Science and religion: conflict or cooperation?

- Conflict
- Independence
- Integration
- Dialogue

Louis Comfort Tiffany, "Education" (1890)
A Stationary Earth & Mobile Sun

- "The LORD is king, robed with majesty; the LORD is robed, girded with might. The world will surely stand in place, never to be moved." [Psalms 93:1]

- "The LORD is king. The world will surely stand fast, never to be moved. God rules the peoples with fairness." [Psalms 96:10]

- "You fixed the earth on its foundation, never to be moved." [Psalms 104:5]

- "Tremble before him, all the earth; he has made the world firm, not to be moved." [1 Chronicles 16:30]

- And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies. Is not this written in the book of Jasher? So the sun stood still in the midst of heaven, and hasted not to go down about a whole day." [Joshua 10:13]

Saint Augustine

"If it happens that the authority of sacred Scripture is set in opposition to clear and certain reasoning, the person who interprets Scripture does not understand it correctly."

The "Two Books" metaphor

- Nature
- Scripture
- Science & Philosophy
- Theology & Philosophy

God

Necessary Agreement

Human Interpretation

Potential Conflict

Human Interpretation

Nature - Scripture

Science & Philosophy - Theology & Philosophy
Galileo

“I do not feel obliged to believe that the same God who has endowed us with sense, reason and intellect has intended us to forgo their use.”

Kepler: Scientist or Theologian?

“I give myself over to my rapture. I tremble; my blood leaps. God has waited 6000 years for a looker–on to His work.”

Newton: Scientist or Theologian?

“God governs all things and knows all that is or can be done.”

Leibniz / Clarke Correspondence

1715 – 1716
The Merton Thesis (1938)

- An adjunct to Weber’s claims about capitalism and the “Protestant work ethic”
- English Puritans were strongly inclined to support the New Science and formed the nucleus of a group (“invisible college”) that eventually would go on to form the Royal Society of London.

Genesis & Geology

“There is a prejudice against the speculations of the geologists, which I am anxious to remove. It is said that they nurture infidel propensities … This is a false alarm. The writings of Moses do not fix the antiquity of the globe.”

Thomas Chalmers, 1804

Natural Theology

“With respect to the theological view of the question: This is always painful to me. I am bewildered. I had no intention to write atheistically, but I own that I cannot see as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent and omnipotent God would have designedly created the Ichneumonidae with the express intention of their feeding within the living bodies of caterpillars or that a cat should play with mice… On the other hand, I cannot anyhow be contented to view this wonderful universe, and especially the nature of man, and to conclude that everything is the result of brute force. I am inclined to look at everything as resulting from designed laws, with the details, whether good or bad, left to the working out of what we may call chance.”

Letter to Asa Gray (1860)

Charles Robert Darwin

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"I may say that the impossibility of conceiving that this grand and wondrous universe, with our conscious selves, arose through chance, seems to me the chief argument for the existence of God; but whether this is an argument of real value, I have never been able to decide. I am aware that if we admit a first cause, the mind still craves to know whence it came from and how it arose. Nor can I overlook the difficulty from the immense amount of suffering through the world. I am, also, induced to defer to a certain extent to the judgment of many able men who have fully believed in God; but here again I see how poor an argument this is. The safest conclusion seems to me to be that the whole subject is beyond the scope of man’s intellect; but man can do his duty."

"I was a young man with unformed ideas. I threw out queries, suggestions, wondering all the time over everything, and to my astonishment, the ideas took like wildfire. People made a religion of them."

"Truth unadulterated is only to be found in the temple of the study of nature, and ... the only available paths to it are critical observation and reflection – the empirical investigation of facts and the rational study of their efficient causes ... The goddess of truth dwells in the temple of nature, in the green woods, on the blue sea, and on the snowy summits of the hills – not in the gloom of the cloister ... nor in the clouds of incense of our Christian churches ... The paths which lead to the noble divinity of truth and knowledge are the loving study of nature and its laws, the observation of the infinitely great star-world with the aid of the telescope, and the infinitely tiny cell-world with the aid of the microscope – not senseless ceremonies and unthinking prayers..."

"What is Darwinism? It is Atheism. This does not mean, as before said, that Mr. Darwin himself and all who adopt his views are atheists; but it means that his theory is atheistic, that the exclusion of design from nature is ... tantamount to atheism."

"Riddle of the Universe" (1899)
Thomas Henry Huxley

“Extinguished theologians lie about the cradle of every science as the strangled snakes besides that of Hercules.”

Westminster Review, 1860

Conflict

- “I don’t know any historian of science, of any religious persuasion or none, who would hold to the theory that conflict is the name of the game between science and religion, it simply isn’t true.” (Colin Russell)
- The prime sources for the conflict thesis are two “historical” works:
  - J.W. Draper’s “History of the Conflict between Religion and Science” (1874)
  - A.D. White’s “History of the Warfare of Science with Theology in Christendom” (1896)

The Huxley–Wilberforce Debate

John William Draper

- Believed in the positivism of Auguste Comte which held that civilization moves through stages of which science is the peak.
- Spoke of the “expansive force of human intellect and the compression arising from traditionary faith.”
- Continually quotes authorities out of context – most notably St Augustine
- Vehemently anti-Catholic
Andrew Dickson White

- Founder of Cornell, the first major secular university in America
- He hoped Cornell would be "an asylum for Science—where truth shall be sought for truth’s sake, not stretched or cut exactly to fit Revealed Religion."
- In response to attacks on him by Protestants, he wrote "History" to describe how pernicious Catholicism was.
- Eventually, even Christian groups took White to task for perpetuating myths by his biases and cooking of the facts.

Early 20th Century Responses

- Science
- Spiritualism
- Religion

Clinging to the Ether

Oliver Lodge
Evolution driven by a life force (élan vital) struggling to overcome the limitations of matter and also manifesting itself in human creativity.

Progress toward Mind was determined, path of evolution was not.

Le Phénomène Humain (1955)

Evolution is a process of complexification and eventual unification of consciousness at the Omega Point.

“The most eminent and most reverent Fathers of the Holy Office exhort all Ordinaries as well as the superiors of Religious institutes, rectors of seminaries and presidents of universities, effectively to protect the minds, particularly of the youth, against the dangers presented by the works of Fr. Teilhard de Chardin and of his followers.” (1962)
Quantum mechanics is certainly imposing. But an inner voice tells me that it is not yet the real thing. The theory says a lot, but does not really bring us closer to the secret of the 'Old One.' I, at any rate, am convinced that He is not playing at dice.

“The most beautiful and deepest experience a man can have is the sense of the mysterious. It is the underlying principle of religion as well as of all serious endeavour in art and in science... He who never had this experience seems to me, if not dead, then at least blind. The sense that behind anything that can be experienced there is a something that our mind cannot grasp and whose beauty and sublimity reaches us only indirectly and as feeble reflection, this is religiousness. In this sense I am religious. To me it suffices to wonder at these secrets and to attempt humbly to grasp with my mind a mere image of the lofty structure of all that there is.”
“Classical” Scientific View

- **Deterministic**: Everything that happens according to strict laws, with no exceptions (no freewill)
- **Mechanistic**: The world is like a machine (e.g. clock) – the parts can fully explain the whole
- **Materialistic**: The world is composed of a bunch of distinct material objects (atoms)

The New Physics

- World is **not mechanistic**, but interconnected (more like an organism than a watch)
- World is **not deterministic**, but ruled by a mixture of law and probability (indeterminacy)
- World is **not clearly material**, but is multidimensional and more like an information system than a mechanism

Quantum Mechanics

- The role of the observer in creating reality.
- Was the Universe the product of an actualizing Mind?
- Arthur Eddington (1928): "religion first became possible for a reasonable scientific man about the year 1927."

Alternatives to Darwinism

- Theistic Evolution
- Orthogenesis
- Neo-Lamarckism
“No such conflict [between science and religion] should exist because each subject has a legitimate magisterium, or domain of teaching authority.… The net of science covers the empirical universe: what is it made of (fact) and why does it work this way (theory). The net of religion extends over questions of moral meaning and value.”

“[T]heories of evolution which, in accordance with the philosophies inspiring them, consider the spirit as emerging from the forces of living matter or as a mere epiphenomenon of this matter, are incompatible with the truth about man.”

Address to the Pontifical Academy of Sciences, Oct 1996.
The Columbine Shootings happened “because our school systems teach the children that they are nothing but glorified apes who have evolutionized out of some primordial soup of mud.” (June 16, 1999)
Creationists must reject:

- Biological Evolution
- Genetics
- Geophysics
- Astrophysics
- Particle Physics

**Peter W. Atkins**

“Science and religion cannot be reconciled, and humanity should begin to appreciate the power of [science] and to beat off all attempts at compromise. Religion has failed, and its failures should be exposed. Science, with its currently successful pursuit of universal competence … should be acknowledged the king.”

If science proves some belief of Buddhism wrong, then Buddhism will have to change. In my view, science and Buddhism share a search for the truth and for understanding reality. By learning from science about aspects of reality where its understanding may be more advanced, I believe that Buddhism enriches its own worldview.  

NYT, Nov 12th 2005

“Sweet is the lore that Nature brings;  
Our meddling intellect  
Mis-shapes the beauteous forms of things  
We murder to dissect.”

Wordsworth "The Tables Turned" (1798)

Do not all charms fly  
At the mere touch of cold philosophy?  
There was an awful rainbow once in heaven:  
We know her woof, her texture; she is given  
In the dull catalog of common things.  
Philosophy will clip an Angel's wings,  
Conquer all mysteries by rule and line,  
Empty the haunted air and gnome mine—  
Unweave a rainbow.  

Keats, Lamia: II, 229-237, 1819
The Two Cultures & The Science Wars