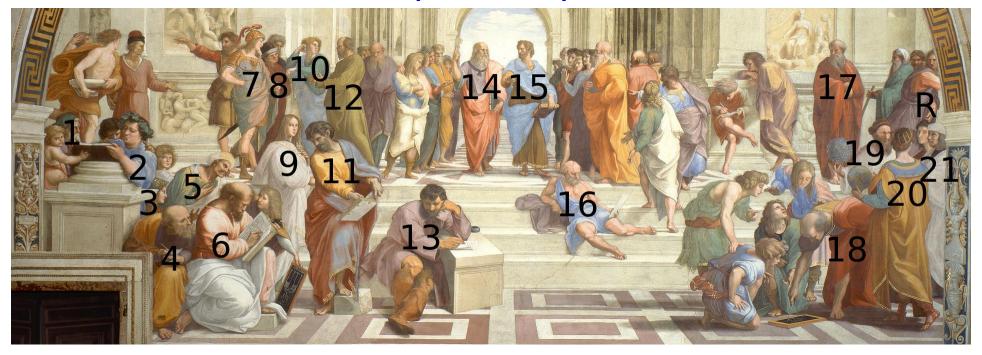


Raffael Santi – Athénská škola (1509-1510)



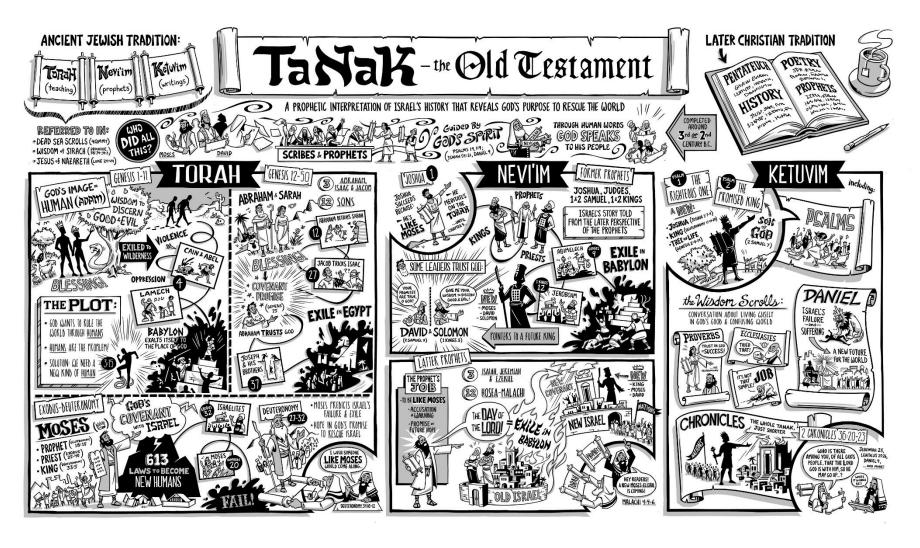


Raffael Santi – Athénská škola (1509-1510)



1: Zeno of Citium 2: Epicurus 3: unknown 4: Boethius or Anaximander 5: Averroes 6: Pythagoras 7: Alcibiades or Alexander the Great or Pericles 8: Antisthenes or Xenophon 9: unknown (sometimes identified as Hypatia in recent popular sources) or Fornarina as a personification of Love (Francesco Maria della Rovere?) 10: Aeschines 11: Parmenides or Nicomachus 12: Socrates or Anaxagoras 13: Heraclitus (Michelangelo?) 14: Plato (Leonardo da Vinci?) 15: Aristotle (Giuliano da Sangallo?) 16: Diogenes of Sinope or Socrates 17: Plotinus? 18: Euclid or Archimedes (Bramante?) 19: Strabo or Zoroaster? (Baldassare Castiglione?) 20: Ptolemy R: Apelles (Raphael) 21: Protogenes (Il Sodoma or Timoteo Viti)

Judaism



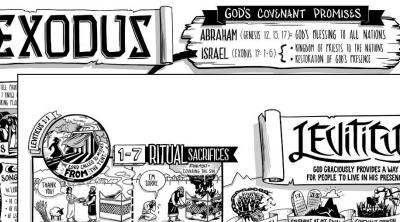
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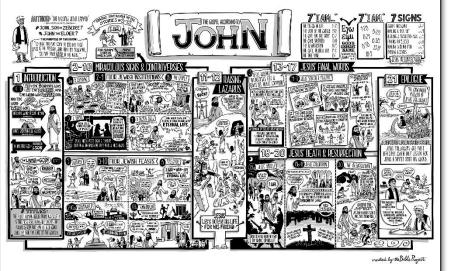




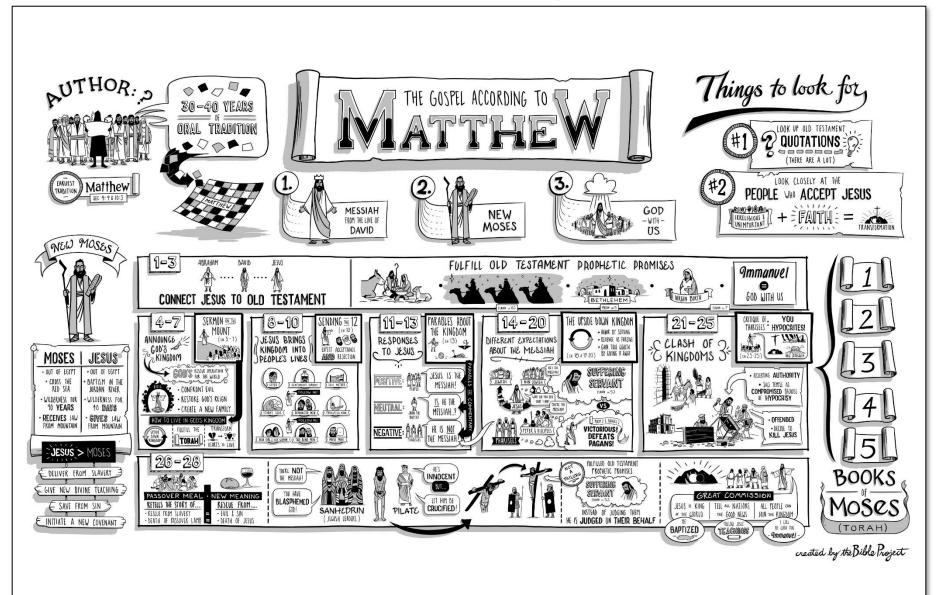




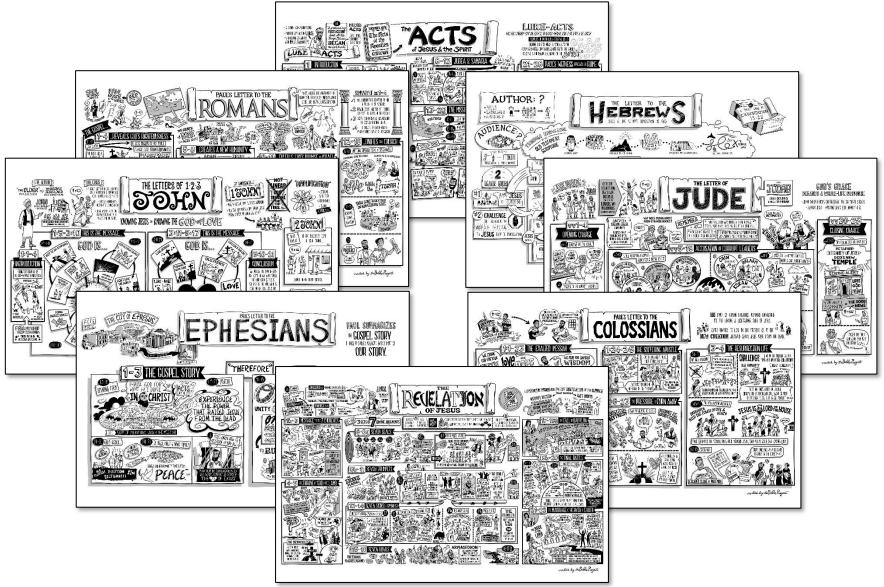




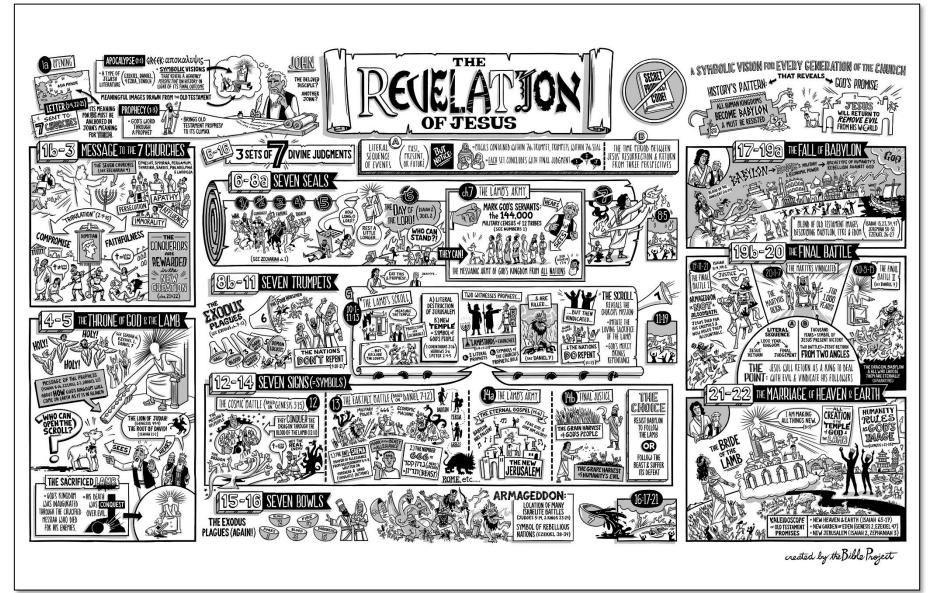






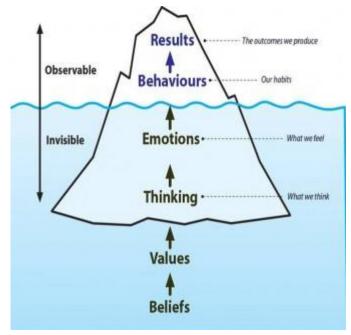




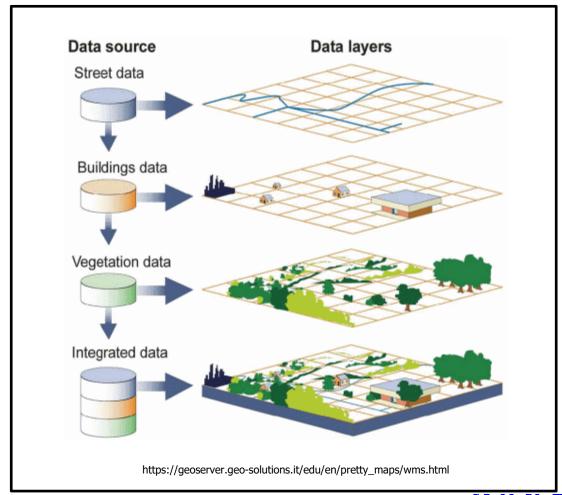




- ✓ Jewish tradition
- √ Greek tradition
- √ (Roman tradition)

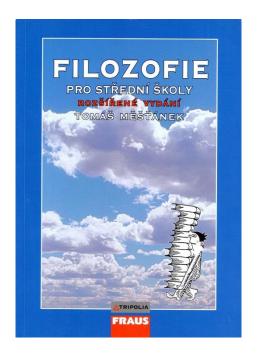


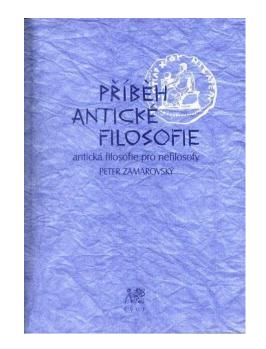
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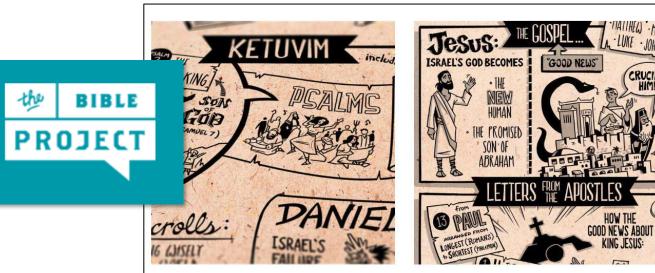


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Read Scripture: New Testament



Read Scripture: Old Testament

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