

# Science, Religion, and Fundamentalism

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Osher Course

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# Science and Religion

- Science makes the world explicable and predictable.
- This is one of the functions of religion.
- There is every reason for science to be part of religion.



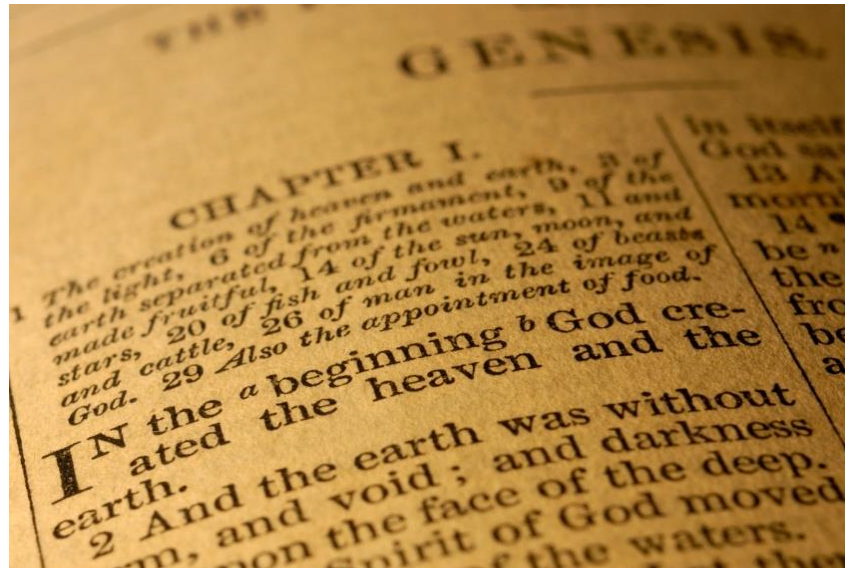
# Science and Religion

- Science makes the world explicable and predictable.
- This is one of the functions of religion.
- There is every reason for science to be part of religion.
- Historically, it has been (until mid-19<sup>th</sup> c).
- We have reinvented this history.



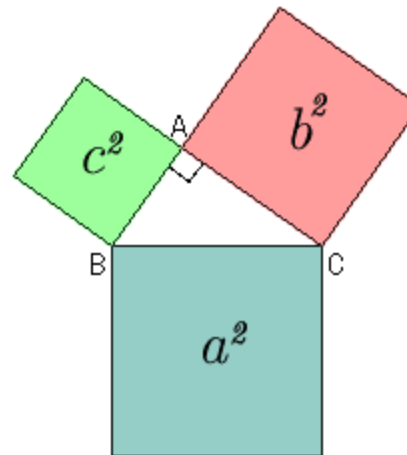
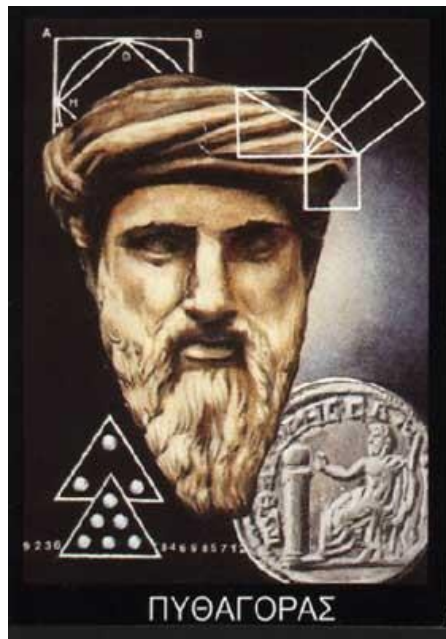
# Science and Religion

- There has been dispute over interpretation of scripture.
- But this is not due to science.
- It is a perennial phenomenon.



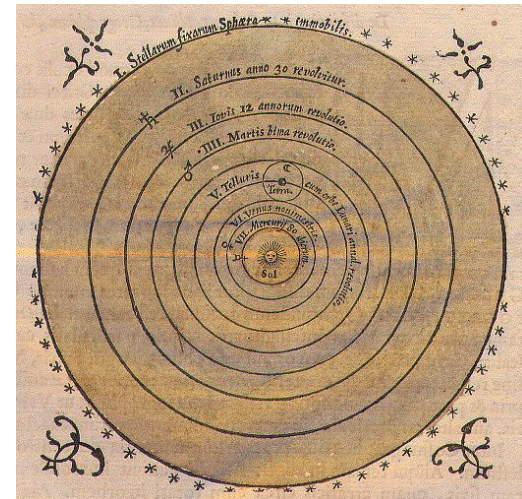
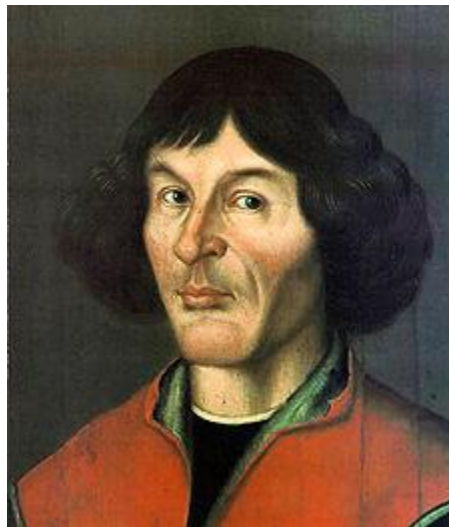
# Science and Religion

- Pythagoras (570-495 bce)
- First theorem in world history.
- Beginning of Western mathematics.
- Reassurance that humans have immortal souls.



# Science and Religion

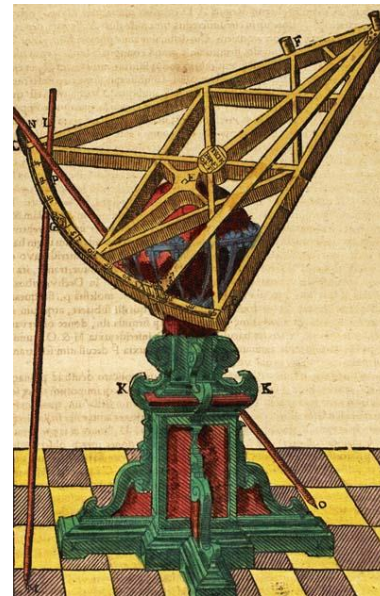
- Nicolaus Copernicus (1473-1543)
- Saw the universe as reflecting the glory of the Creator.
- Believed that Aristotelian cosmology did not do it justice.
  - His heliocentric system reflected “the movements of the world machine, created for our sake by the best and most systematic Artisan of all.”
- The Pope and several Catholic bishops urged him to publish his ideas.





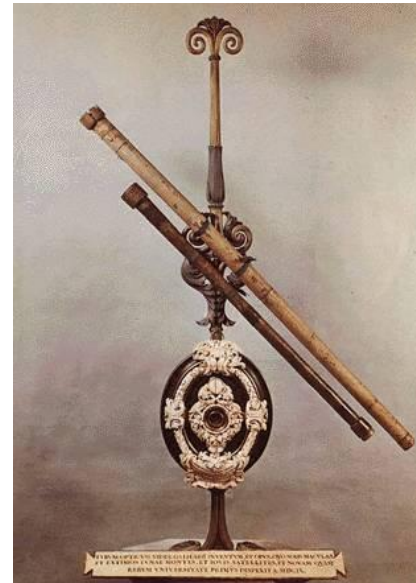
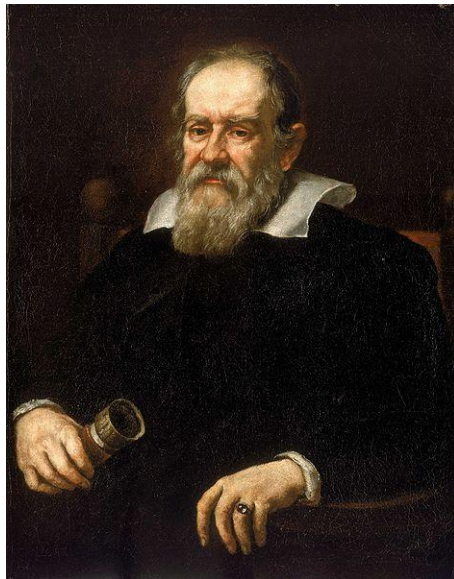
# Science and Religion

- Tycho Brahe (1546-1601)
- Insisted that science harmonize with theology.
- Rejected Copernican view partly on Biblical grounds.



# Science and Religion

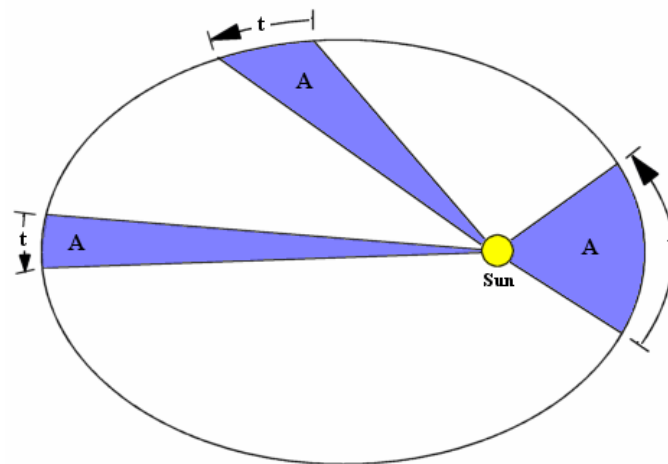
- Galileo Galilei (1564-1642)
- Church was interested in science.
- Pope encouraged Galileo's research, but Galileo insulted him in *Dialogue Concerning the Two Chief World Systems*.





# Science and Religion

- Johannes Kepler (1571-1630)
- Devout Lutheran, saw evidence of the Trinity in the heavens.
- His laws of planetary motion are inspired by desire to find divine order in the universe.



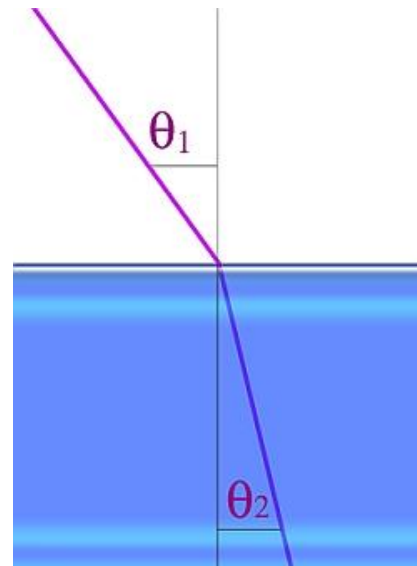
# Science and Religion

- Rene Descartes (1596-1650)
- His science was part of a general effort to find a rational foundation for religion and philosophy.
  - His work was inspired by three dreams he had on night of the Vigil of Feast of St. Martin, which he interpreted as messages from God.
- His proof of the existence of God is climax of *Meditations*.



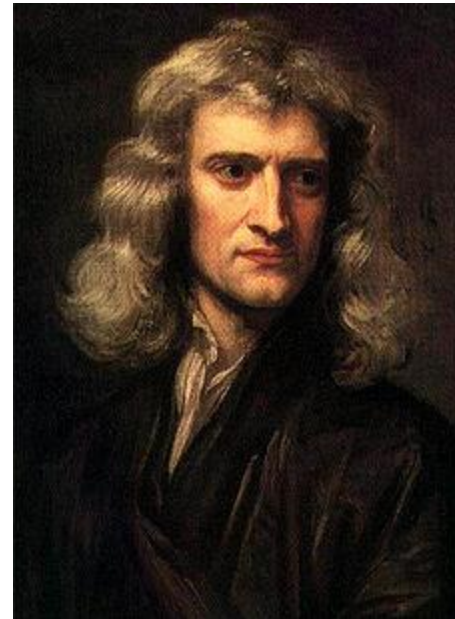
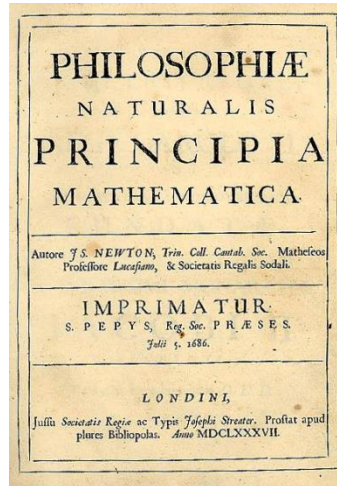
# Science and Religion

- Gottfried Leibniz (1646-1716)
- His explanatory principle is that universe must be optimal because it is designed by God to be the best of all possible worlds.
- For example, law of refraction.



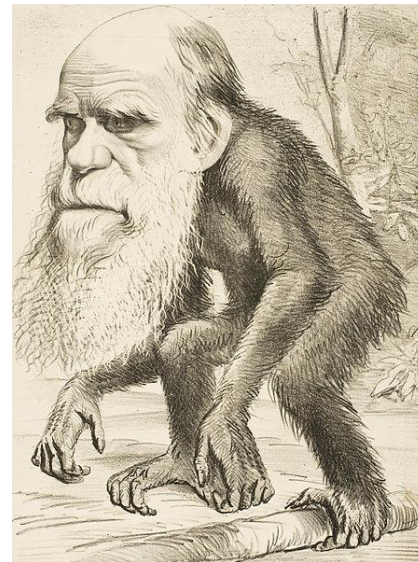
# Science and Religion

- Isaac Newton (1642-1727)
- Wrote more on religion than on science.
- Saw divine intelligence in nature.
- Believed that his *Principia* supported belief in God.
  - “I had an eye upon such Principles as might work with considering men for the belief of a Deity.”



# Science and Religion

- Charles Darwin (1809-1882)
- Described himself as agnostic.
- Evolution of species was much-discussed theory long before Darwin, promoted by numerous clerics.
- Darwin's theory of natural selection was embraced by several religious figures.
  - Objections were generally not Biblical.
- We have reinterpreted this era.



# Science and Religion

- When did we forget the connection between science and religion?
- As two phenomena developed:
- Science as a profession
  - “Natural philosophy” became “science” in 19<sup>th</sup> c.
  - “Scientists” (coined in 1833) became professionals by 20<sup>th</sup> c.
  - Secular priesthood.
- Rise of modern **fundamentalism**.





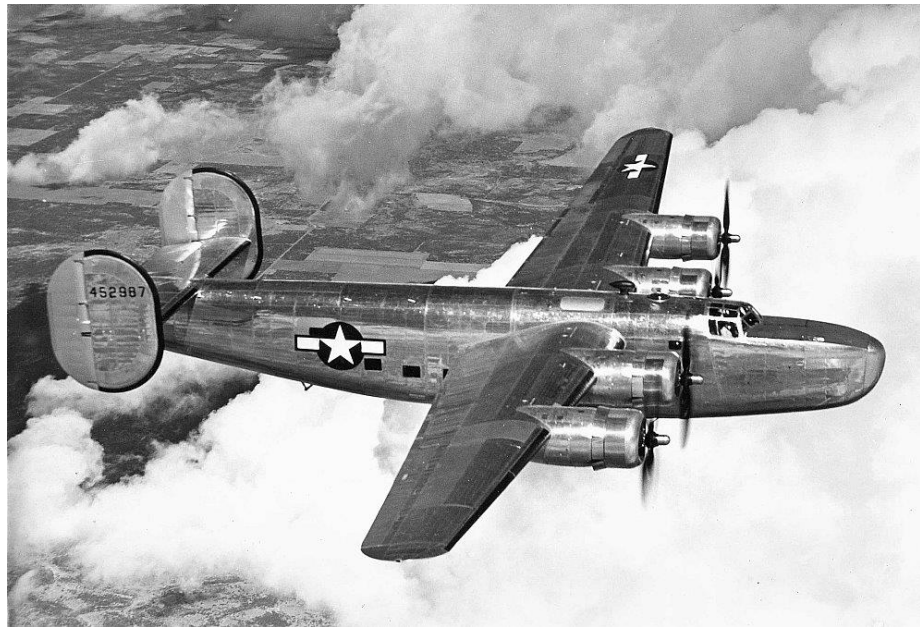
# Fundamentalism

- Origin of the term:
- Niagara Bible Conference (1876-1897).
- Set of books, *The Fundamentals* (1910).
- Emphasized dispensationalism.
  - Eschatology: Jesus' second coming and the rapture.
  - Based on literal reading of book of Revelation.
- This is not unusual for revitalization cults.
  - For example, cargo cults.



# Fundamentalism

- Cargo cults – New Guinea, Melanesia, Micronesia, and elsewhere.
  - Began with colonialism, reached peak during and after WW II.
  - Reaction to social and technological change brought by Western colonials and military.
- Westerners brought cargo to soldiers in planes.
- Natives thought cargo was intended for them.



# Fundamentalism

- Cargo planes signaled return of their ancestors, who brought cargo as gifts.
- Planes carried ancestors in suspended animation.
  - They would resurrect after landing.
- Natives built mock-up airports to attract planes.



# Fundamentalism

- Still active – John Frum cult (Vanuatu)
  - John Frum is apparently an American serviceman (John from America).
- John Frum will return on February 15 (year?) to bring the kind of wealth that Westerners enjoy.
  - According to Chief Isaak Wan Nikiau, leader of cult, John Frum is “our God, our Jesus” and will eventually return.



John Frum day  
parade

# Fundamentalism

- Fundamentalism is a reaction to rapid social and technological change in late 19<sup>th</sup> c. United States.
  - Industrialization, urbanization, massive immigration.



Homestead, PA, 1890s

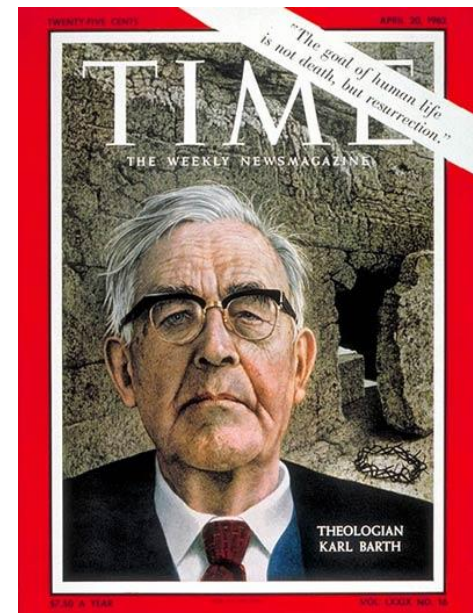
# Fundamentalism

- Fundamentalism is associated with literal reading of scripture.
  - “Return to fundamentals.”
  - This implies a rejection of “scientific worldview.”
- We distance ourselves from fundamentalism by distinguishing science and religion.



# Fundamentalism

- Fundamentalism is associated with literal reading of scripture.
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- We distance ourselves from fundamentalism by distinguishing science and religion.
- Rise of “neo-orthodoxy.”
  - Karl Barth, Reinhold Niebuhr, Jacques Ellul
  - Religion and science should be separated.
  - They address different problems
- So we reinvent the history of science.



# Fundamentalism

- Islamic Fundamentalism:
- Best-known form is Wahhabism.
  - Founded by Muhammad bin Abd al-Wahhab (1703-1791)
- Rough parallel with Puritanism in England
  - Effort to purify Islam of pagan influences by returning to the fundamentals.
  - Strict interpretation of scripture.



# Fundamentalism

- Al-Wahhab joined forces with Muhammad ibn Saud to form first Saudi state, 1744.
- Resurgence of Wahhabism among Saudis in 1920s.
  - Reaction to arrival of modernism after WW I.
  - Abdul-Aziz bin Saud established modern Saudi state in 1932 with assistance from Wahhabist Bedouins.
- Wahhabism remains dominant in Saudi Arabia today.
  - Source of strict observances there.



# Fundamentalism

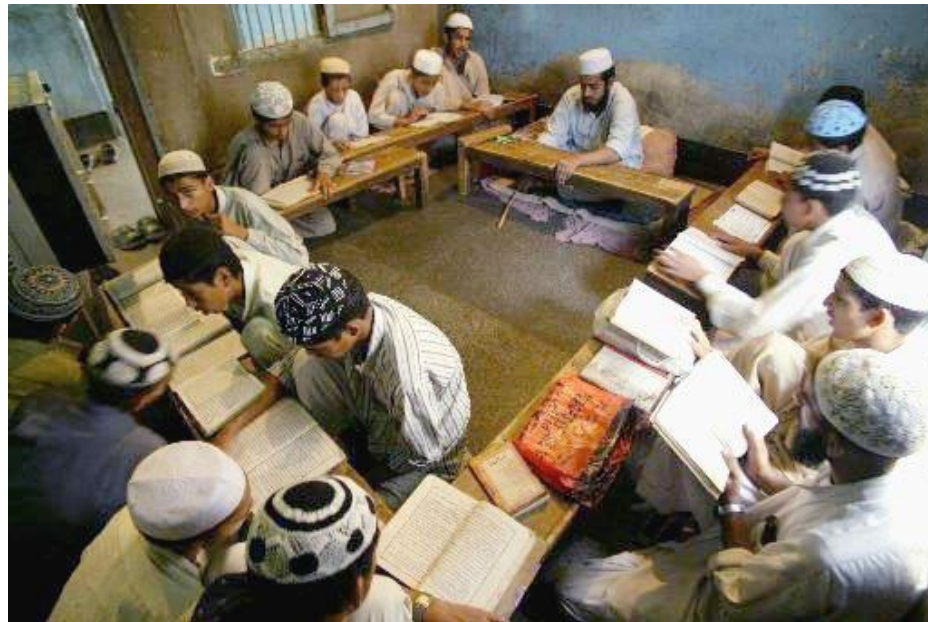
- Taliban
  - “Islamic Calvinists”
  - Influenced by Deobandi fundamentalism in India (19<sup>th</sup> c.)
- Reaction to instability in Afghanistan after Soviets left.
  - Return to traditional lifestyle of Pashtun (Pashtunwali)
  - Fiercely independent mountain people.

Pashtun  
village council  
(*hujra*)



# Fundamentalism

- Saudi support for Taliban induced Deobandi schools to emphasize Wahhabi ideas.
  - Result: very strict interpretation of Sharia law.





# Fundamentalism

- Why fundamentalist extremism?
- Heavy reliance on doctrine, ideology, and proof-texting as coping mechanisms.
- Can create an alternate reality.





# Fundamentalism

- Psychological basis: a stage of development
- Lawrence Kohlberg's developmental stages
  - **Avoid punishment** (early childhood)
  - **Self interest** (late childhood)
  - **Social conformity** (early teens)
  - **Law and order, fundamentalism** (college age)
  - **Social contract, tolerance** (mature adulthood)
  - **Universal principles, wisdom** (60+, if ever)



# Fundamentalism

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  - Revitalization cults
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- Why fundamentalism today?
- Rapid change, cultural disruption
  - Revitalization cults
  - Return to fundamentals
- Reliance on ideology
  - Since early 20<sup>th</sup> century
  - Marxism, Communism, Neoliberalism (“market fundamentalism”)

# Fundamentalism

- Reaction to fragmentation of religious functions.
  - Explanation – Secular science
  - Literature – Secular entertainment media
  - Predictability – Technology and social systems
  - Support – Secular medicine, psychology and self-help

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- Reaction to fragmentation of religious functions.
  - Explanation – Secular science
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  - Support – Secular medicine, psychology and self-help
- An effort to put it back together –  
to re-connect (re-ligion).

