

Background for Descartes (1596-1650)

I. Four dogmas of the medieval world view

D1) The heavens are constant, and the Earth is at the center of the universe.

D2) Causes are (partially) explained teleologically, by purposes.

E.g. Objects tend to fall to the Earth because of their natural tendency toward the center.

D3) The heavens contain starry perfect spheres (stars and planets) which revolve in perfect circles around the Earth.

D4) There are two kinds of motion. On earth motion is linear, in the heavens it is circular.

The first two of these come from Aristotle (384-322 BC).

The third and fourth come from Ptolemy (2nd century AD), who saw the sky as a roof on the Earth.

Note that the medieval view does not include the opinion that the earth is flat, though that may have been a common superstition.

Also note how these views cohere with a Biblical Judeo-Christian world view.

II. The New Science

In the 15th century, a new star is discovered, against D1.

Copernicus (1473-1543) hypothesized that earth was not stable, and that it underwent retrograde motion, against D1.

Brahe (1536 - 1601) discovered that planets move in ellipses, against D1 and D3.

Kepler (1571-1630) urged heliocentrism, against D1.

Galileo (1564-1642) suffered under the Inquisition in 1633 for supporting Kepler's heliocentrism.

He also argued that there was one type of motion for all bodies, not one on earth and one in sky, against D4.

This, gravity, is a unifying hypothesis, which explains all motion, against D2.

His discovery of Jupiter's moons meant that there was more than one center of motion, against D1.

And his discovery of bumps on moon is evidence against D3.

The Earth has lost its place in the center of the world, undermining the Church's view.

III. Direct attacks on religion

The Great Schism (1378-1417)

Henry VIII breaks with Rome, 1530.

Luther (1483-1546) led the Reformation, against corruption.

Calvin (1509-1564) and the Protestant Work Ethic opposed the hierarchical structure of the Catholic Church in favor of a more direct relationship between God and man.

There was a general rise of the individual against (Earthly) central authority, in the guise of humanism, and natural reason.

Rise of skepticism, due in part to the loss of certainty of the Earth's place.

Also, due to the problem of Scriptural circularity:

1) Why believe that God exists? - Because it says so in the Bible.

2) Why believe that the Bible is true? - Because God wrote it.

Compare this to: Why believe that the crystal ball tells the truth? - Because the crystal ball says that you should.

IV. Descartes

He published **Discourse on Method**, in French, in 1637.

It is a popular and easy introduction to the Meditations.

The **Meditations** was published in Latin, in 1641, with Objections and Replies.