

“Evolution and Hope”

“Thy will be done, on earth as it is in heaven”

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Los Alamos Faith and Science Forum

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Outline

- Hope
- Evolution
- Scientist: Teilhard de Chardin – the “Noosphere” is coming
- Columnist: Thomas Friedman - the “Noosphere” is here
- Theologian: John Haught – the God of evolution
- How are we doing?
- Questions

“Hope”

How the future influences our lives today



- Take an umbrella.
- Get a flu shot.
- Plan a vacation.
- Pay our taxes.
- Collect for UNICEF.
- Love our Neighbor.

Evolution

- Wikipedia definition: “Evolution is change in the heritable characteristics of biological populations over successive generations.”
- My understanding- the gamut from “nothing” to “quarks” to “baryons/leptons” to “atoms” to “molecules” to “matter” to “plants” to “animals” to “humans”.
- Ingredients needed for evolution: law, contingency and time
 - Law – inflexible dictates of chemistry and physics
 - Contingency – genetic mutations, asteroids, etc.
 - Time – big changes take longer than small changes
- Haught: “...there can be not serious doubt that the natural world has journeyed directionally from simplicity to complexity, from triviality to more intense harmonies of content...toward increasing beauty.”

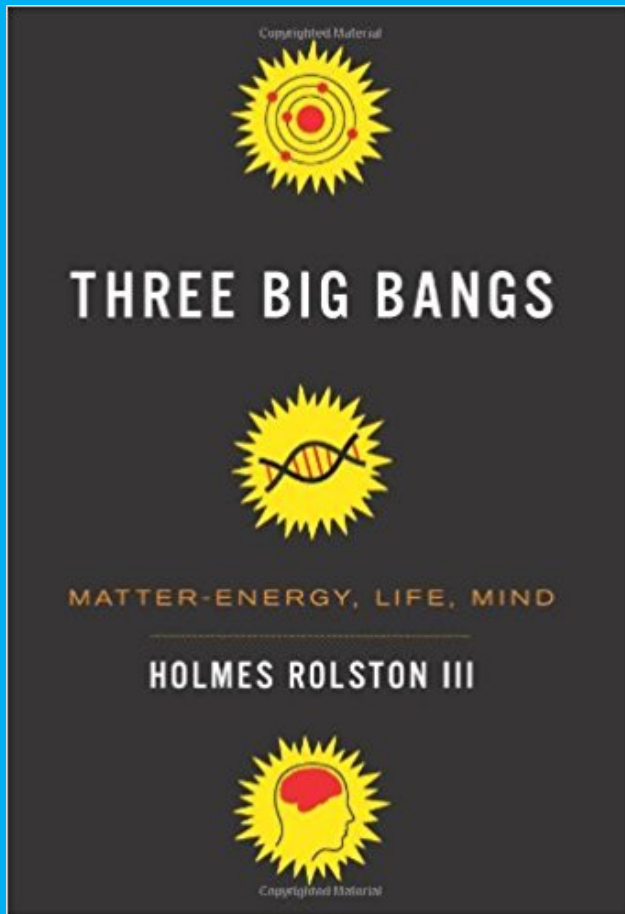
How'd He do it?

God stacked the deck

- Anthropic principle/fine-tuned universe
 - As Stephen Hawking has noted, "The laws of science,..., contain many fundamental numbers, like the size of the electric charge of the electron and the ratio of the masses of the proton and the electron. ... The remarkable fact is that the values of these numbers seem to have been very finely adjusted to make possible the development of life."
- Inwardness:
 - Haught - "...we can say that even if it's bare potentiality for inwardness is enough..." "And this implies that "right from the beginning matter is subjectivity and it's latent form, even if aeons, plus exceptional luck, are required for the actualization of this potential."
 - Whitehead's thoughts: "Yet it is not just our own human mentality but a 'subjective' quality at the heart of every occasion in the cosmic process that for Whitehead permits the interaction of God and nature."
- Comes close to materialism

How'd He do it?

Direct intervention



- Big Bangs: matter, life and cognitive capacities
- Psalm 104:30 – “Send forth your spirit, they are created and you renew the face of the earth.”
- Jesus Christ
- Marian Apparitions
- “Theodicy” – does God’s plan include all the suffering and evil? Why no intervention here?

How'd He do it?

Gentle Nudges

- He had a lot of time!
- “Dead ends”
- Prayers
- Miracles
- Guardian Angels?

Pierre Teilhard de Chardin, S.J.

The Quintessential Man of faith and science



- Pierre Teilhard de Chardin SJ; (1 May 1881 – 10 April 1955) was a French idealist philosopher and Jesuit priest who trained as a paleontologist and geologist and took part in the discovery of Peking Man.
- He conceived the vitalist idea of the Omega Point (a maximum level of complexity and consciousness towards which he believed the universe was evolving) and developed Vladimir Vernadsky's concept of noosphere.
- Although many of Teilhard's writings were censored by the Catholic Church during his lifetime because of his views on original sin, Teilhard has been posthumously praised by Pope Benedict XVI and other eminent Catholic figures, and his theological teachings were cited by Pope Francis in the 2015 encyclical, *Laudato si'*.

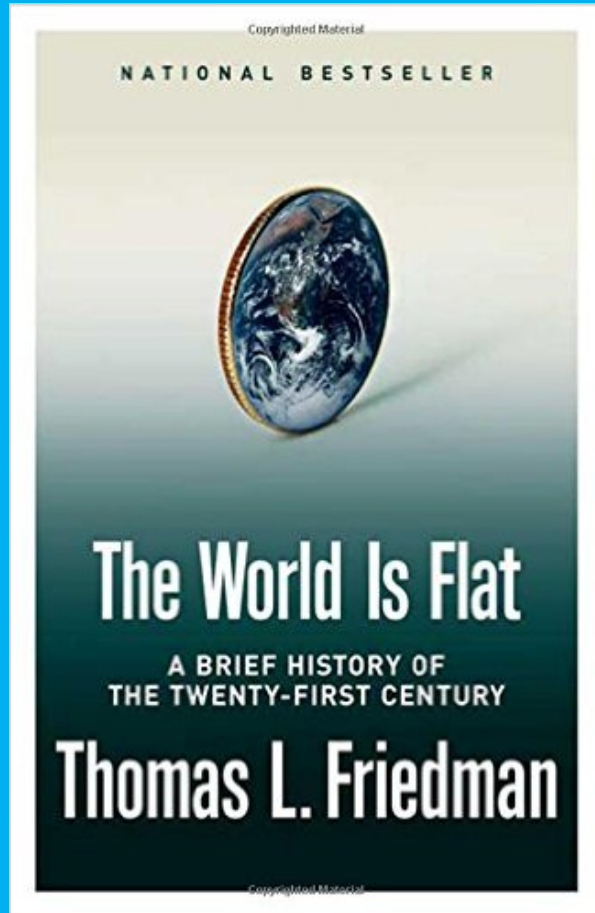
The Phenomenon of Man

- Chardin's posthumously published book, *The Phenomenon of Man*, set forth a sweeping account of the unfolding of the cosmos and the evolution of matter to humanity, to ultimately a reunion with Christ. In the book, Teilhard abandoned literal interpretations of creation in the Book of Genesis in favor of allegorical and theological interpretations.
- The unfolding of the material cosmos, is described from primordial particles (geosphere) to the development of life (biosphere), to human beings (consciousness) and the noosphere, and finally to his vision of the Omega Point in the future, which is "pulling" all creation towards it.
- He was a leading proponent of orthogenesis, the idea that evolution occurs in a directional, goal-driven way, argued in terms that today go under the banner of convergent evolution.
- Teilhard made a total commitment to the evolutionary process in the 1920s as the core of his spirituality, at a time when other religious thinkers felt evolutionary thinking challenged the structure of conventional Christian faith. He committed himself to what the evidence showed.

Christogenesis

- The Pauline description of the Body of Christ is not simply a mystical or ecclesial concept for Teilhard; it is cosmic. This cosmic Body of Christ "extend[s] throughout the universe and compris[es] all things that attain their fulfillment in Christ [so that] . . . the Body of Christ is the one single thing that is being made in creation."
- Teilhard describes this cosmic amassing of Christ as "Christogenesis." According to Teilhard, the universe is engaged in Christogenesis as it evolves toward its full realization at Omega, a point which coincides with the fully realized Christ. It is at this point that God will be 'all in all' (1Cor. 15:28c).

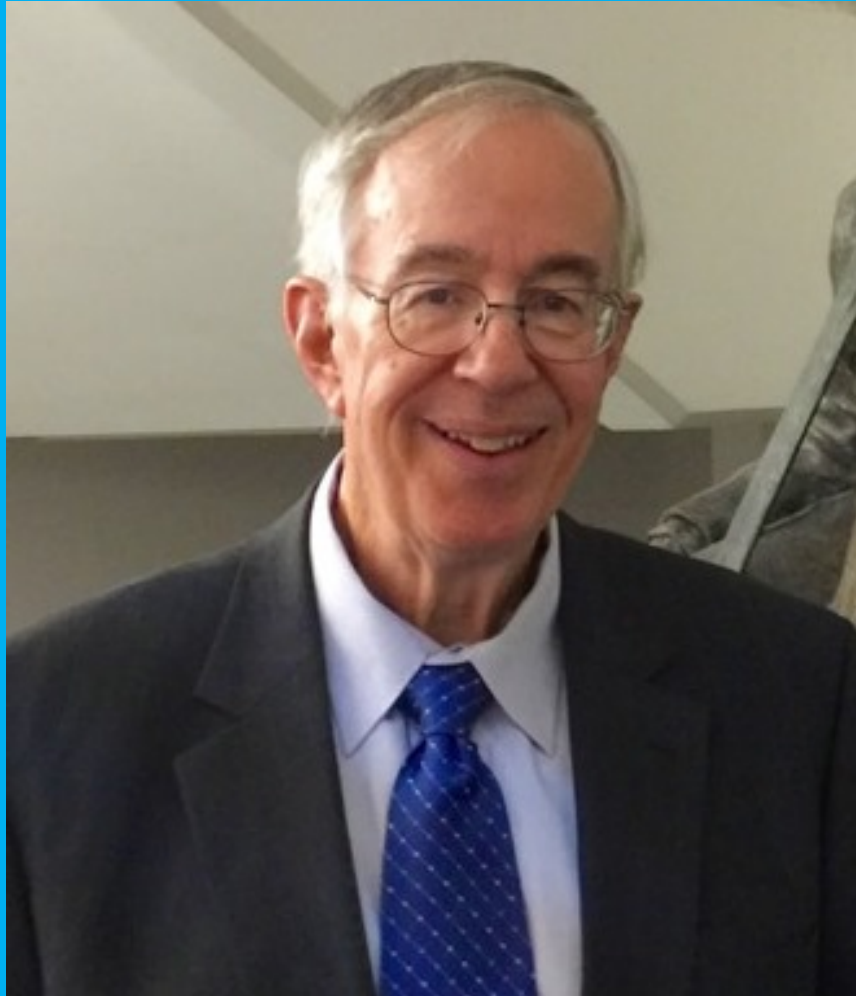
The Noosphere is here!



- *The World Is Flat: A Brief History of the Twenty-first Century* is an international best-selling book by Thomas L. Friedman that analyzes globalization, primarily in the early 21st century.
- The Internet and Social Media are tools that accelerated the blossoming of the Noosphere.
- He points out that because of them a student in India has the same opportunity as a student in Iowa.

Professor John Haught

Distinguished Research Professor at Georgetown University,
Washington, DC. (Here on June 22 & 23)



- In 2005, he stood side by side with scientists and testified at the infamous Dover, Pennsylvania, evolution trial in arguing against teaching intelligent design in schools—claiming that ID was a religious belief system and thus had no place in the classroom.
- Yet, true to his own convictions, he cautioned against the false hegemony of science as well, telling the jury that materialism is “a belief system, no less a belief system than is intelligent design.”

“God After Darwin”

A Book Review

- Summary of book: In *God after Darwin*, John Haught argues that the ongoing debate between Darwinian evolutionists and Christian apologists is fundamentally misdirected: both sides persistent focusing upon an explanation of underlying design and order in the universe.
- Haught suggests that what is lacking in both of these competing ideologies is the notion of novelty, a necessary component of evolution and the essence of the unfolding of divine Mystery.
- For Haught God is not static, unchanging and “up above”.
- God, after Darwin, is in the future, a loving giving, feeling God.

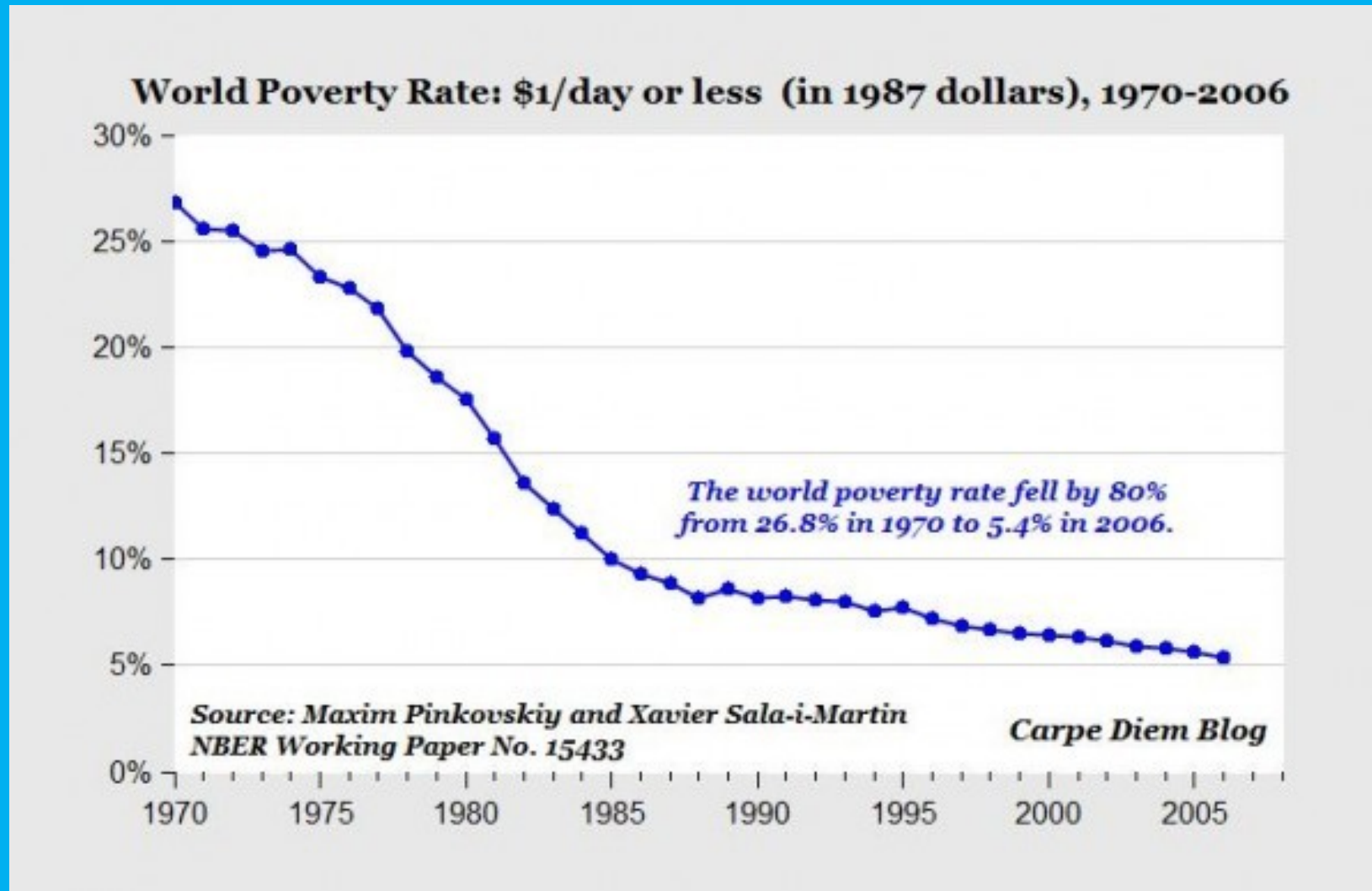
Original Sin?

- “Obviously an evolutionary understanding of life cannot be reconciled in a literal sense with the story of a primordial couple, Adam and Eve, rebelling against God in the Garden of Eden and passing down the consequences of their disobedience through our genetic history.”
- “...original sin means that each of us is born into a still unfinished, imperfect universe where there already exist strong pressures...for us to acquiesce in an indifference to God’s creative aim of maximizing beauty.”
- “Evolutionary science...has...abolished, at least in principle, the whole cosmological framework in which motifs of reparation and expiation have become so deeply entrenched in our cultures and our classical spiritualities.”

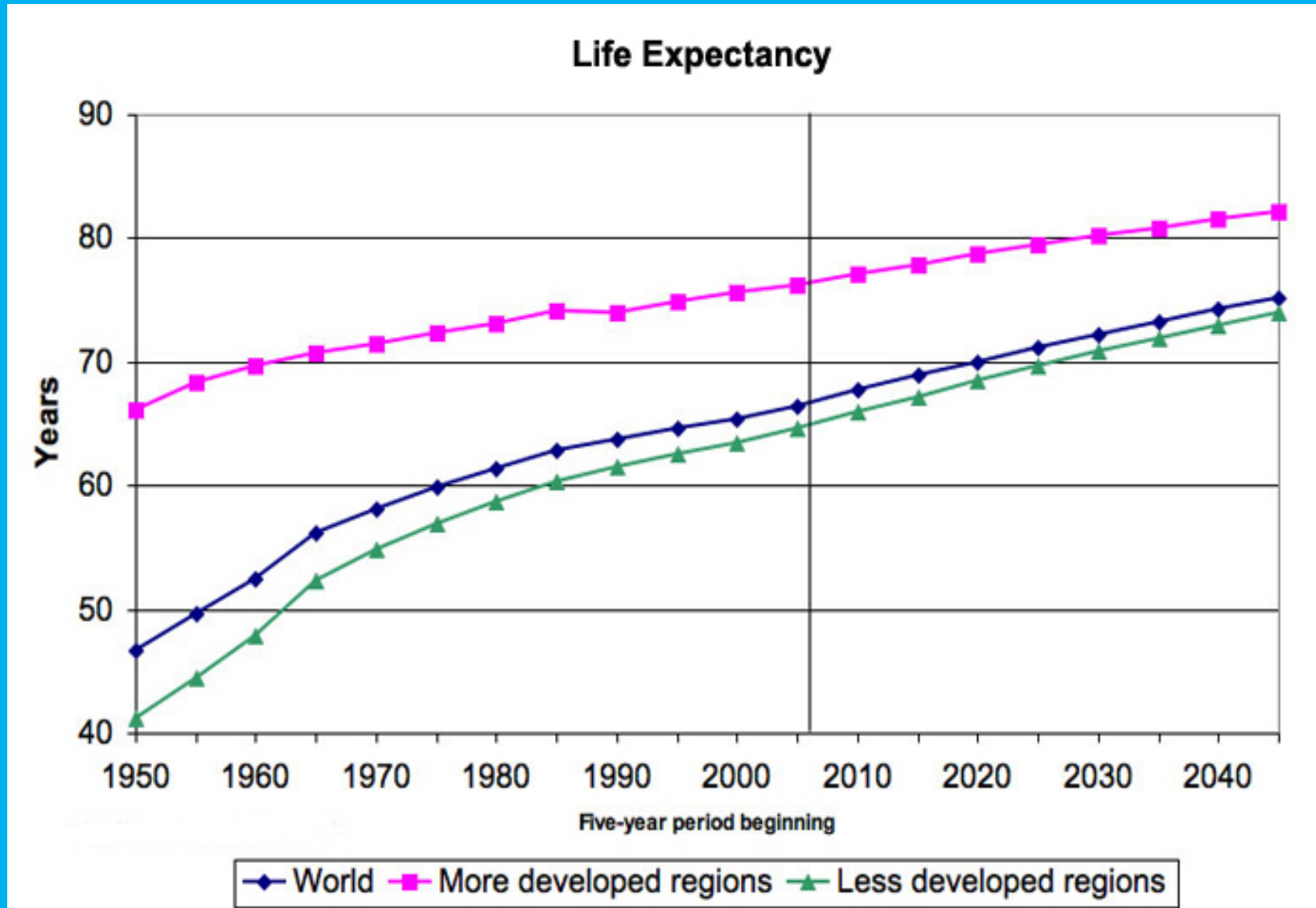
How are we doing our job?

- Are we approaching Chardin's Omega point?
- Is "homo sapiens" evolving or using better tools?
- "Thy will be done, on earth as it is in heaven"???
- A couple examples follow.

World Poverty Rate Decreasing



Life Expectancy Increasing



**The Los Alamos Faith and Science Forum presents two lectures
by John Haught**

Distinguished Research Professor, Georgetown University, Washington DC

June 22-23, 2017 at 7 PM

Fuller Lodge, 2132 Central Avenue, Los Alamos, NM

- Thursday June 22: Science, Religion, and Cosmic Purpose: Most issues in contemporary discussions of science and religion come down to the question of whether the universe may reasonably be said to have a purpose. This lecture examines the question of whether the natural sciences are compatible with the widespread religious claim that the universe is here for a reason.
- Friday June 23: Evolution and Faith: What Is at Stake: In 1859 Charles Darwin (1809-1882) published *On the Origin of Species* introducing his famous theory of evolution. Biologists today marvel at how well the theory has held up during the last century and a half. This lecture examines the question of the compatibility of contemporary evolutionary biology with religion and specifically with biblical faith.

Questions?

- How does God influence evolution? Stacking the deck, Direct Intervention or Gentle Nudges?
- Is God unchanging? Does He “feel” our tragedies? Is God vulnerable?
- What about “Original Sin”? Does mankind have a “fallen nature”?
- “Everything that occurs is “saved” by being taken eternally into God’s own feeling of the world” – what do you think about this statement?
- What sort of causal link do we have to conceptualize as occurring between God and the early, not-yet-sensate universe in order to explain how the latter’s non-metabolic processes can be moved effectively in the direction of life in mind?

Extra Slides

Chardin and the Catholic Church

- In 1925, Teilhard was ordered by the Jesuit Superior General Wlodimir Ledóchowski to leave his teaching position in France and to sign a statement withdrawing his controversial statements regarding the doctrine of original sin. Rather than leave the Society of Jesus, Teilhard signed the statement and left for China. The climax of these condemnations was a 1962 *monitum* (reprimand) of the Holy Office cautioning on Teilhard's works.
- Shortly thereafter, prominent clerics mounted a strong theological defense of Teilhard's works. Henri de Lubac (later a Cardinal) wrote three comprehensive books on the theology of Teilhard de Chardin in the 1960s.
- Later that decade Joseph Ratzinger, a German theologian who became Pope Benedict XVI, spoke glowingly of Teilhard's Christology in Ratzinger's Introduction to Christianity.
- in July 2009, Vatican spokesman Fr. Federico Lombardi said, "By now, no one would dream of saying that [Teilhard] is a heterodox author who shouldn't be studied."
- Pope Francis refers to Teilhard's eschatological contribution in his encyclical *Laudato si'*.

Hope?

- An optimistic **attitude of mind** that is based on an **expectation** of positive outcomes related to events and circumstances in one's life or the world at large. (Wikipedia)
- The **feeling** that something **desired** can be had or will happen. (Cambridge Dictionary)
- To **trust in**, wait for, look for, or **desire** something or someone; or to **expect** something beneficial in the future. (Baker's Evangelical Dictionary of Biblical Theology)

Evolution puts Theologians in a Bind

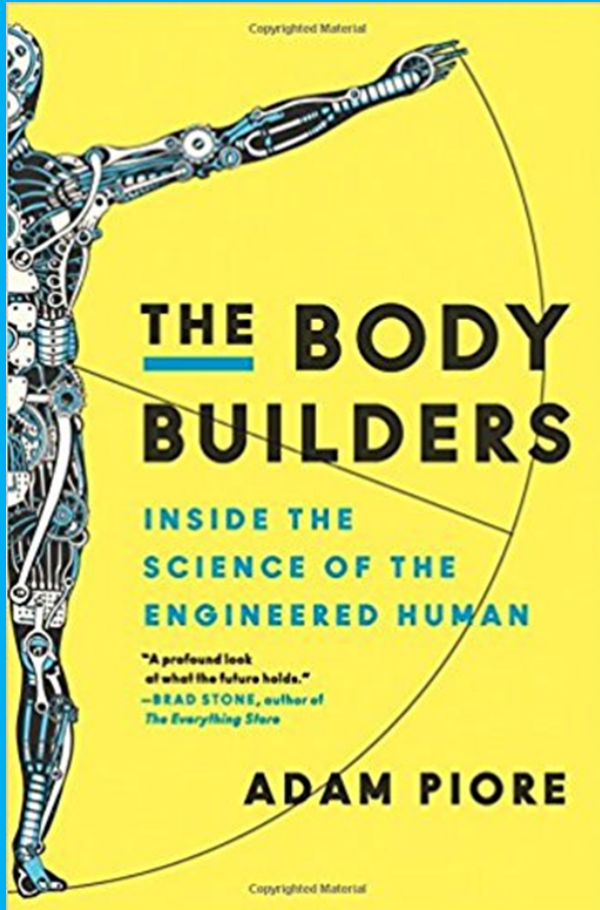
- Materialism – God plays no role; it’s all chemistry, etc.
- Intelligent Design – Evolution is following God’s design
 - “Theodicy” – does God’s plan include all the suffering and evil?
- How does God interact with the cosmos? “Lord, let your spirit
- renew the face of the earth”.
- Haught: “...should theology be obliged to specify in terms of physical particulars just how God influences the natural world.”
- Haught: “The informational analogy allows us to appreciate how the universe as a whole may have some overall meaning or “point” to it without this meaning or “point” needing to be displayed at the same level of investigation at which natural science functions.”

Evolution and Ethics

- “...without a core conviction that the cosmos is at heart an expression of divine purpose our ethical aspiration will wither and die.”
- **“...an appropriate way of thinking about cosmic purpose in an evolutionary world, and hence of providing a firm basis in evolution for human ethical behavior, consists in the view that the cosmos is a restless aim toward ever more intense configurations of beauty.”**
- “Beauty is a delicate synthesis of unity and complexity, stability and motion, form and dynamics...”
- **“...there can be not serious doubt that the natural world has journeyed directionally from simplicity to complexity, from triviality to more intense harmonies of content...toward increasing beauty.”**

The Body Builders: Inside the Science of the Engineered Human

by Adam Piore (Author)



- **#1 New Release in Biotechnology**
- For millennia, humans have tried—and often failed—to master nature and transcend our limits. But this has started to change. The new scientific frontier is the human body: the greatest engineers of our generation have turned their sights inward, and their work is beginning to revolutionize mankind.
- In *The Body Builders*, Adam Piore takes us on a fascinating journey into the field of bioengineering—which can be used to reverse engineer, rebuild, and augment human beings—and paints a vivid portrait of the people at its center.
- As science continues to lay bare the mysteries of human performance, it is helping us to see—and exist—above our expectations. *The Body Builders* will take readers beyond the headlines and the hype to introduce them to the inner workings and the outer reaches of our bodies and minds, and explore how new developments are changing, and will forever change, what is possible for humankind.

Cosmic Evolution and Divine Action

- “It is the task of a theology of evolution, therefore, to provide an understanding of how divine interaction with the cosmos might influence the process of evolution.”
- “At a time in cosmic history when matter was still not yet alive even to the point of primitive metabolism, how could it have been susceptible to the influence of God without processing, at least to some degree, an ‘inwardness’?”
- Summarizing Whitehead's thoughts: “Yet it is not just our own human mentality but a ‘subjective’ quality at the heart of every occasion in the cosmic process that for Whitehead permits the interaction of God and nature.”
- “Cosmology remains incomplete until inner experience is accorded the status of being a fundamental category in our understanding of the natural world.”