

THE SCIENTIFIC REVOLUTION

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Humanities 324

Introduction: Humanities 324 and the “modern” world.....

QUESTIONS: What is the scientific revolution?

What is “modern” science?

1. Modern Scientists:

Copernicus (1473-1543)

Brahe (1546-1601)

Kepler (1571-1630)

Galileo (1564-1642)

2. Modern science is....?

***An international achievement: improved empiricism, mathematics (back to Baghdad), and THEORY**

***A critique of the traditional – medieval/ancient -- approach of ARISTOTLE and Saint THOMAS AQUINAS: See Francis Bacon (1561-1626) and the “Idols.”**

***understanding CAUSALITY better: the scientific method versus the teleological approach**

NEWTON (1642-1727)

Conclusion:

The limits of the Renaissance and the need for.....

“ENLIGHTENMENT”

1) *“When nothing remains [in subtraction], put down a small circle so that place be not empty, but the circle must occupy it.”*

(Al-Khowarizmi, “Book of Addition and Subtraction According to Hindu Calculation”)

2) *“the slave is entirely without the faculty of deliberation; the female indeed possesses it, but in a form which remains inconclusive” (Aristotle, The Politics).*

3) *“Again, whatever is in accord with nature is best, for in all things nature does what is best....Among bees there is one king bee, and in the whole universe there in One God...” (St. Thomas Aquinas, “On Kingship”).*

4) *“The heavens tell out the glory of God, the vault of heaven reveals his handiwork...In them a tent is fixed for the sun, ...His rising is a one end of the heavens, his circuit touches their farthest ends...” (“Psalms 19, 1-5).*

5) *“God, the Lord God, has spoken and summoned the world from the rising to the setting sun.” (“Psalms 50, 1).*

6) *“We must not...scorn a man who is not naturally endowed for noble deeds...” (Alberti, “On the Family” 1443).*

7) *“For the vulgar are always taken by appearances and by results, and the world is made up of the vulgar, the few only finding room when the many have no longer ground to stand on...” (Machiavelli, The Prince, Chp. XVIII, 1513).*

8) *“Our Courtier having once become more than fairly expert in these exercises [arms, wrestling, hunting, swimming, tennis, horsemanship], I think he should leave the others on one side: such as turning somersaults, ropewalking,, and the like, which ...little befit a gentleman.” (Castiglione, “Book of the Courtier” 1518).*
