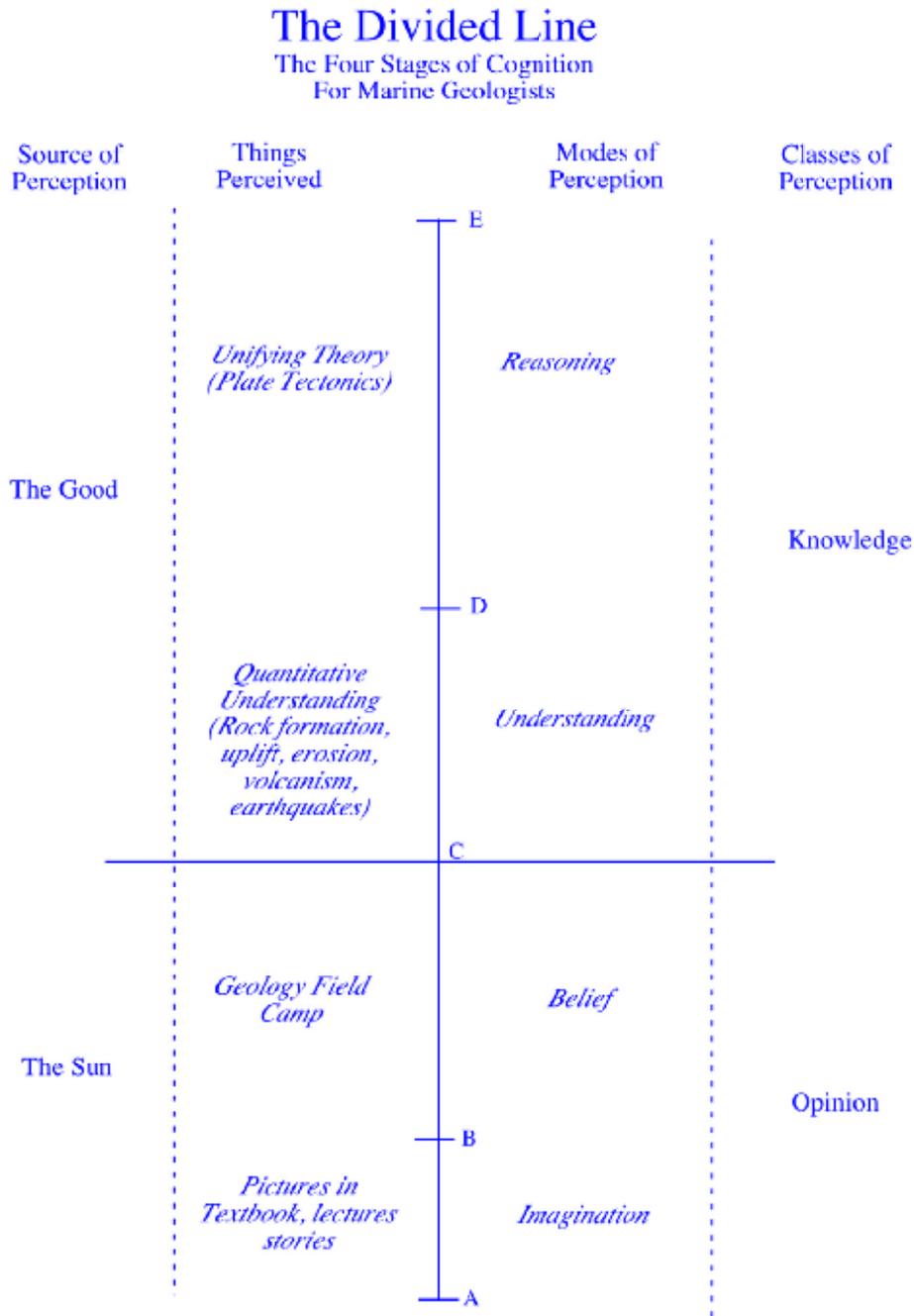


Republic Day 3

Discussion Topics.

Use The Divided Line and the Allegory of the Cave to discuss forms of knowledge as a prelude to science. Have students develop the hierarchy for a particular field of study, or 'form' of unifying knowledge.



Key Points-

1. Why mathematics in Plato's view? To remove the ambiguity based on perception of the senses. It explains the 'form' of material stuff.
2. Why Philosophical dialectic? Because by combining abstract thought (gained from mathematics) and reasoning, a person should be able to arrive at true knowledge of the 'forms' based on the 'good' (I translate for science as unifying theories like Evolution based on Natural Selection, plate tectonics, quantum mechanics: don't bring in Heisenberg yet). In Plato's view this works for the underlying 'forms' of beauty, truth, justice, redness, not just explanations of the natural world.
3. Discuss our current education system based on Plato's model.
 - a. As children they will be exposed to math first, then compulsory physical training (grade school through high school)
 - b. At 20 years old, they begin philosophical training (college)
 - c. At 30 they are tested again and begin dialectic training (grad school). They are also required to do service back in the cave, in warfare, etc, to strengthen and further test them
 - d. At 50 years old, they may become a Philosopher-King, and be required to become a guardian for part of this time.
4. Book Ten, the key is the Story of Er. Have students describe his story (good luck if they have kept up with Plato to this point).
 - a. Why would a guardian ever want to become a guardian if they don't get the perks of the other classes (money, food, sex, drink, honor)?
 - b. Above and beyond the arguments made for leading a just life, the Story of Er explains that in death, guardians (truly just wise men) will be given 1000 years of the good life before choosing their next reincarnation. Unjust men get 1000 years (or more) of hell, literally.
 - c. Brings up the topic of reincarnation; the idea that there is an afterlife based on deeds in this world; and ties back into Odysseus choosing the life of a simple, common man, perhaps making a statement about Plato's view of Homer, epic poetry, etc.

Assignment for understanding the Allegory of the Cave:

Have students create their own work of art that best exemplifies their understanding of the Allegory of the Cave. (This is not my original idea, I think someone came up with this last time, but it worked pretty well with my group). I had computer graphics, paintings and sketches, 3-D work, and photography used last time. If nothing else, it makes them become engaged with arguably the key idea in the Republic.

Science and Nature

The readings for this portion of science and nature provide a good historical framework for our development of scientific thought. I am providing a short powerpoint via email that I have used in Introductory Environmental Science courses. As a simple assignment, the material plays out well as a timeline of who did what when. It is also ripe for Jeopardy treatment. In addition however, there are some key points. I take this section as a chance to explain science to non-science students, and to point out that it works remarkably well at answering many (but not all) questions about the world.

Some key points/discussion topics.

1. The early Greeks were the first to try to explain natural phenomena without resorting to myths/gods.
2. It was still, however, an attempt to arrive at a better understanding of the 'divine', which stayed with us until the scientific revolution.
3. Aristotle (who we will read next) developed the four causes used to explain things.
 - a. Material what is it made of?
 - b. Efficient what processes are involved?
 - c. Formal what is the plan or design of the thing?
 - d. Final what is its ultimate purpose?
4. During the Middle Ages, the Great Chain of Being placed all things in a hierarchy with humans near the top, closer to God. Based on Plato and

Aristotle, this idea essentially said that we have the answers already, lets investigate to better understand how our observations fit this 'divine beauty'.

5. Francis Bacon, paraphrased: To explain natural phenomenon as part of the divine scheme is of no practical value, but if it could lead to a power over nature (relief of human misery)?
6. Science is a method of gaining knowledge, technology is the application of that knowledge
7. The Design Argument: If you figure out how something works, it leads to understanding about its purpose and value. This is an attempt to reconcile science and religion.
 - a. Start with the statement that the Egyptian pyramids are so monumental that they could not have been created without extra-terrestrial help.
 - b. Move on to the Intelligent Design ideas that are being pushed into science classes today (the idea that things as complex as a human eye, could never have evolved without some supreme designer at work).
 - c. A quote from A.G. Cairns Smith – 'We shouldn't expect to reason back from artillery and jet planes to the sticks and stones used by stone age men as weapons, so why try to do this with biological evolution'.
 - d. Discuss what should, or should not be taught in science, and why certain questions, topics, fall outside of science. Relate back to Plato, and his philosophical dialectic as a method for knowing ultimate truths, or 'forms'.