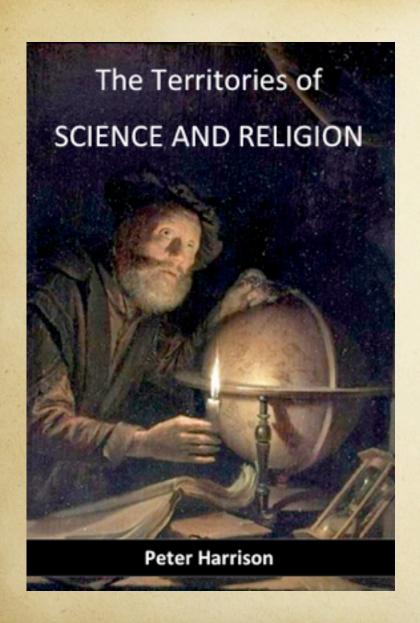


Friday, 12 September 14

## LECTURE 3: RELATING SCIENCE AND RELIGION

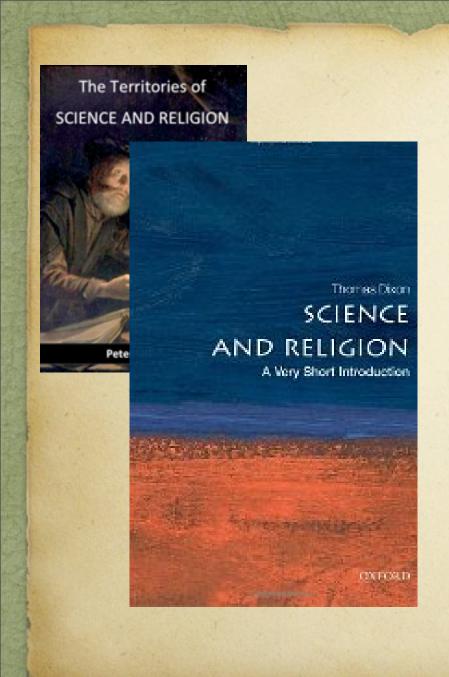
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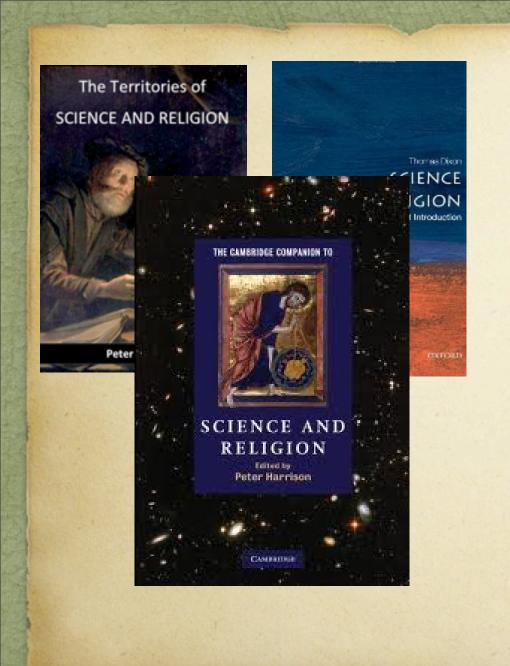
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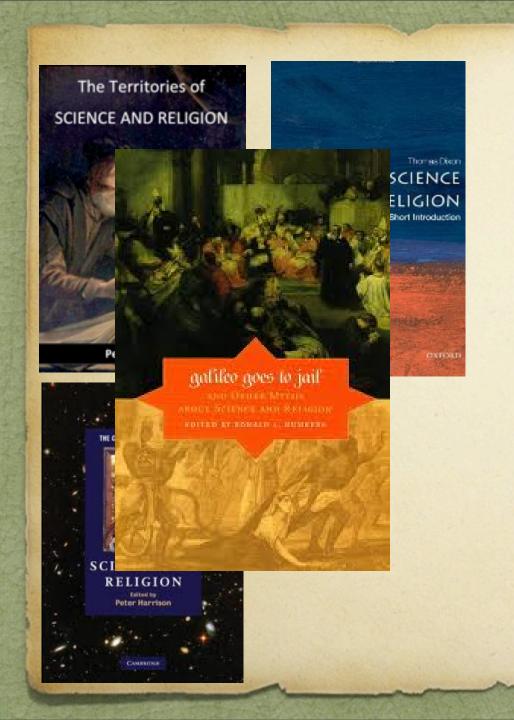
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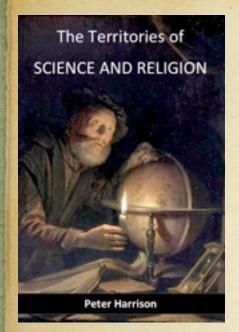
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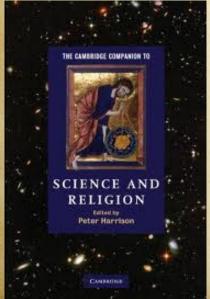


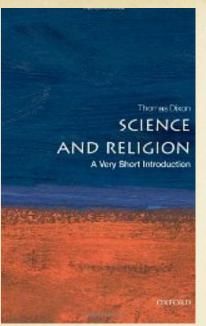
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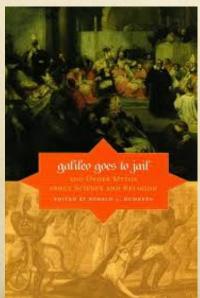
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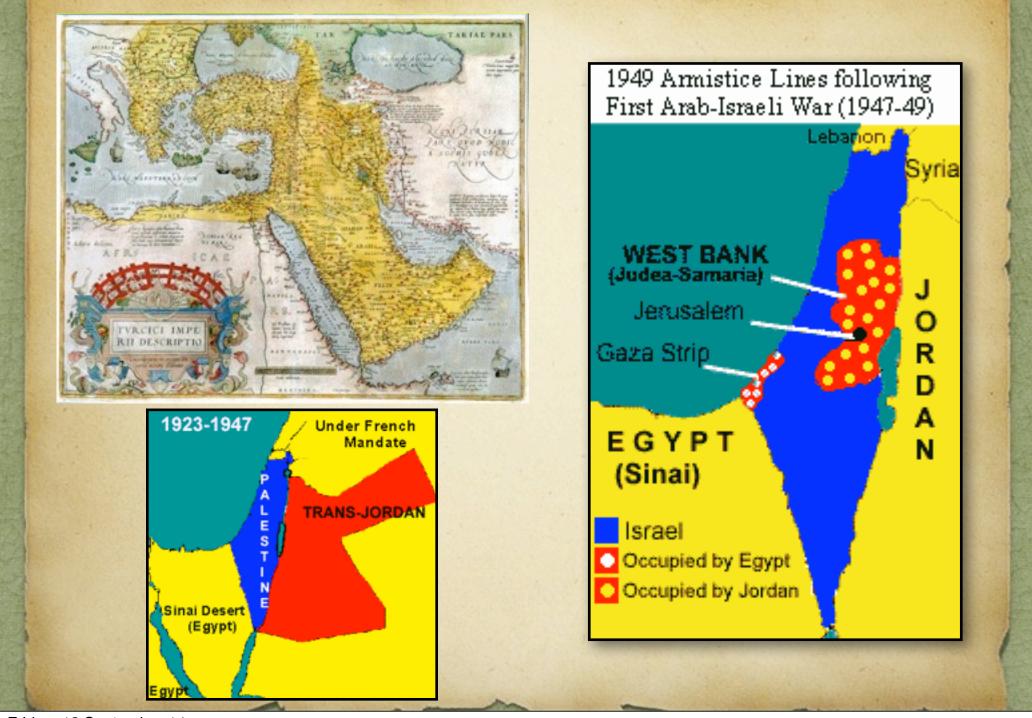




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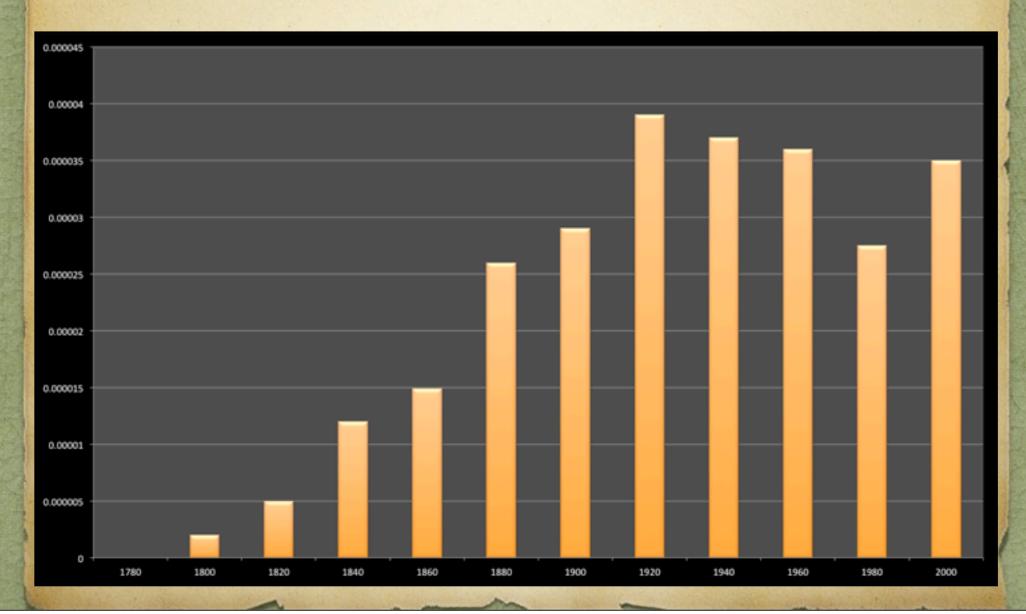
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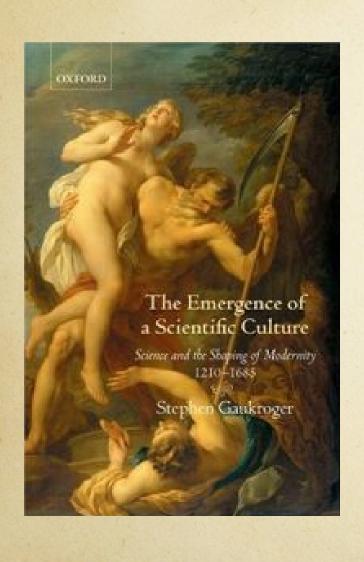


Friday, 12 September 14

## 'Science and Religion' in English Books, 1800-2000



Friday, 12 September 14



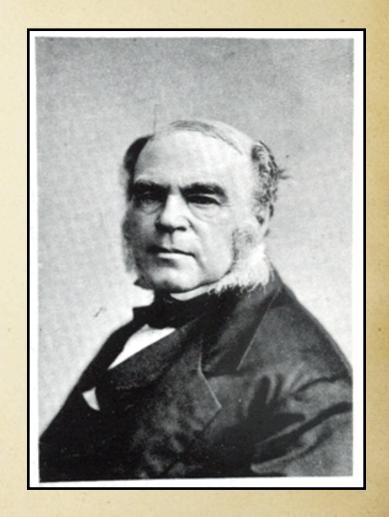
... a good part of the distinctive success at the level of legitimation and consolidation of the scientific enterprise in the earlymodern West, derives not from any separation of religion and natural philosophy, but rather from the fact that natural philosophy could be accommodated to projects in natural theology.

Stephen Gaukroger, *Emergence of a Scientific Culture* 

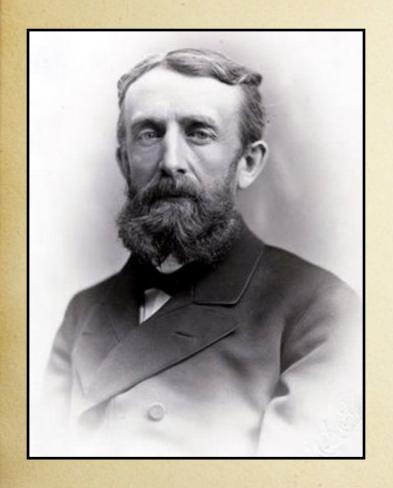
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'The history of science is no mere record of isolated discoveries; it is a narrative of the conflict of two contending powers....'



John Draper, History of the Conflict between Religion and Science (1874), vi

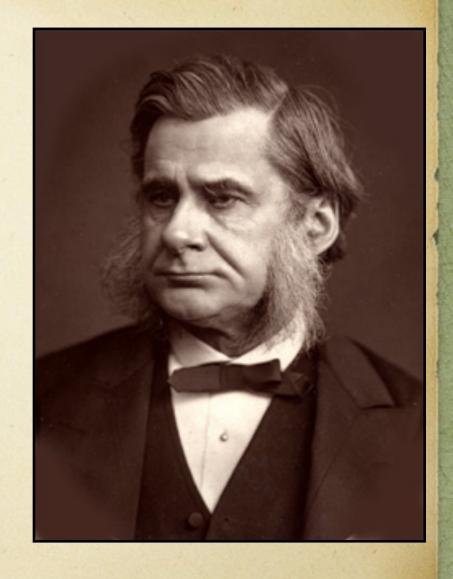


More and more I saw ... the conflict between two epochs in the evolution of human thought—the theological and the scientific.'

Andrew Dickson White, History of the Warfare of Science with Theology in Christendom (1896), ix

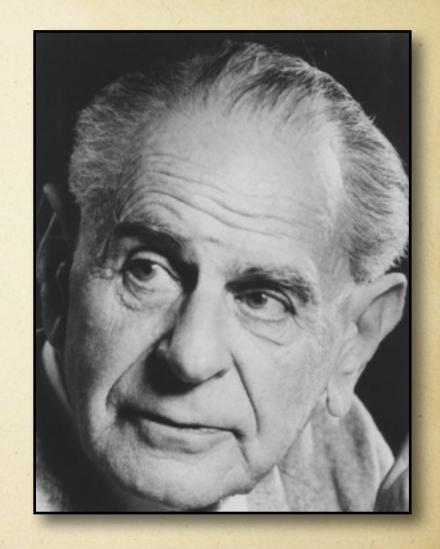
'Extinguished theologians lie about the cradle of every science as the strangled snakes beside that of Hercules; and history records that whenever science and orthodoxy have been fairly opposed, the latter has been forced to retire from the lists, bleeding and crushed if no annihilated; scotched, if not slain.'

T. H. Huxley, Review of the *Origin* in the *Westminster Review*, 1860.



The 'scientific tradition' was inaugurated by Thales and his immediate successors ... it died in the West when it was suppressed by 'a victorious and intolerant Christianity'. While science was 'missed and mourned during the Middle Ages', it was eventually revived during the Renaissance and 'found fulfilment in Newton'.

The Myth of the Framework (1994)

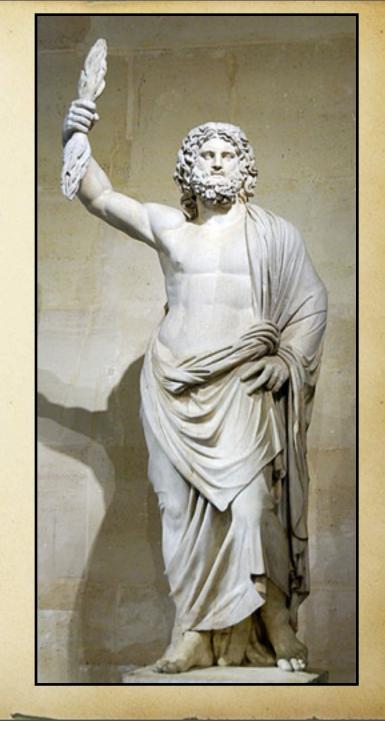


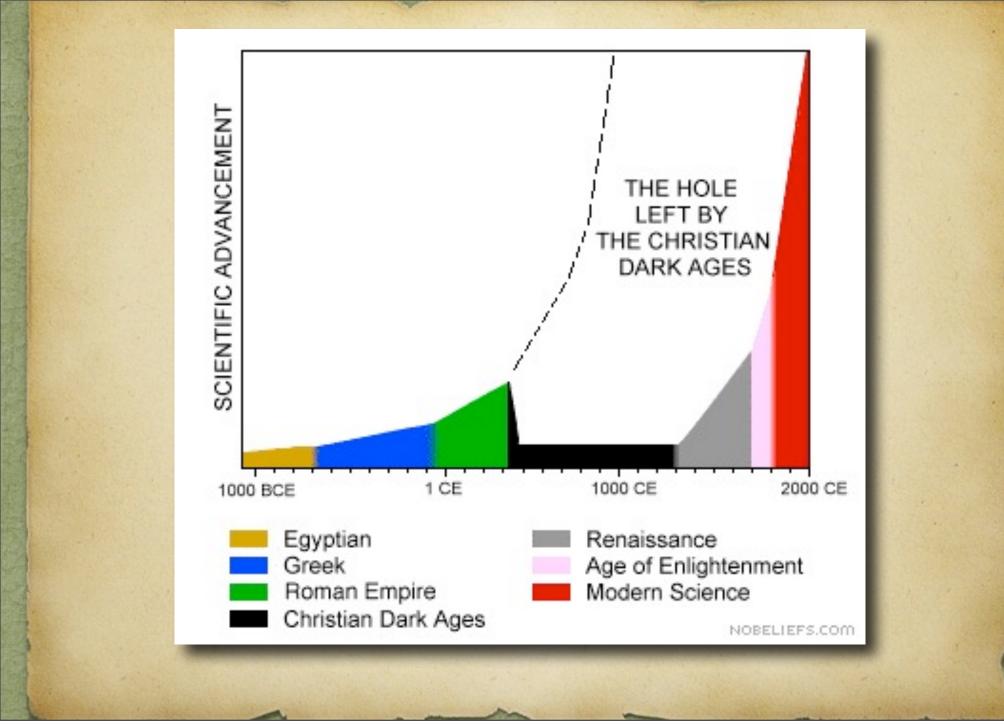
Karl Popper (1902-1994)

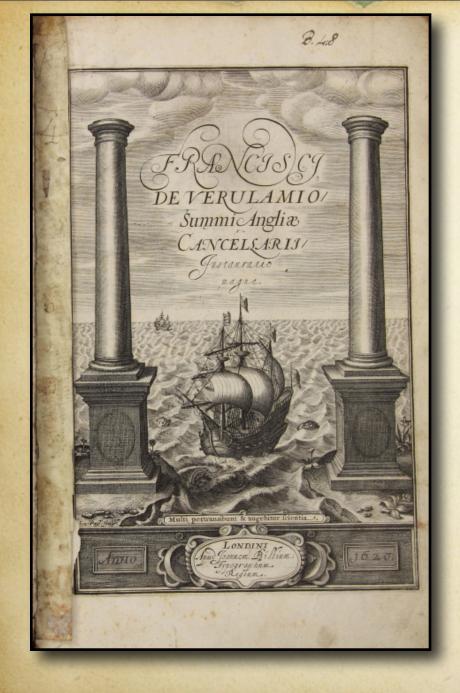
Religion was the first systematic attempt to explain the universe comprehensively....

Science was the second great attempt to explain the world. This time, explanations were cast in terms of impersonal forces and natural, physical processes rather than the activities of purposive, supernatural agents. When scientific explanations conflicted with religious explanations, religion invariably lost the battle.

Paul Davies, The Goldilocks Enigma (2006)







'in the age of ourselves and our fathers, when it pleased God to call the Church of Rome to account for their degenerate manners and ceremonies, and sundry doctrines obnoxious and framed to uphold the same abuses; at one and the same time it was ordained by the Divine Providence, that there should attend withal a renovation and a new spring of all other knowledges.'

Francis Bacon, Advancement of Learning (1605)

'Incredible darkness was upon the Western parts of Europe two hundred years ago... The revival of letters ... prepared the world for the Reformation of Religion and for the advancement of the sciences since.'

Cotton Mather, American Tears upon the Ruines of the Greek Churches (Boston, 1701).



'...the triumph of
Christianity had been the
signal for the complete
decadence of philosophy
and the sciences'

Sketch for a Historical Picture of the Progress of the Human Spirit (1795)



Marquis de Condorcet (1743-1794)

## LECTURE 3: RELATING SCIENCE AND RELIGION

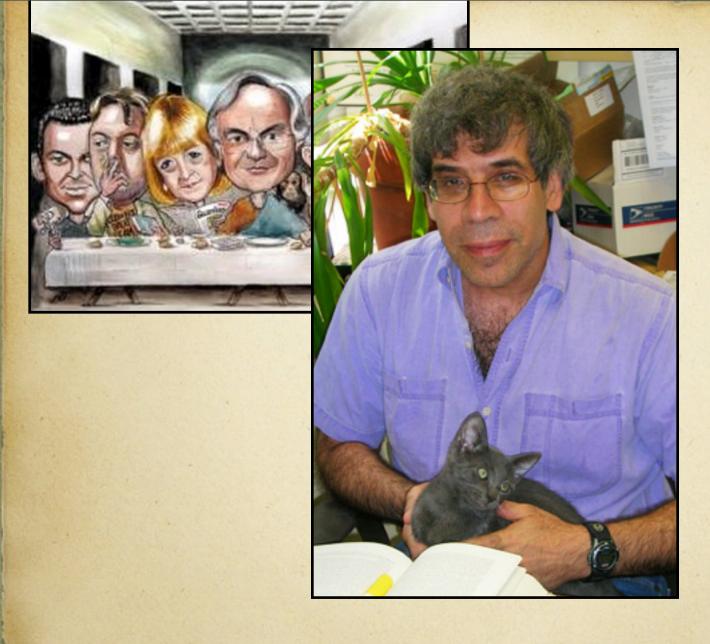
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## The 'New Atheists'



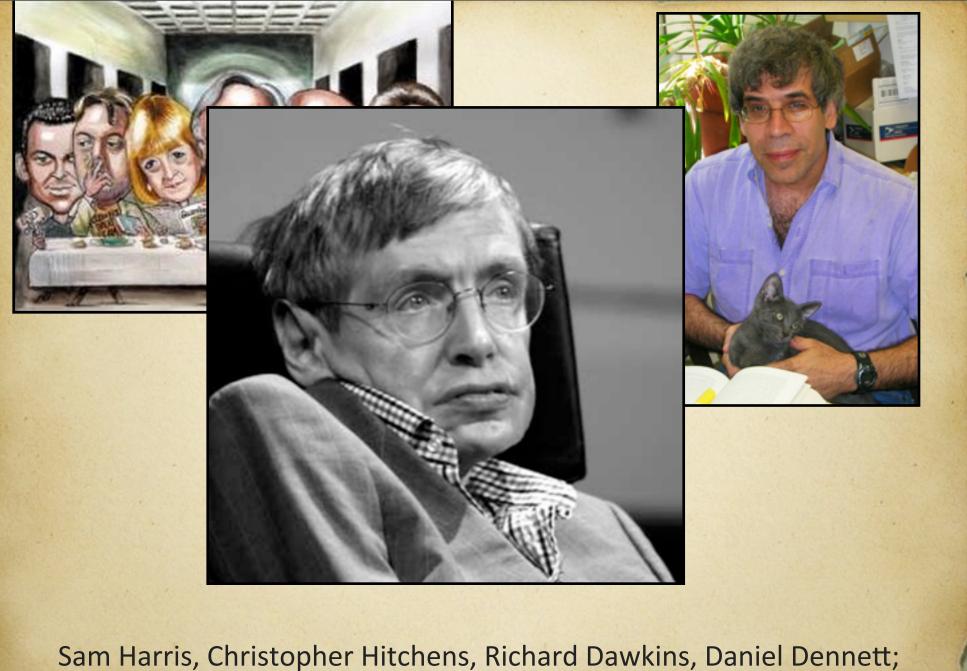
Sam Harris, Christopher Hitchens, Richard Dawkins, Daniel Dennett

(Polly Toynbee Martin Amis)

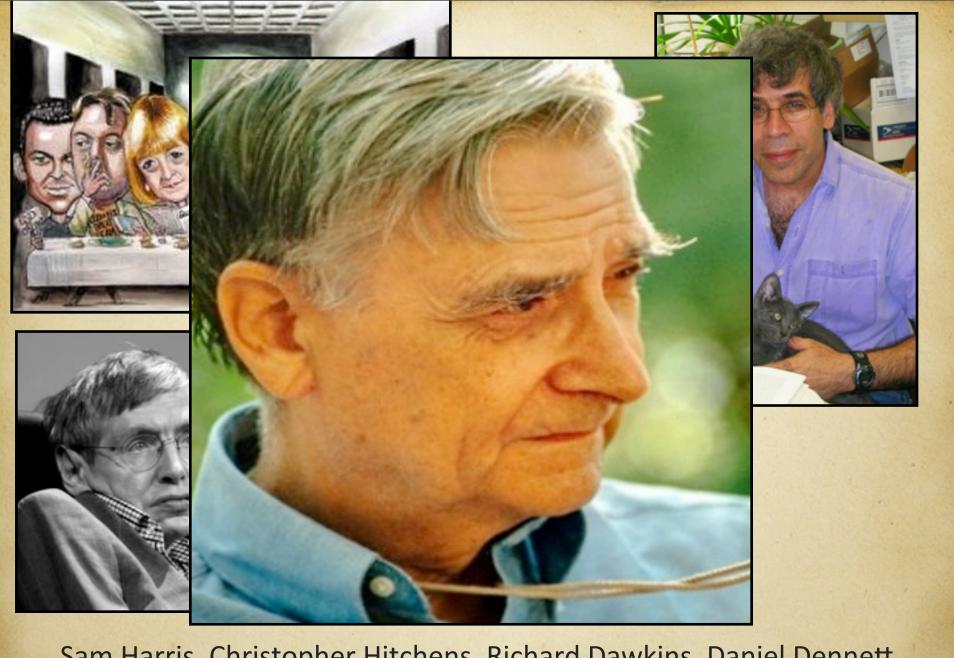


Sam Harris, Christopher Hitchens, Richard Dawkins, Daniel Dennett;

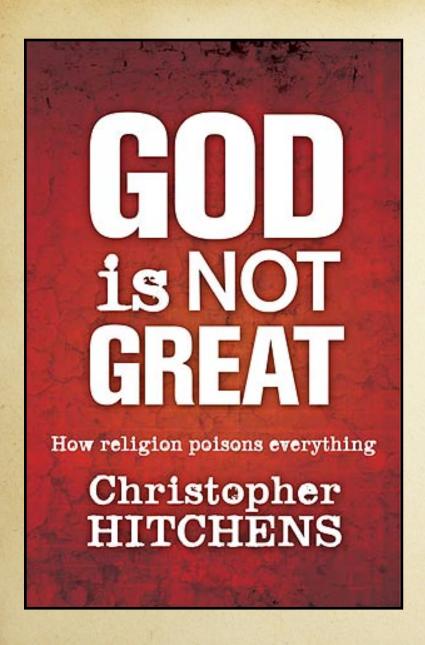
Jerry Coyne



Sam Harris, Christopher Hitchens, Richard Dawkins, Daniel Dennett;
Jerry Coyne, **Stephen Hawking** 



Sam Harris, Christopher Hitchens, Richard Dawkins, Daniel Dennett Jerry Coyne, Stephen Hawking, E. O. Wilson





Mother Teresa

the Pope

Muslim suicide bombers

"arid monotheism"

Martin Luther King

an evangelical huckster "dressed in a Little Lord Fauntleroy suit,"

the "sordid" theology of Pascal

seances

the "tawdry myths of Bethlehem,"

retherks At in sts fear—id en ceasants of antiquity"

"hysterical Jewish congregations,"

Mormons

the archbishop of Canterbury

the "vapid and annoying holiday known as 'Hanukah,'"

Voodoo

WWII-era Japanese emperor worship

Muhammad

"cobbled-together ancient Jewish books" (i.e., the Bible)

**Thomas Aquinas** 

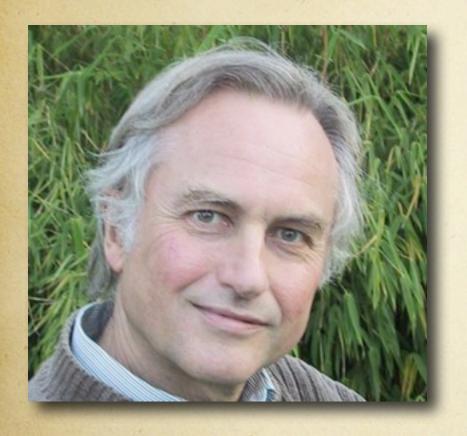
'Science, in the broadest sense, includes all reasonable claims to knowledge about ourselves and the world.'

Sam Harris

# SCIENCE

'The scientific method is the only method by which truth could be attained'

T. H. Huxley



.... religion is, in a sense, science; it's just bad science. Don't fall for the argument that religion and science operate on separate dimensions and are concerned with quite separate sorts of questions. Religions have historically always attempted to answer the questions that properly belong to science.....

Richard Dawkins (b. 1941)

Simonyi Professor of the Public Understanding of Science, University of Oxford, 1995-2008

'Is Science a Religion?'



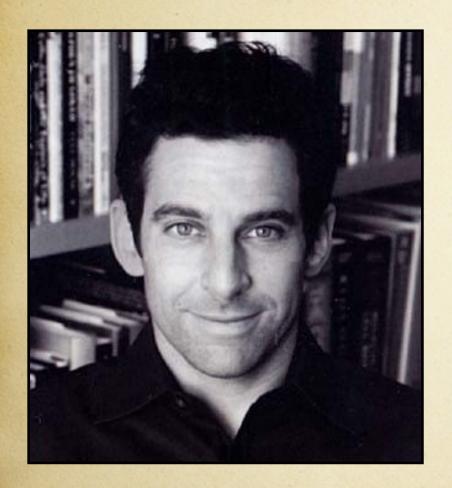
'Science and faith are fundamentally *incompatible*, and for precisely the same reason that irrationality and rationality are incompatible. They are different forms of inquiry, with only one, science, equipped to find real truth.... And *any* progress — not just scientific progress — is easier when we're not yoked to religious dogma.'

Jerry Coyne, 'Science and Religion aren't Friends', USA Today

'There is a fundamental difference between religion, which is based on authority, [and] science, which is based on observation and reason. Science will win because it works'

'Stephen Hawking on Religion: 'Science will Win'



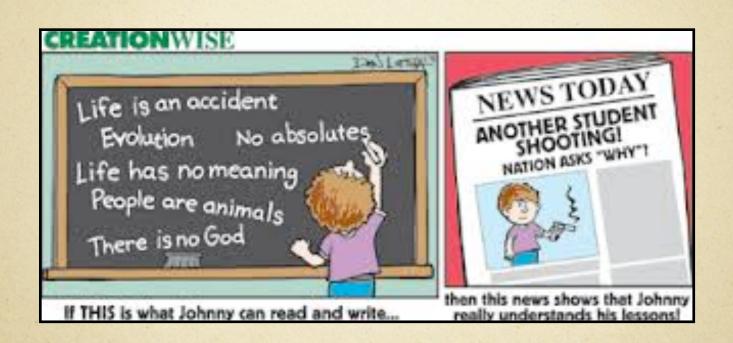


'the conflict between religion and science is inherent and (very nearly) zero-sum. The success of science often comes at the expense of religious dogma; the maintenance of religious dogma always comes at the expense of science.'

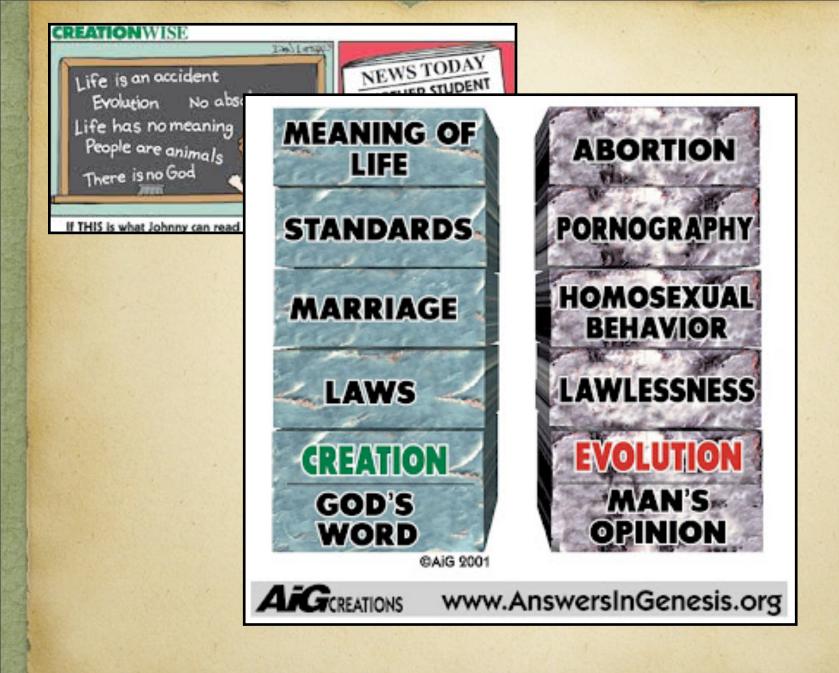
Sam Harris, 'Science must destroy Religion'

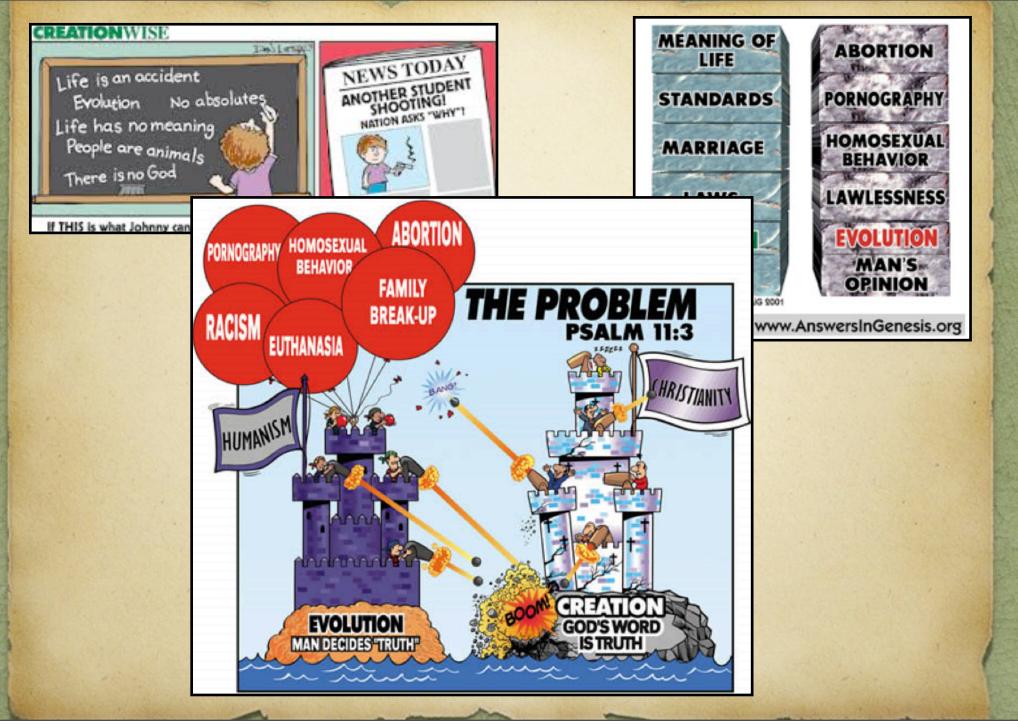
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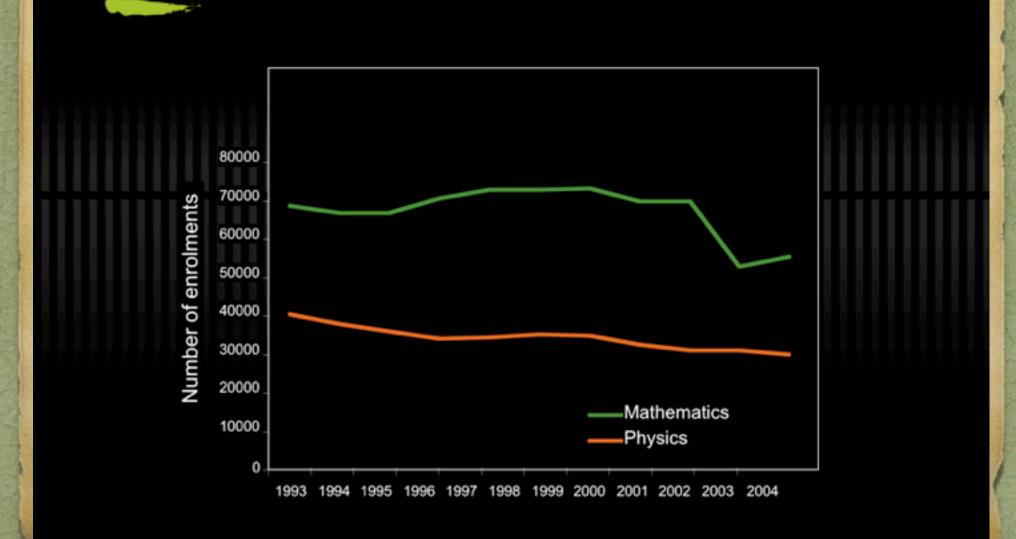
Cartoons from 'Answers in Genesis'





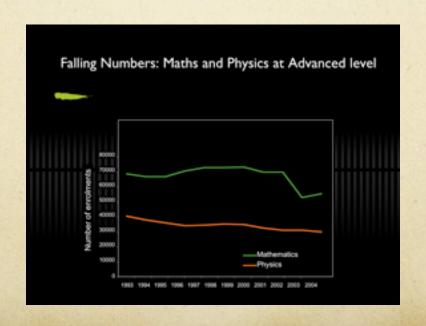
Friday, 12 September 14

# Falling Numbers: Maths and Physics at Advanced level



In 1999 47% of Americans said that scientific advancements were amongst the most important American achievements. In 2009 that had dropped to 27%.

AAAS and Pew Research Centre Data.





'... two thirds—of Americans believe that God created human beings pretty much in their present form at one time within the last 10,000 years.'

<a href="http://www.usatoday.com/news/politics/2007-06-07-evolution-poll-results\_N.htm?csp=34">http://www.usatoday.com/news/politics/2007-06-07-evolution-poll-results\_N.htm?csp=34</a>



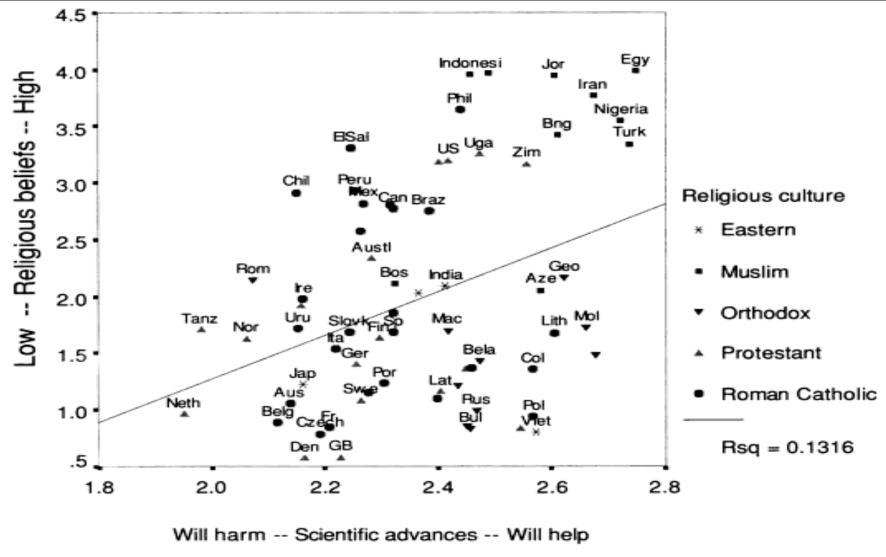
51% of Britons believe that "evolution alone is not enough to explain the complex structures of some living things, so the intervention of a designer is needed at key stages", and 33% believe that God created the world within the past 10,000 years.

http://www.guardian.co.uk/science/2009/feb/01/evolution-darwin-survey-creationism



25% of Australians believe "the biblical account of human origins" over the Darwinian account. 42 percent of Australians believe in a "wholly scientific" explanation for the origins of life, while 32 percent believe in an evolutionary process "guided by God"

http://www.theage.com.au/national/god-is-still-tops-but-angels-rate-well-20091218-l5v9.html



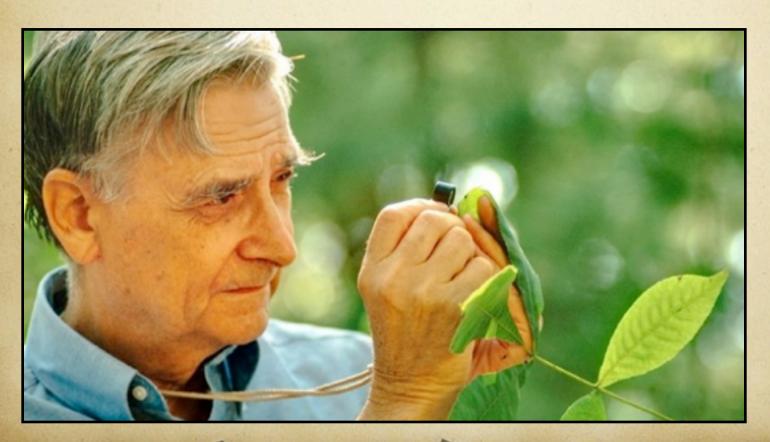
**Figure 3.3.** Faith in Science and Religion. Note: Attitudes toward science: Q 132: "In the long run, do you think the scientific advances we are making will help or harm mankind?" 1 "Will harm"; 2 "Some of each"; 3 "Will help." Religious beliefs: Summary 4-point scale composed of whether respondents expressed belief in heaven, in hell, in life after death, and in whether people have a soul. Source: World Values Survey, pooled 1981–2001.

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[Biology has] become the paramount science, exceeding other disciplines, including physics and chemistry at least, in the creative tumult of its disciplines and disputations

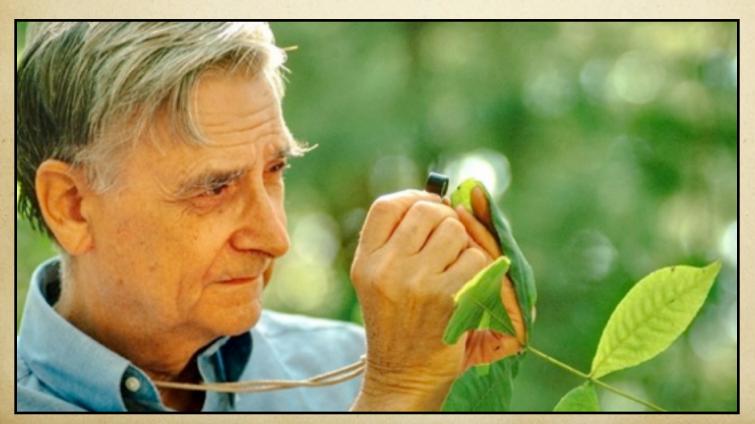
Biology has become foremost in relevance to the central questions of philosophy, aiming to explain the nature of mind and reality and the meaning of life.'



E. O. Wilson

Friday, 12 September 14

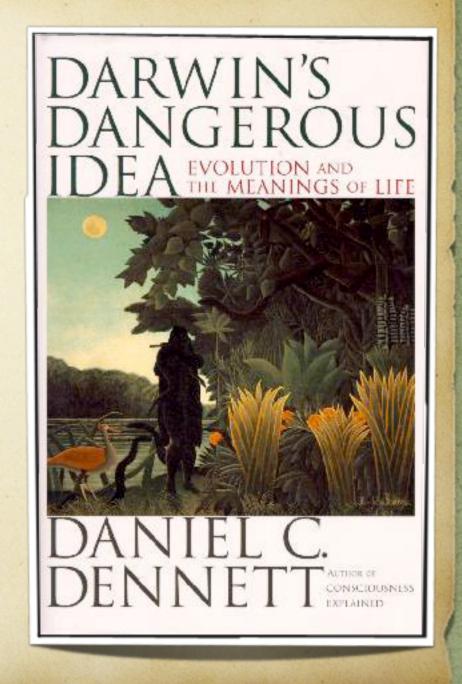
The evolutionary epic is probably the best myth we will ever have.



E. O. Wilson

Friday, 12 September 14

Darwin's dangerous idea "eats through just about every traditional concept, and leaves in its wake a revolutionized world-view, with most of the old landmarks still recognizable, but transformed in fundamental ways."



Questions that children always ask — "Where do I come from?", "What is the meaning of life?" — these questions have been given wrong answers by theology for centuries. The right answers to these questions now come from evolutionary science. That is my pitch, my educationist pitch, for evolution as the new classics.

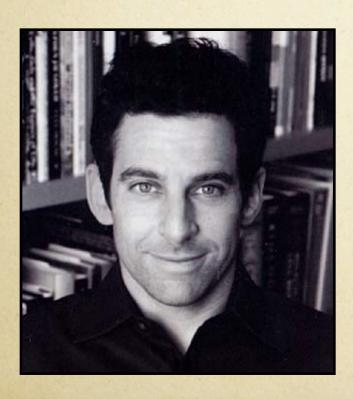
The universe exhibits 'no design, no purpose, no evil and no good, nothing but blind pitiless indifference.' And yet ...

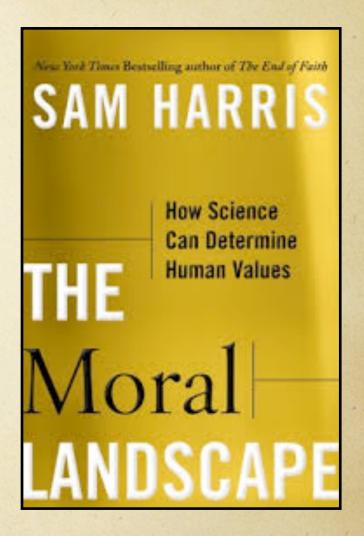
'Darwinism is the only theory that could solve the mystery of our existence.'



**Richard Dawkins** 

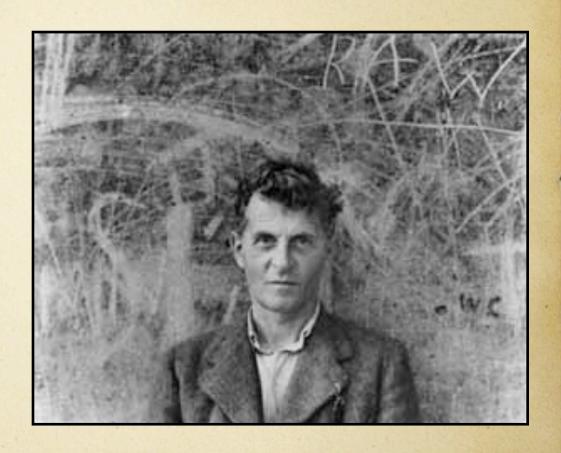
'Questions about meaning, morality, and life's larger purpose' are ultimately questions that science, and not religion, can answer. Science 'will gradually encompass life's deepest questions'.



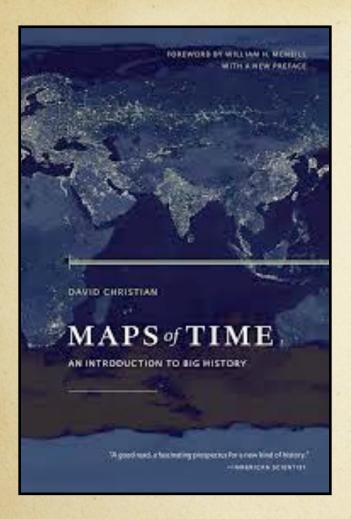


'We feel that even when all possible scientific questions have been answered, the problems of life remain completely untouched.'

Tractatus Logico-Philosophicus 6.28



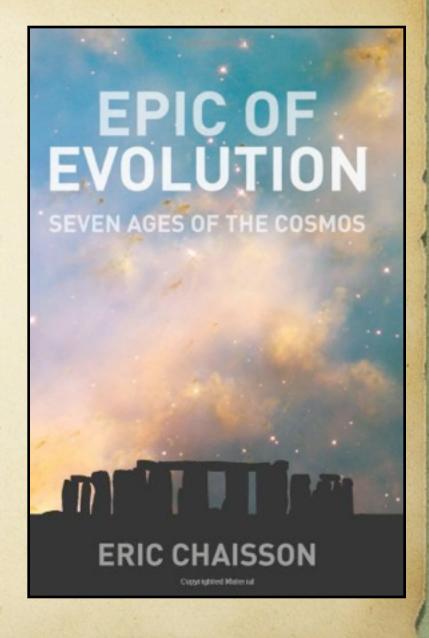
Ludwig Wittgenstein (1889-1951)



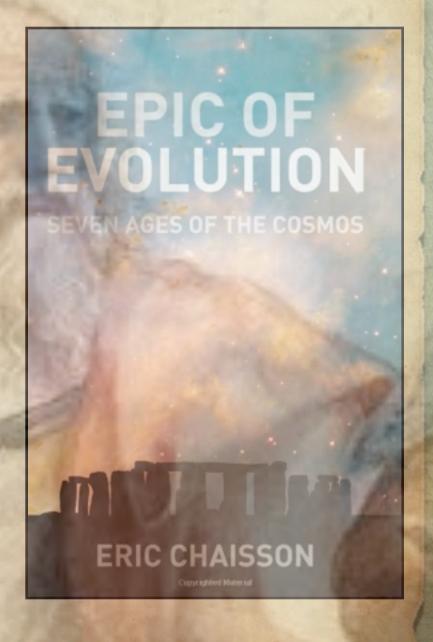
"Teaching this large story persuaded us that beneath the awesome diversity and complexity of modern knowledge, there is an underlying unity and coherence, ensuring that different timescales really do have something to say to each other. Taken together, these stories have all the power and richness of a traditional cycle of creation myths."

"Maps of Time attempts to assemble a coherent and accessible account of origins, a modern creation myth."

As we enter the new millennium, the integrated, coherent story of cosmic evolution—a powerful and noble epic can act as a viable intellectual vehicle to involve all our citizens as participants, not just spectators, in the building of a whole new legacy. Perhaps we are indeed becoming wise, ethical, humane human beings. Perhaps we are now on the path toward ethical evolution, arguably part of a cosmological imperative to help us address the many varied challenges along the future arrow of time.



As we enter the new millennium, the integrated, coherent story of cosmic evolution—a powerful and noble epic can act as a viable intellectual vehicle to involve all our citizens as participants, not just spectators, in the building of a whole new legacy. Perhaps we are indeed becoming wise, ethical, humane human beings. Perhaps we are now on the path toward ethical evolution, arguably part of a cosmological imperative to help us address the many varied challenges along the future arrow of time.



## Why does Science-Religion Conflict Persist?

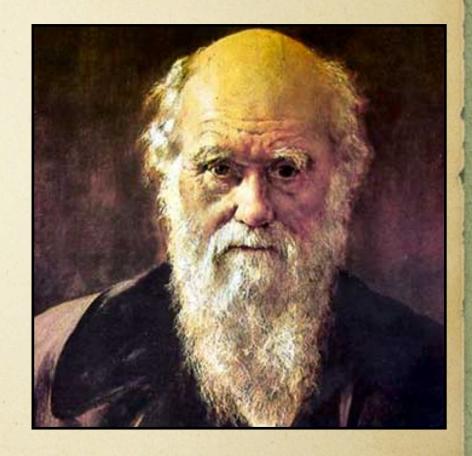
- Science-Religion conflict is often a proxy for more basic conflicts about fundamental values
- Religion concedes too much authority to science, and seeks to express its truths in scientific form
- Science lays claim to the realm of meaning and values

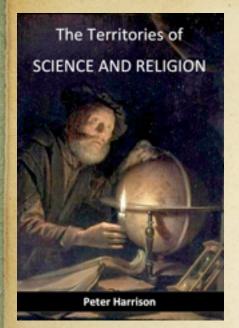
"It seems to me absurd to doubt that a man may be an ardent Theist & an evolutionist.... I have never been an atheist in the sense of denying the existence of God."

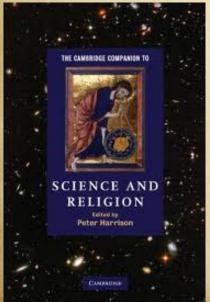
Charles Darwin to James Fordyce, 7 May 1879

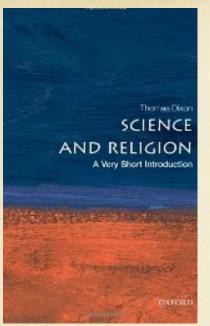
"I hardly see how religion & science can be kept distinct. But ... there is no reason that the disciples of either school should attack each other with bitterness."

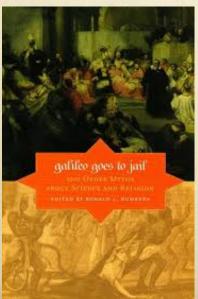
Charles Darwin to J. B. Innes, 27 November 1878











## **FURTHER READING**

Peter Harrison, *The Territories of Science and Religion* (Chicago, 2015).

Thomas Dixon, *Science and Religion: A Very Short Introduction* (Oxford, 2008).

Peter Harrison (ed.), *The Cambridge*Companion to Science and Religion (Cambridge, 2010)

Ronald H. Numbers (ed.), Galileo goes to Jail, and other myths in the history of science and religion (Harvard, 2011)

