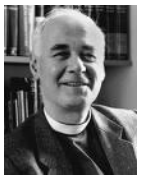


# The Question of Why

How do religions view science and  
how do scientists view religion?

# Scientists on God

- Atheist: “chilling impersonality of the universe”, “the more the universe seems comprehensible, the more it seems pointless” – Steven Weinberg.
- Skeptic: “no strong opinions on the interpretation of quantum theory”, “the implications of cosmology for these realms of thought may be profound, but diffidence prevents me from venturing into them.” – Martin Rees.
- Platonist: “mathematics suggests that there is a world beyond the immediate, material one”, “would one plus one equal two if the universe didn’t exist?” – Roger Penrose.
- Believer: “science and religion are intellectual cousins”, “physics is showing the world to be both subtle and subtle, but you need to be careful.” – John Polkinghorne.
- Pantheist: “the universe is attempting to be felt”, “the cosmos in its entirety can be called God. – Thomas Berry.



# Survey of Natural Scientists

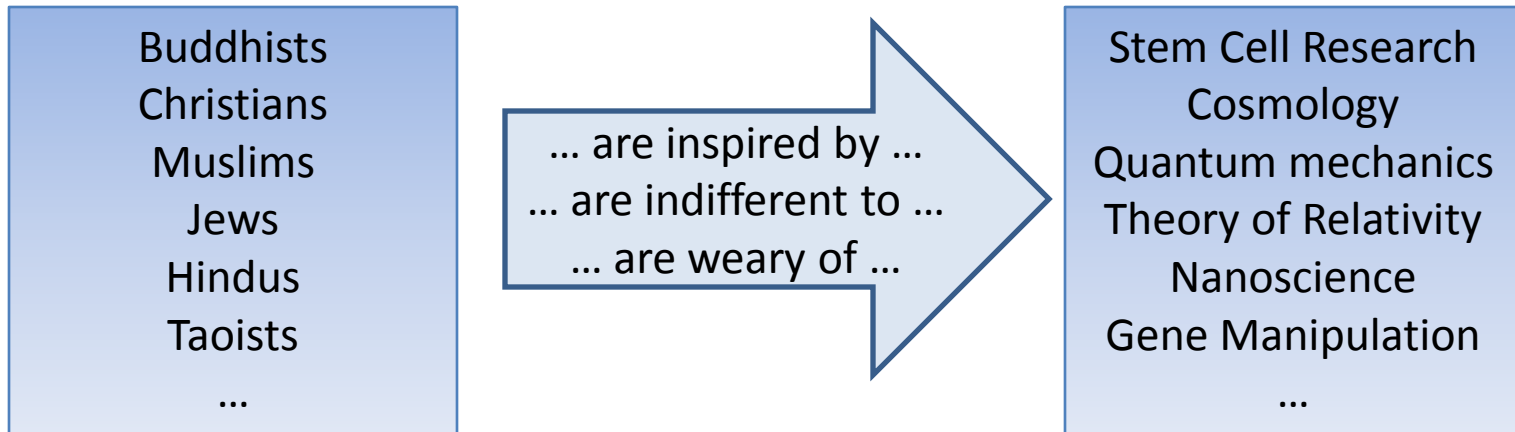
% per sample		1969	2005	GSS 2004 <sup>a</sup>	Natural Sciences							
					Physics		Chemistry		Biology		Natural Sciences Overall	
					1969	2005	1969	2005	1969	2005	1969	2005
<b>Current Religious Affiliation</b>	Protestant	29.1	17.1	55.2	28.6	19.8	39.6	19.8	31.7	13.3	32.3	17.2
	Catholic	5.0	8.9	24.4	3.7	6.4	6.7	14.1	6.3	6.9	5.7	8.8
	Jewish	14.7	15.8 <sup>ns</sup>	2.0	14.6	14.9	6.7	15.3	16.1	9.3	14.1	12.8 <sup>ns</sup>
	Other	6.3	7.3 <sup>ns</sup>	3.4	7.9	6.4	5.1	4.5	8.2	7.3	7.6	6.2 <sup>ns</sup>
	Nonaffiliated	44.9	50.9	15.0	45.2	52.5	42.0	46.3	37.7	63.3	40.3	55.0

## Findings/Conclusions:

- overall secularization among scientists.
- most dramatic change among biologists.
- significant decrease of protestants, moderate increase of catholics.
- “science is a master identity, mitigated by unwillingness to follow a codified way of doing things even in the face of individual dissent”.

Source: “Secularization and Religious Change among Elite Scientists”, E. Ecklund et al, Social Forces 86, 4 (2008).

# Religions on Science



- can be all of the above
- depends on the case
- doctrine vs. openness
- depends more on individuals & denominations

# Spins on the History of Science

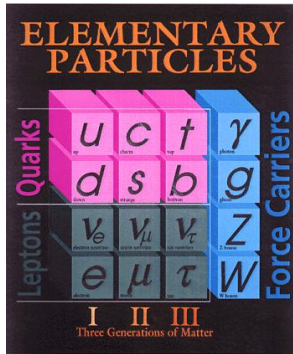
- a story of battles between church and science?
  - Extraordinary natural phenomena explained by science.
  - Galileo forced to abdicate heliocentric view.
  - Age of the Earth and creationism vs. evolution.
  - Psychology explained by neuroscience.

... tells of the diminishing realm of religion – its place taken by science.

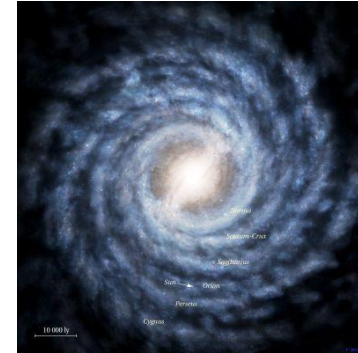
- or a story of convergence?
  - Areas of applicability of scientific approach become better defined.
  - Scientific Revolutions: new theories and models encompass old ones.
  - Evolving picture of what God is or could be.
  - More enlightened belief: science serves to understand more deeply.

... tells how our notions of both science and religion become more refined.

# Religious Inspiration from Science



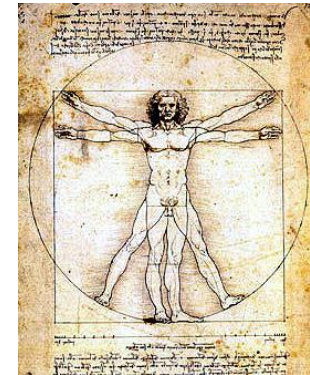
Symmetry: hierarchy of elementary particles



Vastness: the universe



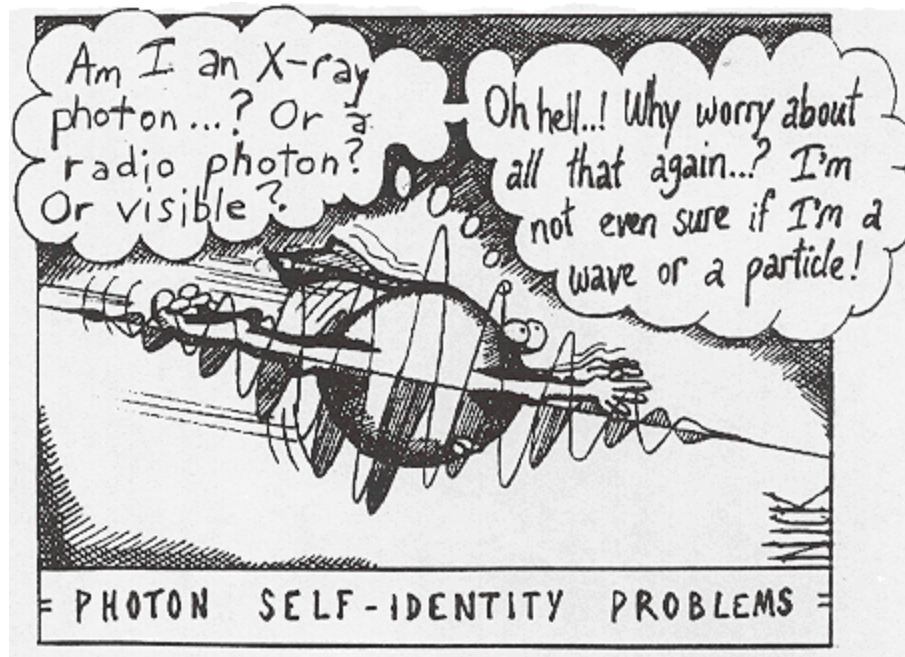
The Extraordinary: catastrophies



Complexity: the human body

# Quantum Mechanics

Accepting multiple perspectives of reality ...



# Stale Controversy

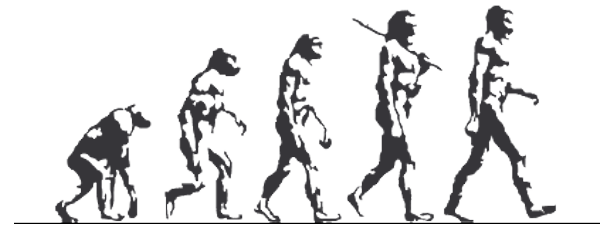
- The Age of the Universe

- Literal bible interpretations vs. scientific evidence.
- Cosmic time and length scales beyond imagination.
- Theories such as Big Bang and Parallel Universes are beyond imagination.



- Creationism vs. Evolution

- Stunning complexity and sophistication of life forms.
- How should one envision the process of creation?
- Scientific evidence vs. what we would like to believe in.



- The God Question

- Arguing about God's existence vs. experiencing it.
- A proxy for "who am I"?
- What is God anyhow?



# Religion and Ethics in Research



- Do the ends justify the means – e.g. animal research?
  - Yes, otherwise most of us would be dead by now.
  - No, we need to respect all life forms.
- Do we care what may be done with our findings?
  - Yes, otherwise we'll have nuclear war & organ farms.
  - No, somebody else will do it anyways.

# Realms Beyond Science

- What can we understand with math and science and what not?
  - Are there clear cut boundaries between the physical world and beyond?
- The question of Why: where does it end and what are acceptable answers?
  - Why, why, why ... - are we looking for mechanisms or for consolation?
- Understanding how the brain works: is there room for free thought?
  - Sure, it feels like free thought – but is it?