

Simonedes (500bc)

• First person to point out the importance of organization and memory.

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# Socrates (460-399bc)

- Quote "One thing only I know, and that is I know nothing."
- Philosophy begins when one learns to doubt - particularly one's cherished beliefs.
- There is no real philosophy until the mind begins to examine itself.
   "Know Thyself"
- · Early philosopher

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# Developed a Questioning Style

- Demanded
  - · Accurate Definitions,
  - Clear Thinking
  - · Exact Analysis
- Ultimately was called The Socratic Method

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# Hippocrates (460bc)

- · Considered the Father of Medicine
- · Developed a new method of inquiry.
  - · Careful observation.
  - The collection and interpretation of facts.
- The method could be incorporated into physical, mental, and emotional reactions of individuals.
- Was a major advance over faith in magic, superstition, supernatural powers, etc.

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# Hippocrates (460bc)

 Pioneered the application of applying systematic observation of facts to the study of human nature and experience.

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Was a Very Knowledgeable Physician for His Time.

- · Used detailed case histories.
- · Dissected dead bodies.
- Used dream analysis to analyze emotional disorders.
- Developed the Hippocratic oath which set high standards for physicians.

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### Plato (427-437bc)

- Was a Nativist.
- Believed individuals had innate knowledge.
- Teach individuals by using the Socratic method -- bring out innate ideas by asking the right questions.
- Everything was in there. All you have to do is ask the right questions.

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# Knowledge exists in two worlds

- World of Phenomena (sensory world)
   But they are like shadows and we can't contact them directly.
- 2. World of Forms
  - Are external ideas inherent in every person.
  - This world was unchanging
  - Was external and was known through reasoning (NOT THROUGH SENSORY EXPERIENCE)

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# Knowledge exists in two worlds

- Thus, knowledge was the possession of truth.
- But knowledge relied on reasoning not sensory experience.
- The brain is the seat of perception.

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# Aristotle (384-322bc)

- · Disagreed with Plato
  - All knowledge comes from the senses and through experience.
  - The mind is like a blank writing tablet -Tabula Rasa.
  - Knowledge should be based on observations of the external world.
- · Anticipated two laws of learning.

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# Law of Contiguity

- If two things are touching in space and time, one will bring the other to mind
- · Same as the Law of Association.

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# Law of Similarity and Contrast

- If two things are similar, one will bring the other to mind.
- If two things are opposite, one will bring the other to mind.

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#### Other Items

- Agreed with Hippocrates that mental illnesses come from physical causes.
- Disagreed with Plato. The Heart (not the brain) was the main organ of sensory experience.
- The brain was to reduce heat for the body. (Error lasted 1500 years.)

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#### Roman Empire

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#### Galen 129-199

- Most prolific and influential medical author after Hippocrates.
- Used a strong experimental approach.
- Writings became dominant, authoritative sources on biology, psychology, and medicine throughout the middle ages.
- · Some findings are still in use today.
- Key for Galen:

Scientific investigation is the way to analyze things.

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#### Contributions

- Recapitulated the principle discoveries of Hippocrates.
- Experimented extensively on animals (monkeys).
- Described muscles of the eyes, jaw, head, etc.
- Assigned the sensory nerves of the brain.
- Described in detail parts of animal brains.
- Asserted that arteries are filled with blood not air as others had.
- · But did not believe the heart was a muscle.
- Diagnosed cases of Tuberculosis.

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# Clinical Contributions

 Attributed mental illnesses to both physical and psychological factors such as alcoholism, brain injuries, and shocking life experiences.

Quintilian

• Advocated theories of learning that have been implemented in many schools.

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# **Educational Methods Should**

- 1. Emphasize logical reasoning from premises to conclusions.
- 2. Include systematic repetition and recall of facts (no new or fuzzy math).
- 3. Mastery of subject matter from simple to complex elements.
- Provide rewards such as praise for intellectual achievements.

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# **Educational Methods Should**

- 5. Practice free self-expression.
- 6. Adaptation of instruction to the interests and differing capacities of pupils.

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# Roman Empire Begins to Decline

Rise in Christianity

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# Augustine 354-430

- Believed there was a distinction between the sensory world and the world of forms.
- · However, also embraced Christianity.
- Developed Neoplatoism to reconcile the differences.

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### Result

- Changed Plato's ideas <u>subtly.</u>
- Distinguished between a
  - 1) Sensory World) known through the sensory organs.
  - Intelligible World (Mind) known through the soul.

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Small, but Very Important Step.

• Plato

Ultimate truth is found through reasoning.

• Augustine

Ultimate truth found through faith.

Augustine

Augustine

Augustine only wanted to know God and the Soul

Used faith to justify belief.

After Augustine, Neoplatoism colored every aspect of medieval thinking.

Everything was part of God's world.

