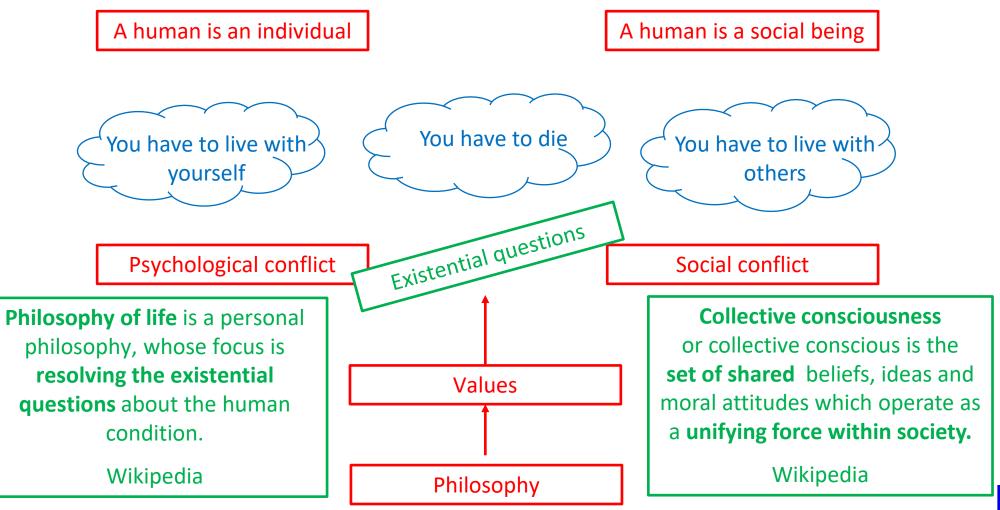
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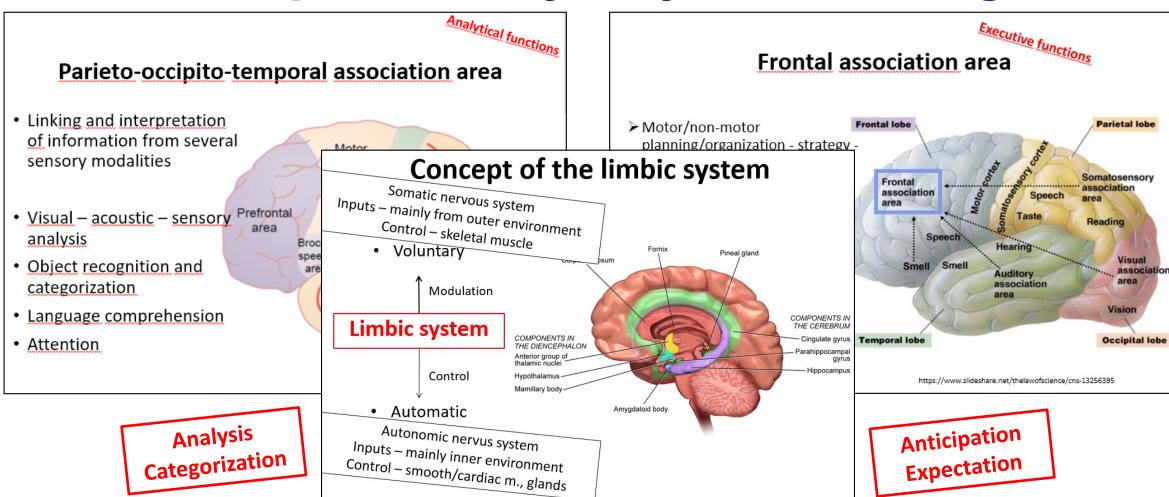


# The Highest Level of Cerebral Activity II

# Why?



# Complementary ways of thinking



Drive

https://upload.wikimedia.org/wikipedia/commons/d/d1/Blausen\_0614\_LimbicSystem.png



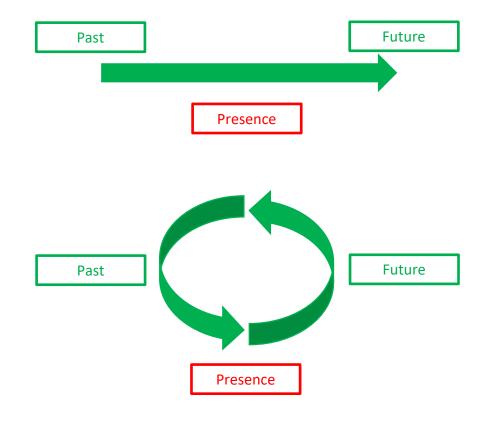
# Mythology and philosophy

- 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



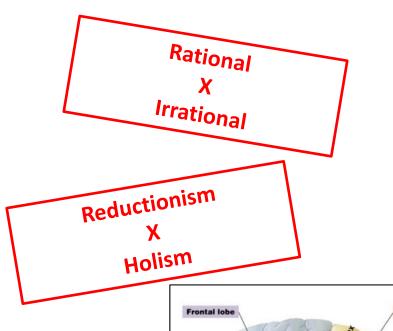
# Mythology and philosophy

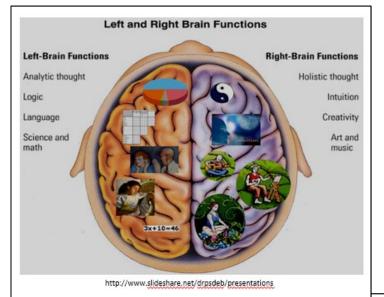
- All the nations have a mythology
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  - Values
- Explanation of complex issues
  - Pseudorational/iractional
  - Protscience
  - Symbolism education
- Intuitive understanding of cyclic time
   (The cyclic time model was established much later by followers of Pythagoras)
- Myth Philosophy Science (August Comte)

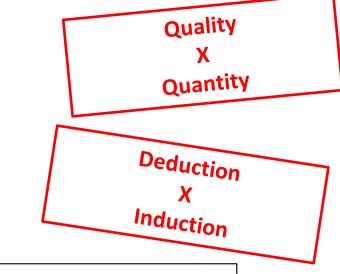


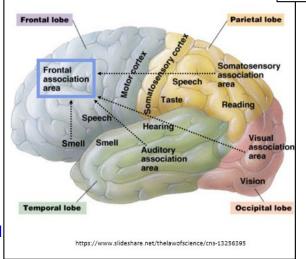


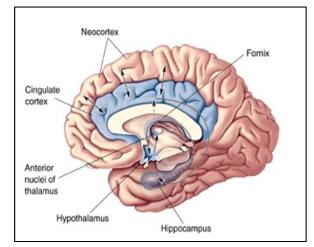
# Philosophy, science and thinking

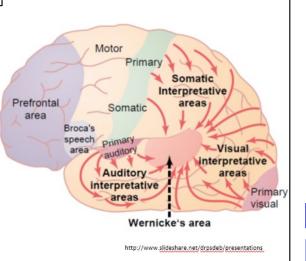






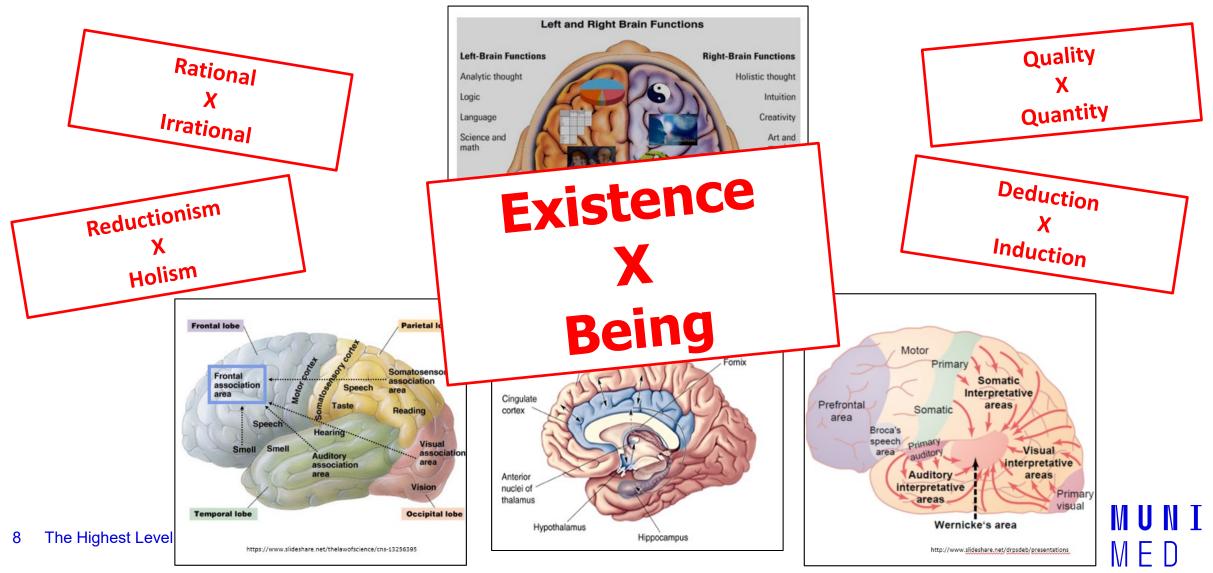








# Philosophy, science and thinking

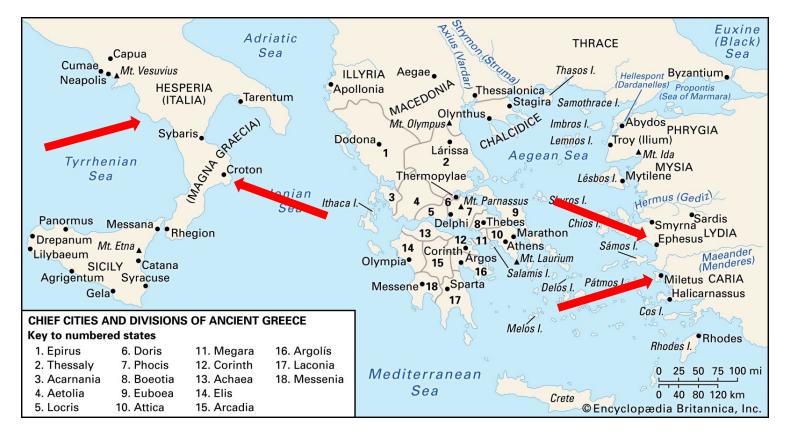


# **Antique philosophy**

- 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



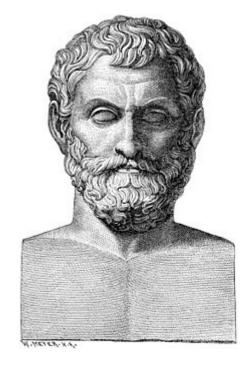
#### **Thales of Miletus**

(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



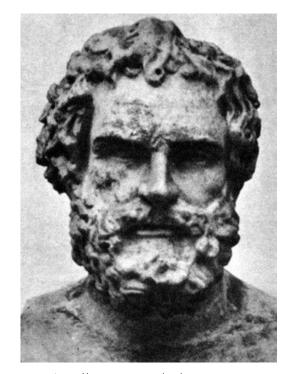
https://www.aldebaran.cz/famous/people/Anaximandros.php



## **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

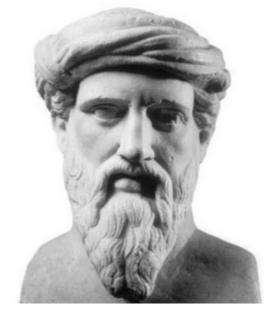
- The first real school of philosophy
- Searching for mathematical rules of logos/harmony





(c. 570-495 BC)

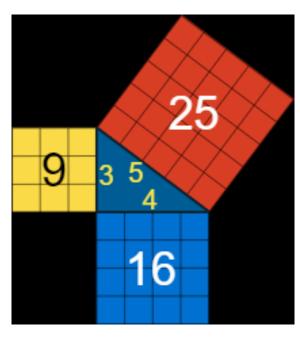
- ➤ Founder of the Pythagorean school
- ➤ Philosophy had a mystical character and the school might resemble sect
- ✓ Introduced "modern" meaning many terms like theoria, logos, cosmos etc.



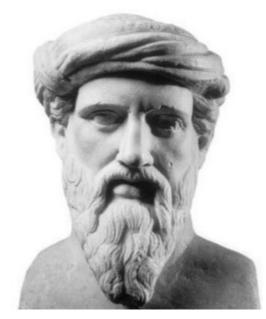
https://www.goodreads.com/phot o/author/203707.Pythagoras



(c. 570-495 BC)



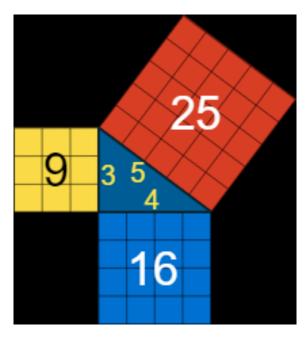
https://www.mathsisfun.com/pythagoras.html



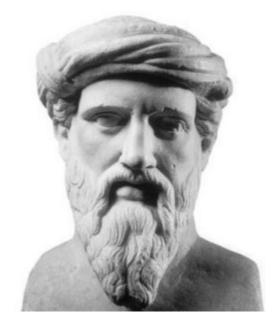
https://www.goodreads.com/phot o/author/203707.Pythagoras



(c. 570-495 BC)



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

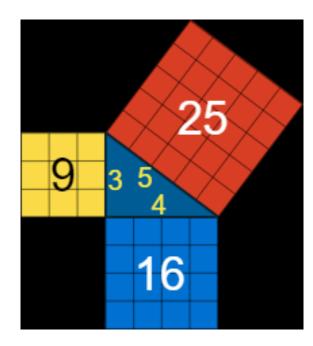


https://www.goodreads.com/phot o/author/203707.Pythagoras

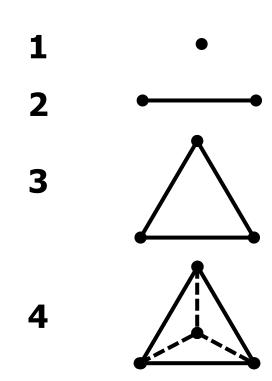
#### Philosophical meaning of Pyythagora's Theorem

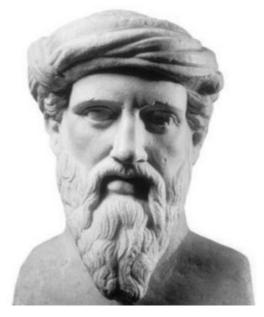
When you reach higher level, you can find relationships which are not visible on a lower level.

(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





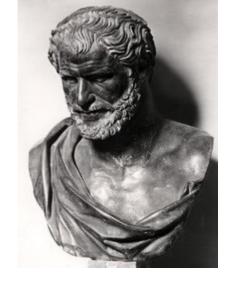
## **Heraclitus of Ephesus**

(c. 540 - 480 BC)

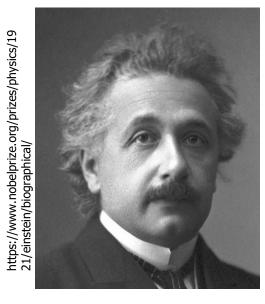
- ➤ Dynamic approach
  - ➤ Ever-present change as fundamental essence
    - √ There are no static things
  - ➤ Origin fire
    - ✓ Fire is dynamic and changes everything
  - ➤ Dynamism is organized by logos
- > Dynamism may be also considered as a fight/antagonism

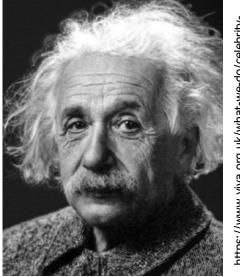






http://www.xn--ideayaynevi-5zb.com/adlar/herakleitos.html

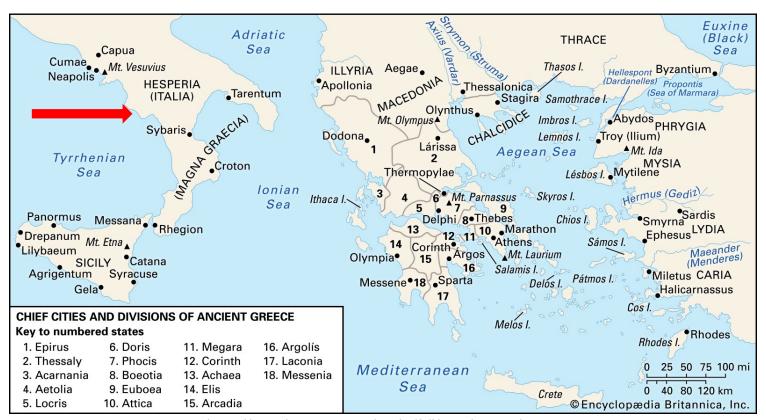






#### **Eleatics**

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

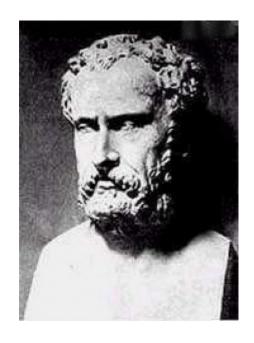




## Xenophanes

(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/

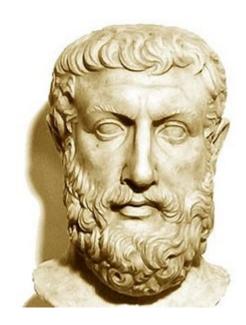


## **Parmenides**

(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



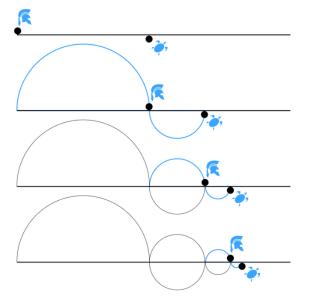
## **Zeno of Elea**

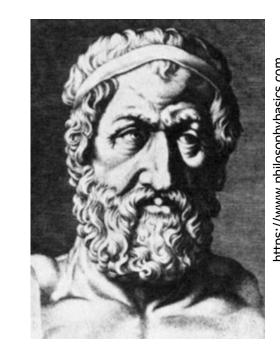
(c. 490-430 BC)

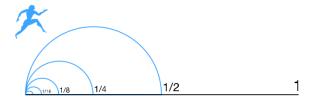
- Proof by contradiction
- ➤ Aporia paradox
  - ✓ The arrow

  - √ Bisection of abscissa









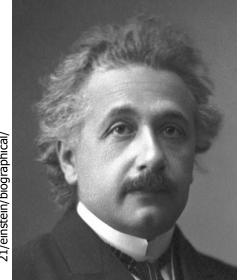


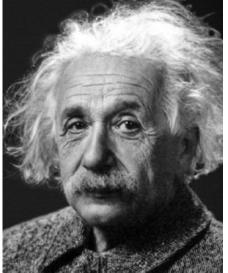
## Heraclitus - Zen

✓ Limits of logical thinking (argumentum ab absurd)





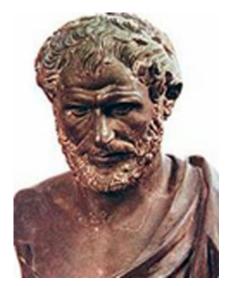




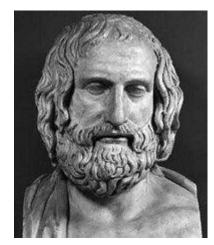


#### **Preatomists**

- 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/

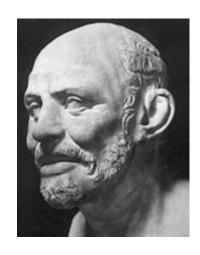


https://www.philosophybasics.com/philo sophers\_anaxagoras.html



#### **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**

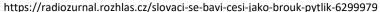
- ✓ Synthesis of previous philosophy
- ✓ The first attempt to create a system



## **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



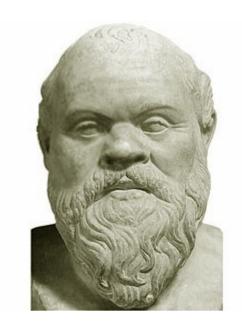




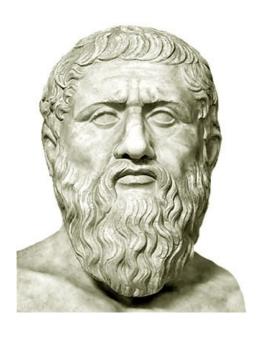
**Socrates** (470-399 BC)

**Plato** (427-347 BC)

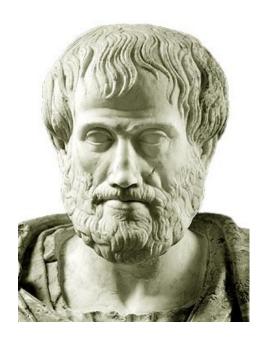
**Aristotle** (384-322 BC)



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



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



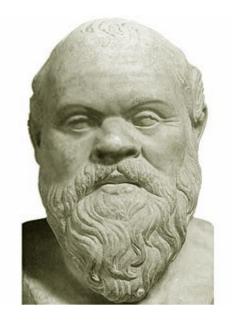
https://www.biografiasyvidas.com/monog rafia/aristoteles/



#### **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.



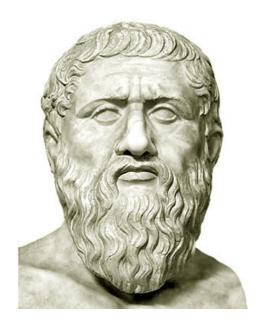
https://edukalife.blogspot.cz/2015/07/soc rates-biography-greek-philosopher-is.html



## **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)
- **≻**Ideas



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



**Material world** 

**Perception** 

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

35 The Highest Level of (

Active principle Passive principle Principle of cognition





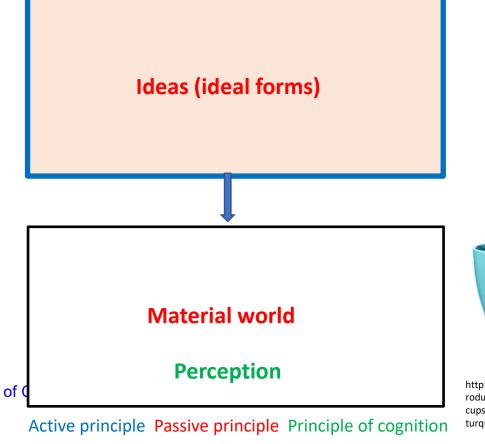
#### **Perception**

http://www.ikea.com/gb/en/p roducts/tableware/glassescups mugs/f%C3%A4rgrik-mugturquoise-art-50234803/













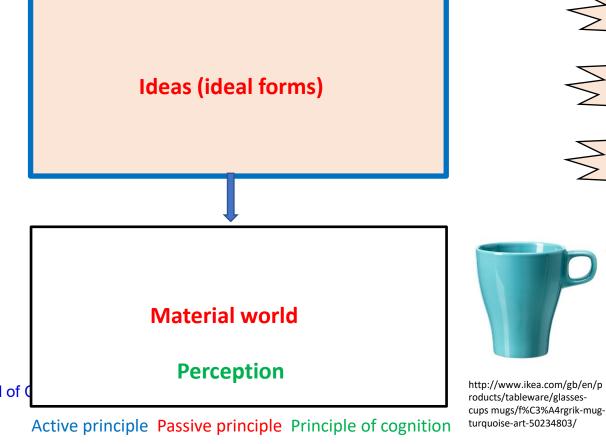
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https://www.dhgate.com/pro duct/minecraft-creeper-faceceramic-mugcoffee/269525497.html







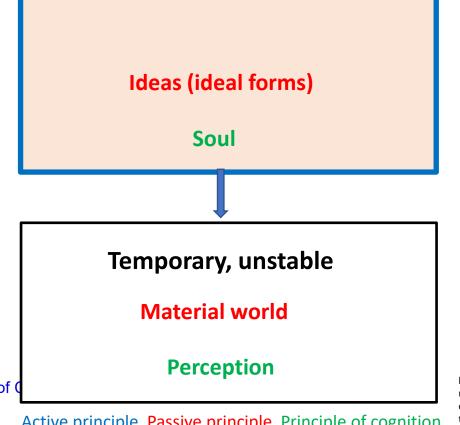






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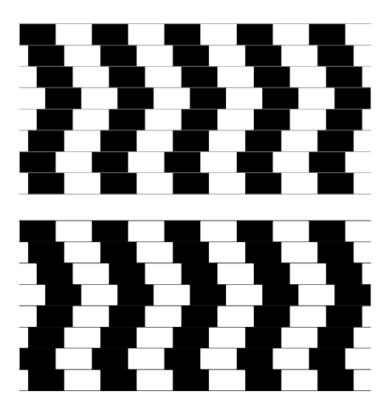




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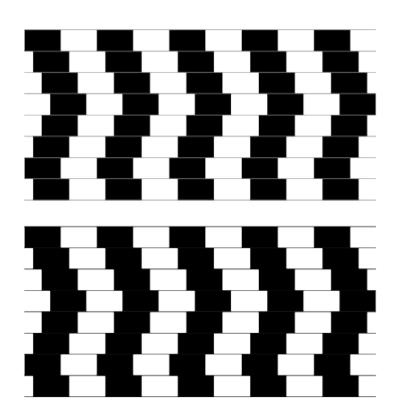
# We cannot fully trust perception



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



# We cannot fully trust perception



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

#### Diagram 1

The temple as it visually appears with correction

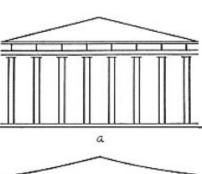
#### Diagram 2

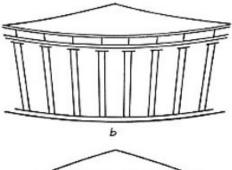
The temple as it would appear without correction

#### Diagram 3

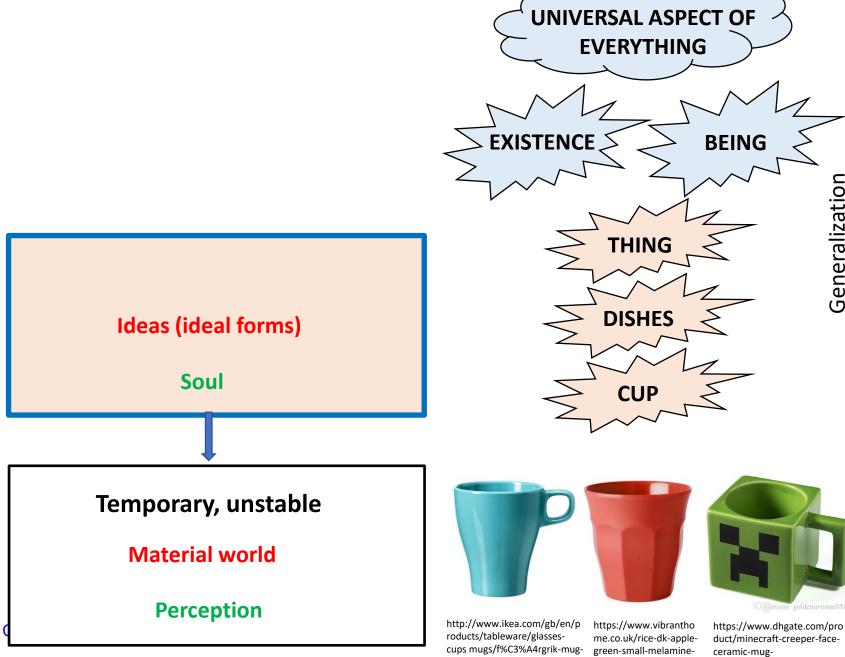
The temple as it is actually built with Correction

Optical Correction (Entasis) In Doric Temples









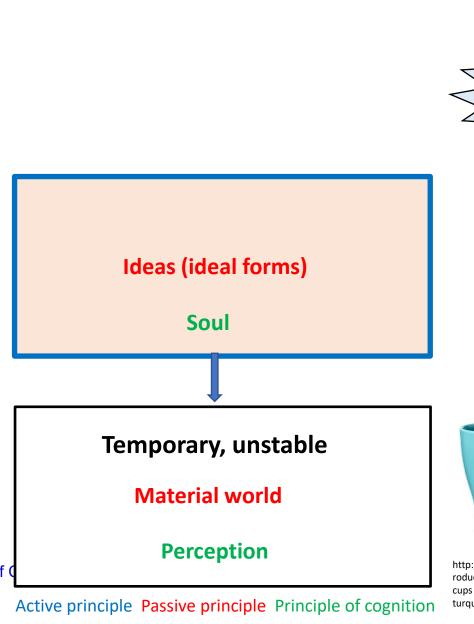
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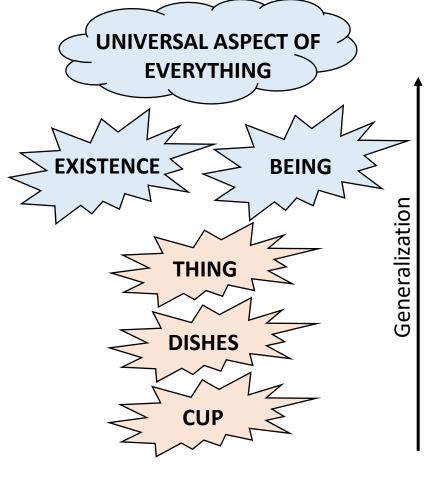
kids-cup.html

MED

Generalization

coffee/269525497.html







http://www.ikea.com/gb/en/p roducts/tableware/glasses-cups mugs/f%C3%A4rgrik-mug-turquoise-art-50234803/ k



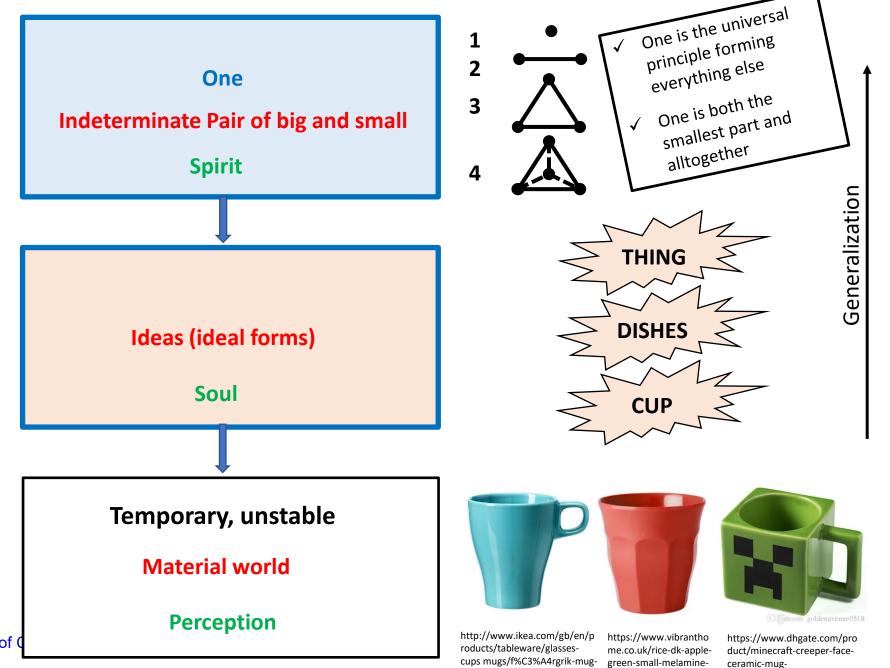


https://www.dhgate.com/pro duct/minecraft-creeper-faceceramic-mugcoffee/269525497.html



https://www.pilina.cz/poharya-korbely/dreveny-korbel-snerezem/

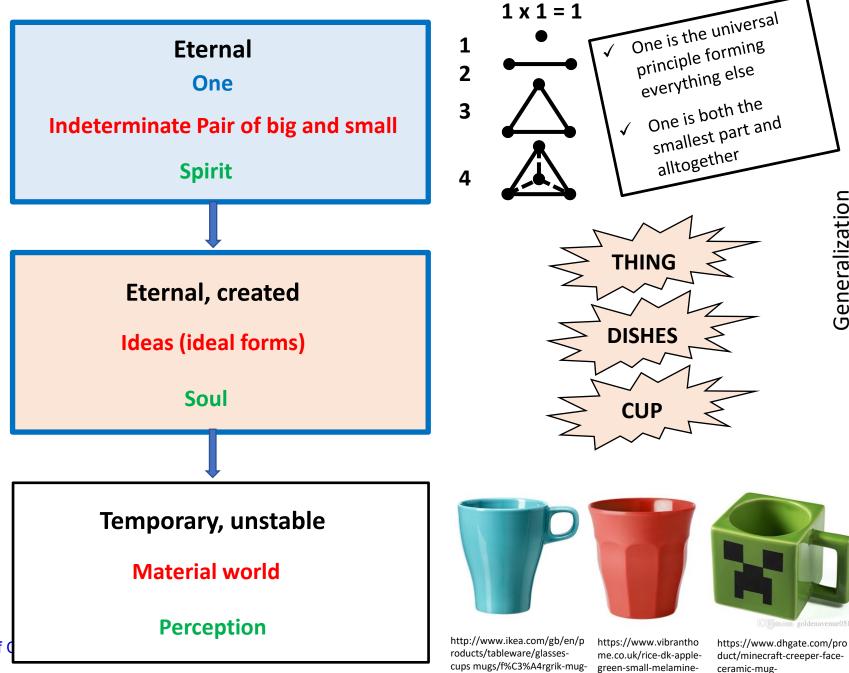




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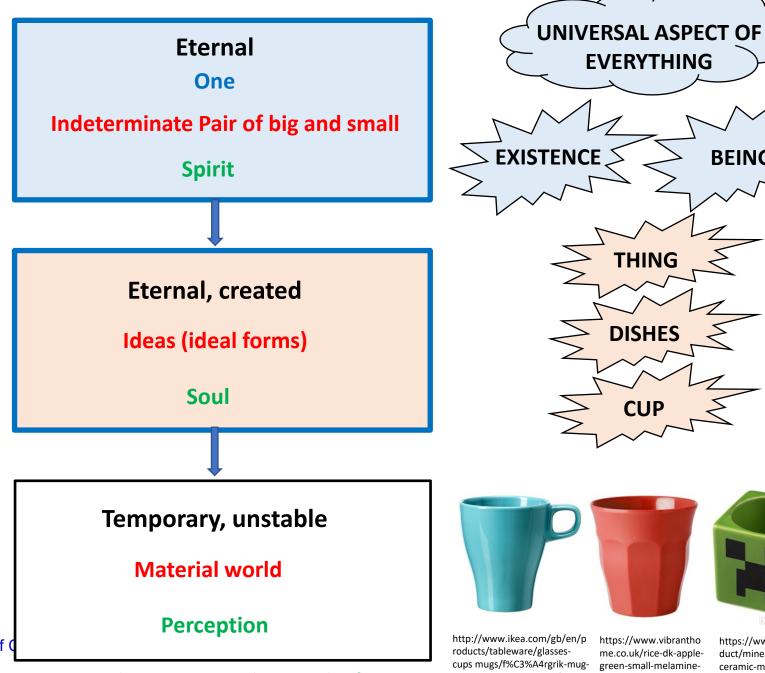
turquoise-art-50234803/

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Generalization



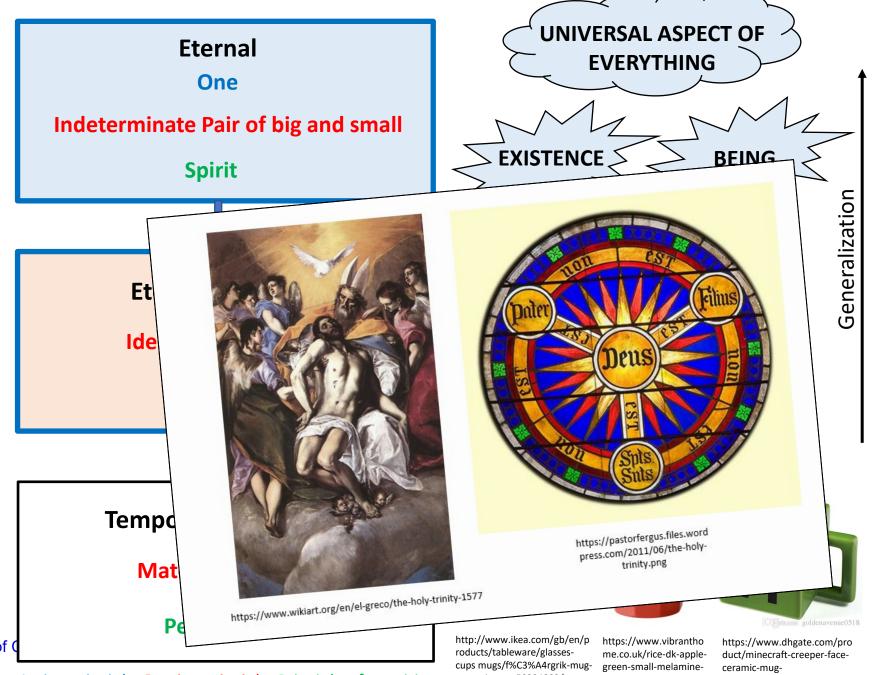


kids-cup.html

https://www.dhgate.com/pro duct/minecraft-creeper-faceceramic-mugcoffee/269525497.html

**BEING** 

Generalization



MUNI MED

# 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)





# **Allegory of the Cave (Republic)**

What is reality? What we consider to be real





# Aristotle

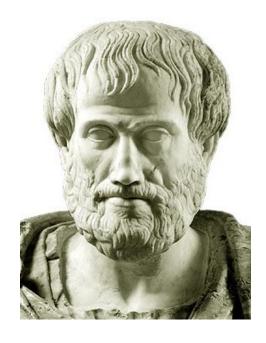
(384-322 BC)

#### > 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)

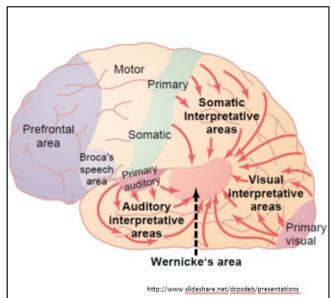


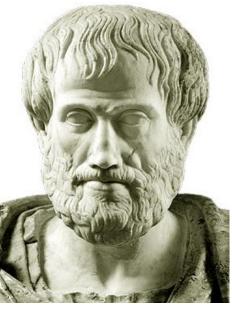
https://www.biografiasyvidas.com/monografia/aristoteles/



#### **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





https://www.biografiasyvidas.com/mo nografia/aristoteles/



## **Aristotle**

#### > Theory of the soul

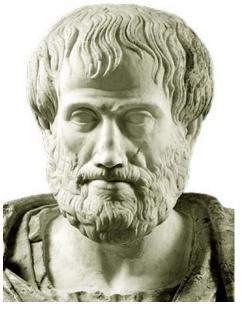
- Based on relation between form (soul) and substance (body)
- The soul is determinant which makes the body real (living)
- Vegetative (Plants, animals, humans)
- Sensory (Animals, humans)
- Rational (Humans)

#### > 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 philosophy, science hinking

Rational Irrational

Reductionism

Milesian school

Reductionism

• Pythagorean school

Abstract thinking, holistic approach

Heraclitus – Zeno

Limits of logical thinking

Preatomists - atomists

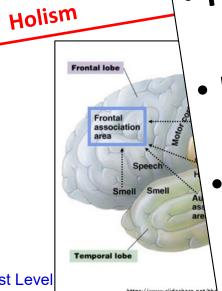
The first attempt to create systems

Hippocampus

Socrates – Plato – Aristotle

• Ethics

The first systems



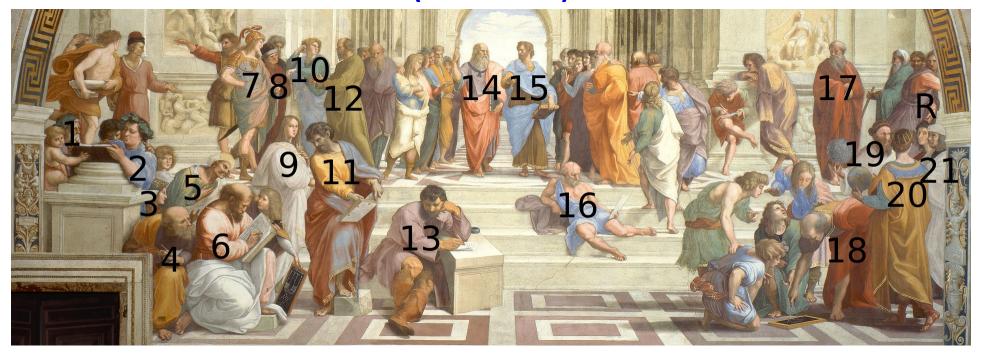
Quality Quantity Deduction Induction Somatic Interpretative Visual interpretative Primary Wernicke's area

# Raffael Santi – Athénská škola (1509-1510)



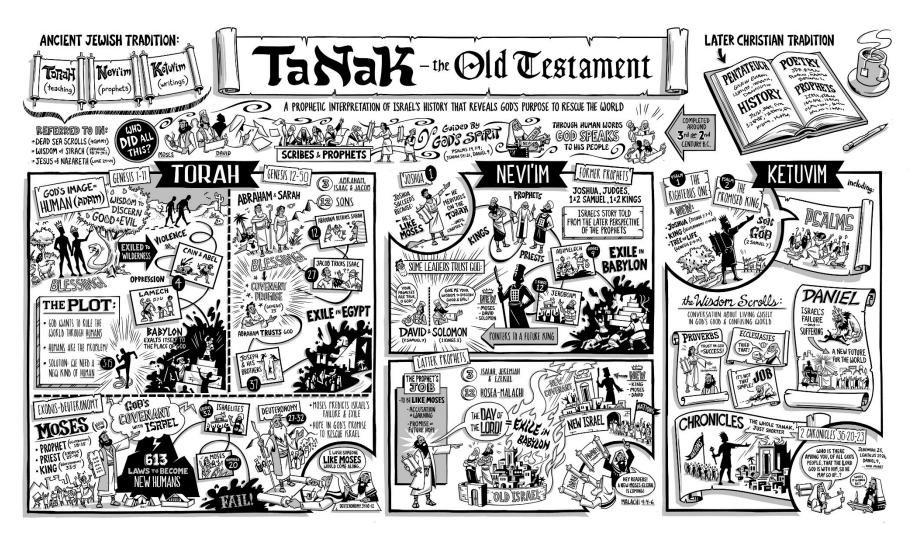


# Raffael Santi – Athénská škola (1509-1510)



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)

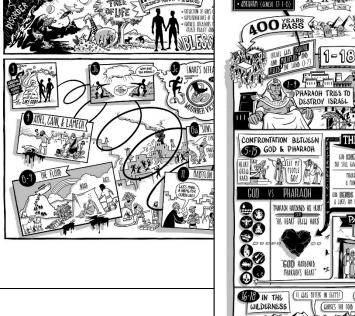
## **Judaism**



https://thebibleproject.com/all-videos/ https://thebibleproject.com/otherresources/posters/



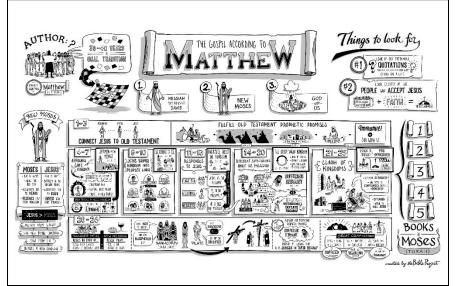






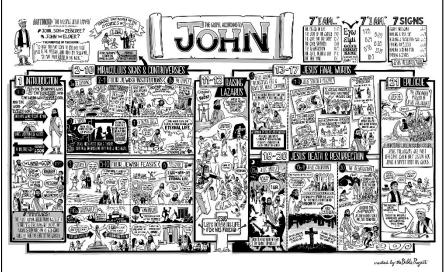








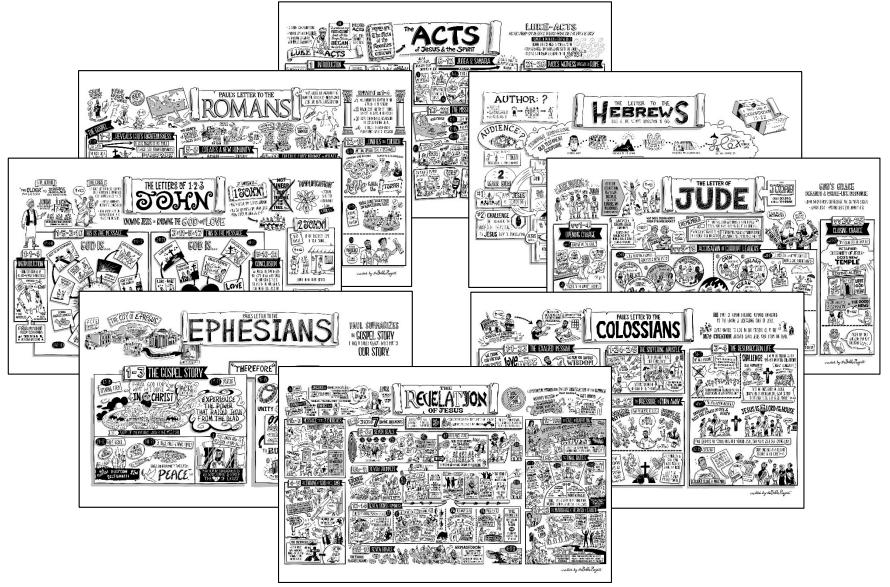




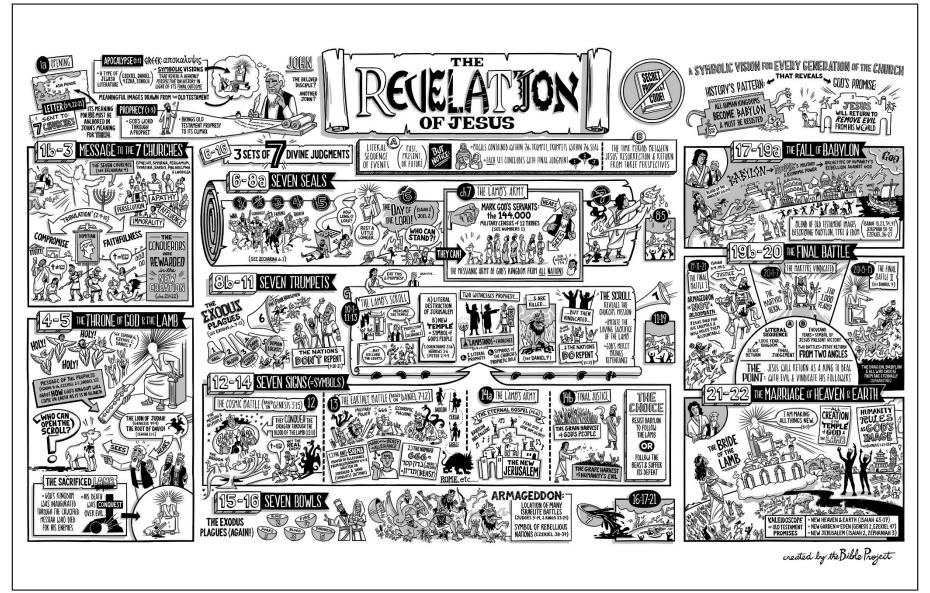










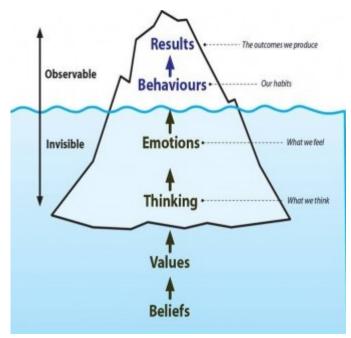


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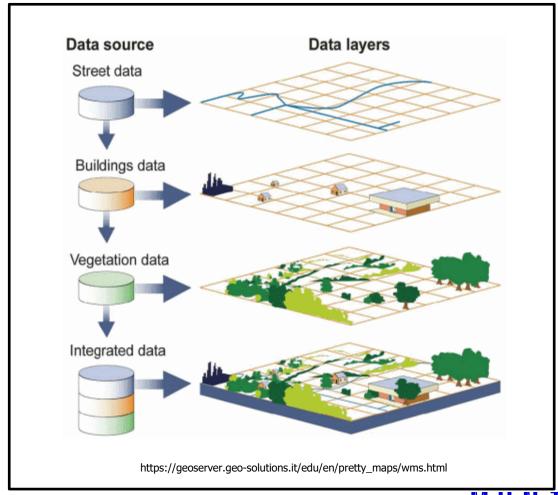
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- ✓ Jewish tradition
- √ Greek tradition
- √ (Roman tradition)

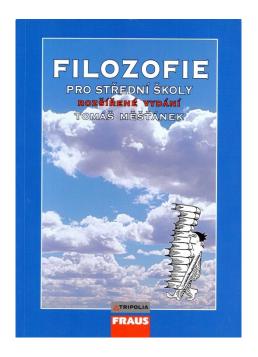


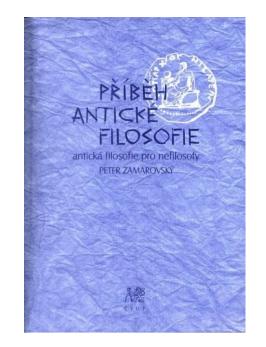
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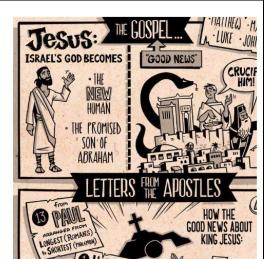


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**Read Scripture: New Testament** 



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26551.134421..134886...0.0..0.86.1723.24...2..1....1..gws-wiz-img.....0j0i67j0i10j0i30j0i8i30.uXg6NmHqY2!#imgrc=rirNmTEakgHBq M:

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