

Chapter 13

The Relationship between Science & Religion

Timeline

70,000 BCE – evidence of proto-religious behaviors

30,000 BCE – evidence of religious practices

600 BCE – rise of Greek philosophy and proto-scientific thought

1700 CE – Age of Enlightenment and rise of modern scientific thought

“Culture War”

- Compared to religious thought, science is very new to the human species
- Today many insist that there exists a “culture war” between scientific skepticism and religion



Operational Definitions

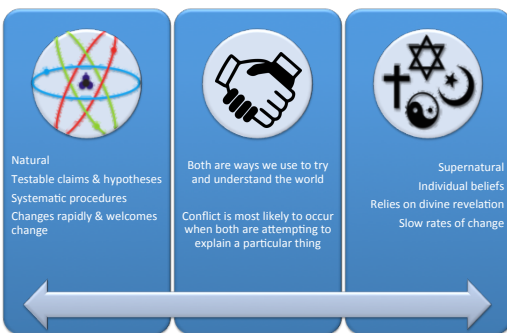
- Science is “a set of methods designed to describe and interpret observed or inferred phenomena, past or present, and aimed at building a testable body of knowledge open to rejection or confirmation”
- Focuses on empiricism, naturalism, and changes in response to new information

Shermer (2002)

Operational Definitions

- Religious definitions are a bit trickier, but tend to emphasize three parts
 - Substantive (what it concerns – the sacred or supernatural)
 - Functional (what you do as a part of your religion)
 - Personal (an individual’s belief, emotion, and behavior tied to that religion)

Science vs. Religion

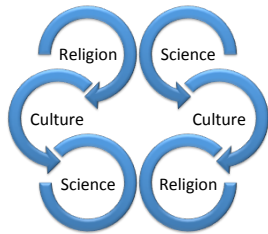


Operational Definitions

- Culture typically consists of the behaviors, values, beliefs, and worldview shared by a group of people and which are transmitted from generation to generation
- Greatly influences basic assumptions about human relationships, nature, activity, and how one views reality

Mutual Influences

- The interplay between these is highly complex *and* highly influential on people's lives



Relationships between Science & Religion

- How a culture views this relationship has massive social, political, educational, and personal implications
- Incompatibility and conflict
- Independence and contrast
- Dialogue and contact
- Integration and confirmation

Incompatibility & Conflict

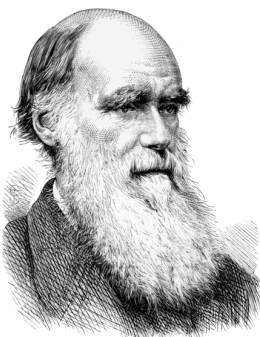
- This view posits that S&R are inherently at odds with one another and are incompatible
- Emphasizes the sharp contrast between supernatural and naturalistic worldviews



Independence & Contrast

- Sees religion and science as dealing with fundamentally different domains or aspects of the universe and human existence
- Gould's "Non-overlapping magisteria" (NOMA)





"Science has nothing to do with Christ, except insofar as the habit of scientific research makes a man cautious in admitting evidence."

Charles Darwin, 1879

Dialogue and Contact

- “Science and religion” movement says that the two should work with each other
- Most proponents are either religious scientists or scientifically-sympathetic religionists
- *Not* “theistic science”



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Integration & Confirmation

- Focuses on the very complex but generally peaceful relationship between science and religion
- Emphasizes the historical relationship between different religions and the search for truth via empirical investigation

Integration & Confirmation

- Stresses that most scientific work has been undertaken by the religious communities of that time
- Conflicts tend to arise only on “ultimate questions”
 - Origins of the universe and life
 - Purpose and meanings
 - What happens after one dies

Squeaky Wheel gets the Publicity

- Loudest voices tend to belong to the “incompatibility and conflict” model
- Dates back to Andrew White’s 1896 history of the conflict between science and Christianity
- White argued that there was a predictable pattern to the conflict

White’s Pattern

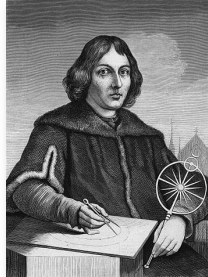
1. An individual or group proposes a new idea that conflicts with traditional religious doctrine or beliefs, but this tends to be ignored by the church.
2. The idea becomes increasingly accepted by others, spreading and gaining momentum.
3. The church condemns the idea, typically using passages from the Old and New Testament to justify why the new idea is wrong.
4. The idea gains more and more support from the public and noted intellectuals.

White’s Pattern

5. The church puts out a statement showing how the idea either attacks a fundamental principle of Christian belief or even tries to refute the underpinnings of the entire religion.
6. Support continues to grow among the public.
7. Churches and church members begin to ignore the idea, and subsequently may ignore the Biblical verses it used in step 3 to condemn the idea.
8. The church eventually incorporates the idea into their belief system, although this may take decades to centuries.

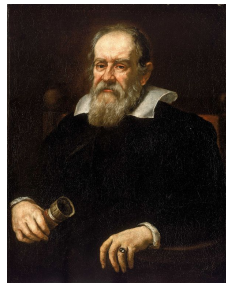
A Model Conflict

- Copernicus's 1543 publication of a heliocentric model directly challenged Catholic teachings
- Church denounced the idea as heretical, actively suppressed research on it



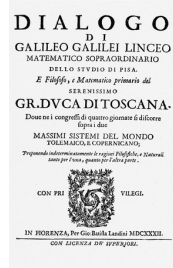
A Model Conflict

- The suppression of heliocentrism came to a head in 1610 with Galileo's discoveries
- Church responded with a formal decree "banning" the idea



A Model Conflict

- Despite being ordered to not teach, discuss, or write about heliocentrism, Galileo published his masterwork on it in 1632
- Led to banning of the book and sentence of life imprisonment for Galileo



A Model Conflict

- It wasn't until 1865 that the Catholic Church removed Copernicus' and Galileo's works from its banned list
- Only in 1992 did Pope John Paul II formally acknowledge the wrongs committed against Galileo and his ideas

Model or Not?

- The typical Galileo story, though, is highly edited from the truth of the matter
- For instance....
 - Copernicus and Galileo were both devout Christians and respected the church
 - Both wanted to integrate science with their theological beliefs

Model or Not?

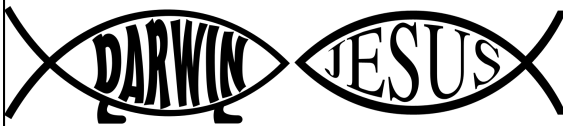
- Many actually see this as a conflict between more liberal and more conservative religious viewpoints, not between science and religion
- Prior to the 20th century, that was the most common 'conflict'
 - Religious scientist makes discoveries that they tried to integrate with their faith, sometimes successfully, sometimes not

Science Shifting Faith

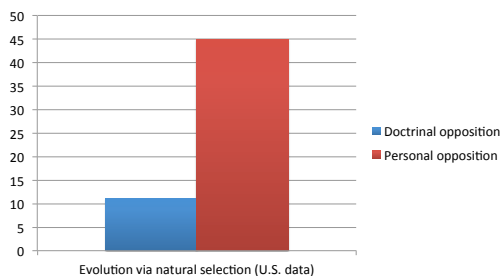
- Typically, new scientific discoveries caused people to shift their religious beliefs
 - Adam Sedgwick and other geologists
 - Charles Hodge’s theology
- Conflict is not the ‘default’ mode for science and religion in history, it turns out

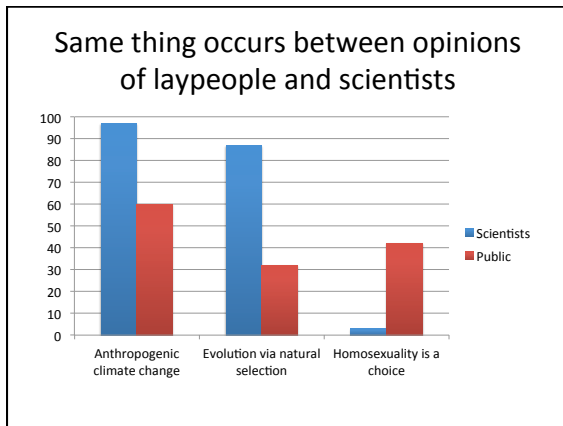
Modern Times

- Today, the most conflict between religious and scientific viewpoints centers around origins issues
 - Big Bang cosmological model
 - Evolution via natural selection



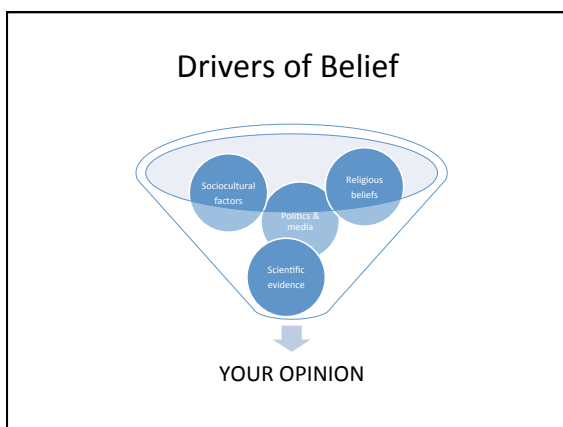
Personal and “official” religious beliefs don’t always match up





Science-Religion Gaps

- Tend to cluster around subjects where one's religion and culture heavily influence beliefs and when subjects are more tangible and immediate
- But there is not a monolithic opinion among the religious on these issues



Micro-Religions

- All religions are best understood as being situated in a particular time and place, as practiced by a certain group of people
- Religion is not a unitary construct, so people of even the same religion can have very different beliefs about science

Conclusions

- There are actually only a few areas where science and religion conflict today
- The religious do not all share the same beliefs and opinions when it comes to science
- The interactions are complex and nuanced, and not as simplistic as sometimes portrayed

