



We're all on a journey...

What lies ahead?

Our journey takes us into “The Future”

- “The Future”
 - abstraction
 - metaphor
- Many “Futures”
 - Our personal future
 - The future of our family and friends
 - Future of Humanity
 - Future of the Cosmos



What lies ahead?

Floating cities of The Future

Hope, Hopelessness, and

THE FUTURE

Nels Hoffman

Los Alamos Faith and Science Forum

Humans have always sought to see ahead

- Sky watching
- Seers and oracles
- Divination
 - Crystal balls
 - Tea leaves
 - Palmistry
 - Tarot
 - Haruspicy
 -



Haruspicy – divination by inspecting the organs of animals

Prophecy: For thousands of years, people throughout the world have made predictions about “the times yet to come”



The Prophet Ezekiel



The Kingdom of Shambhala

We can try to discern the future by studying history

- Ancient cultures differ from modern cultures
- But there are often parallels
- Human nature is remarkably constant



The Sack of Rome

We can try to imagine the future through art and literature



Umberto Boccioni – Italian Futurist sculpture “Unique Forms of Continuity in Space” (1913)



Fritz Lang – film “Metropolis” (1927)

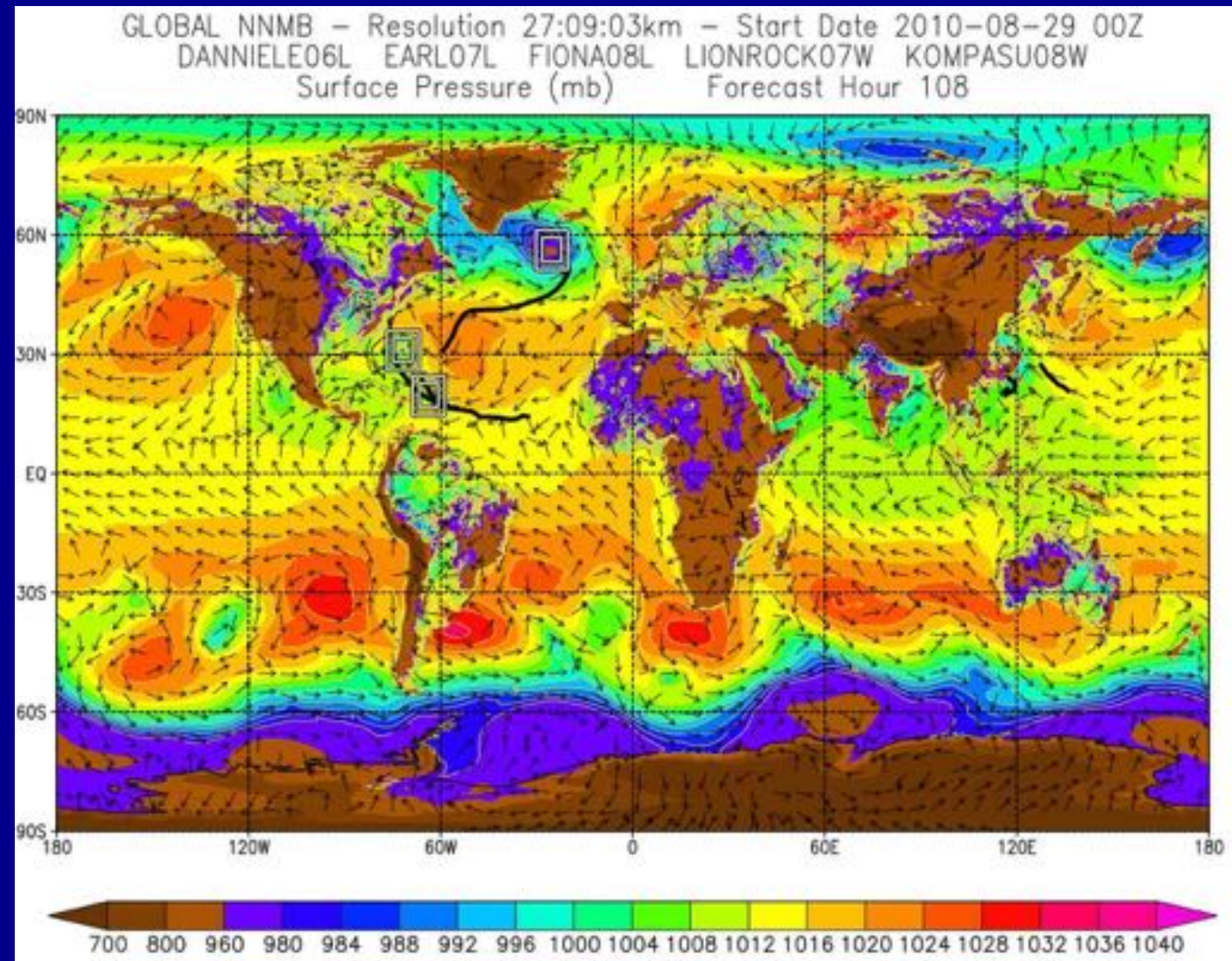


Yayoi Kusama – installation art “Infinity Mirrored Room” (2013)

Today we use advanced methods of scientific prediction to look into the future

- Huge computers run simulations based on elaborate scientific models
- Computer predictions are used everywhere:
 - Engineering design
 - Bridges and buildings
 - Airplanes
 - Automobiles
 - Weather and climate
 - Insurance risk
 - Marketing and advertising
 - Analysis of “Big Data”
 -
- Predictions are steadily becoming more accurate

**Dan Winske will talk about
Prediction and Prophecy on July 12**



What do we see in “The Future”?

How do we feel about it?

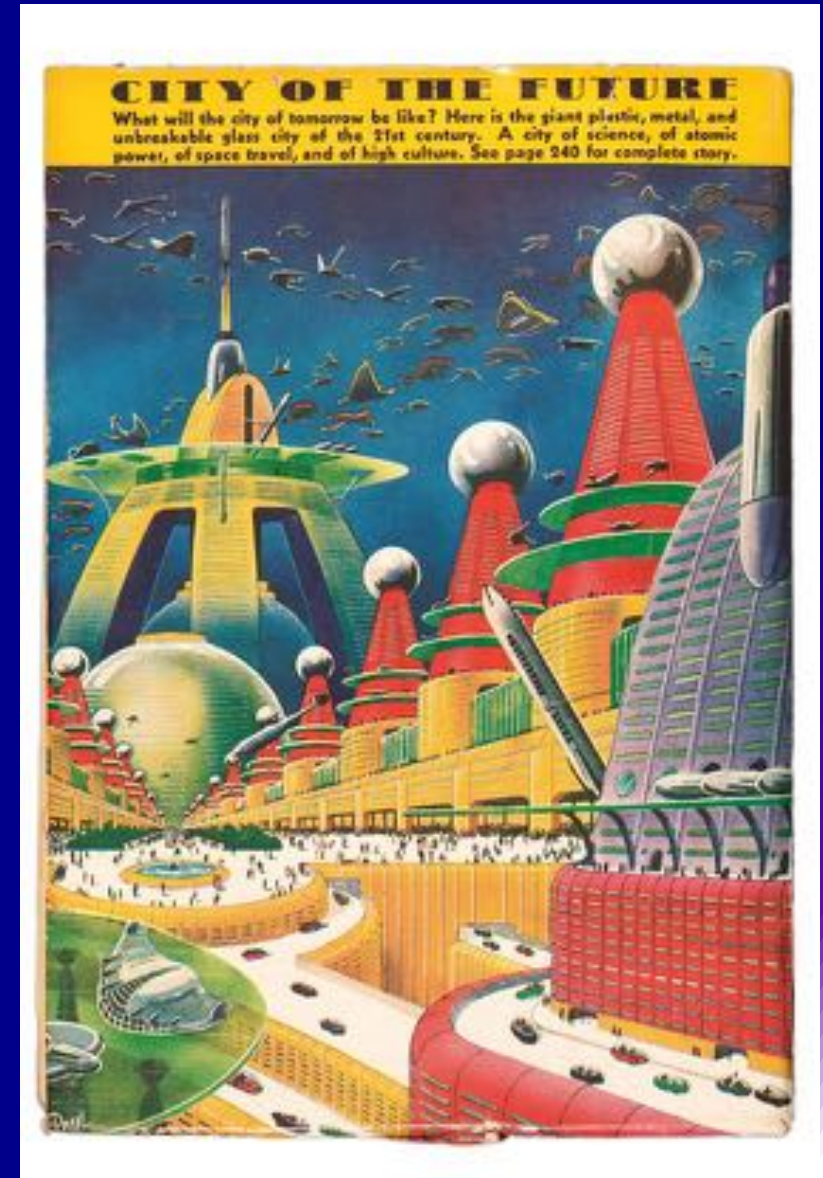
- This summer we'll look at the Future from different angles
 - Science
 - Religion
 - History and sociology
 - Literature and art
- We'll consider the basis for
 - Hope/optimism
 - Despair/pessimism



Future Los Angeles in *Bladerunner*

What do you see in “The Future”? How do you feel about it?

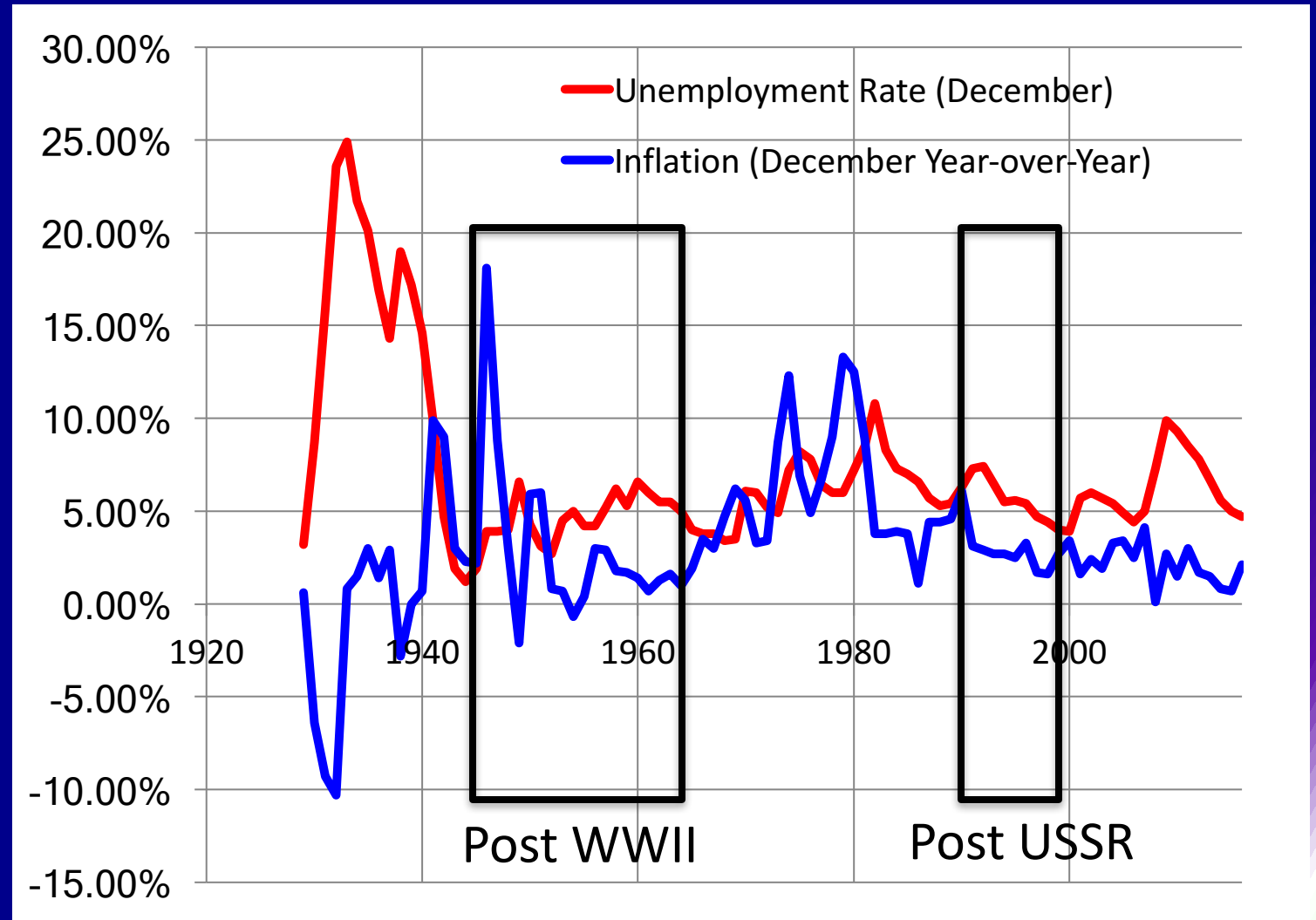
- How we personally feel about the future depends a lot on our current circumstances
 - Life events, births, deaths, marriage, divorce, jobs, relationships, health...
 - Our own and those we are close to
- How we as a society feel about the future likewise depends on current circumstances
 - Technological progress, economy, war, societal changes, politics,...
- What we feel about the future is expressed as
 - Mental attitude of optimism or pessimism
 - Active or passive hope, depending on our goals and empowerment
 - Or perhaps despair and hopelessness



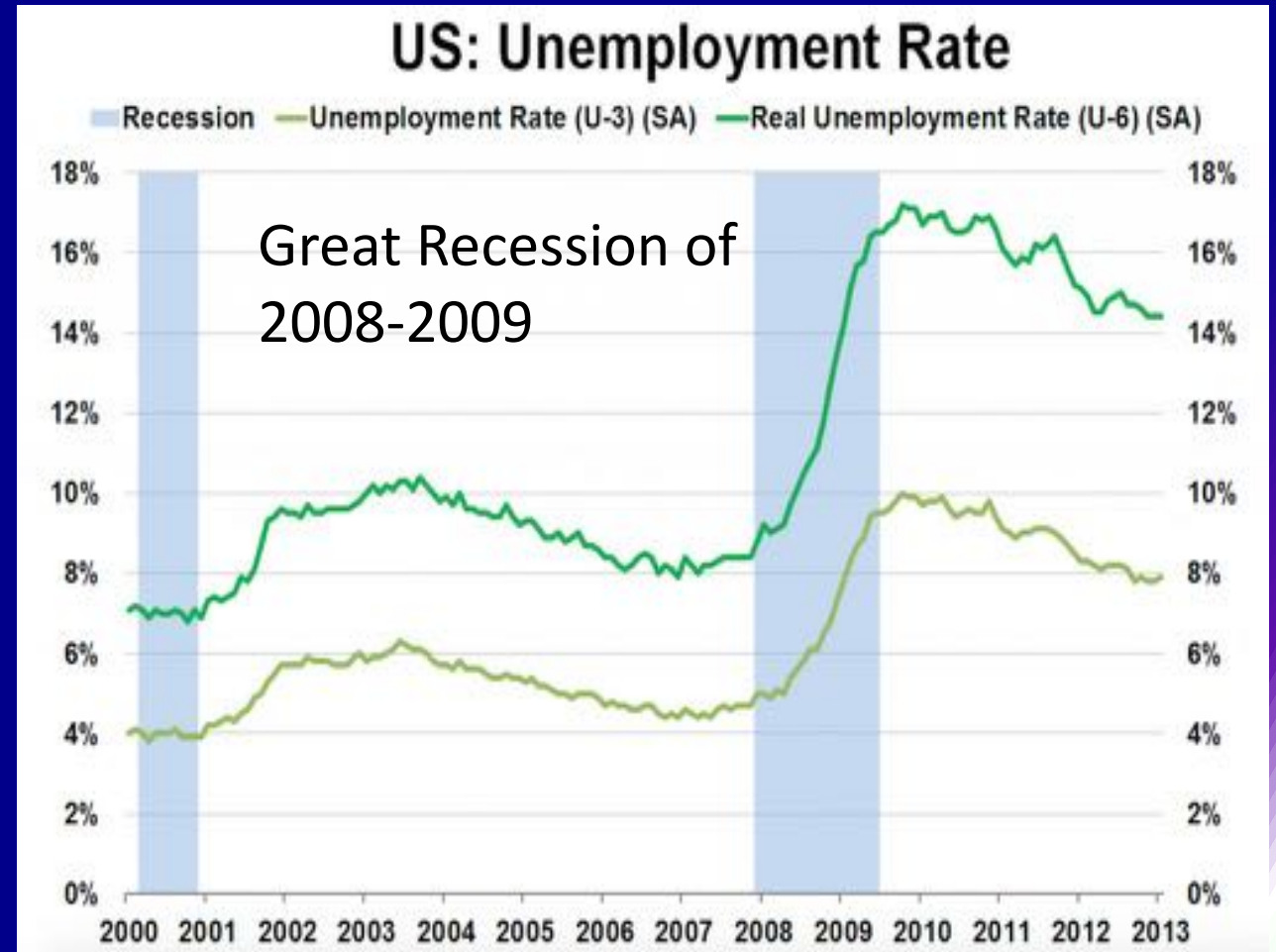
Gerry Wood will talk on the “Science of Hope” on June 7
Chick Keller will talk on “Technology and Hope” on July 19

A brief history of optimism in the US

- Two recent periods of optimism
 - Post WWII
 - Post Cold War
- These periods coincide with
 - Stable unemployment
 - Stable inflation
- Cause or effect?

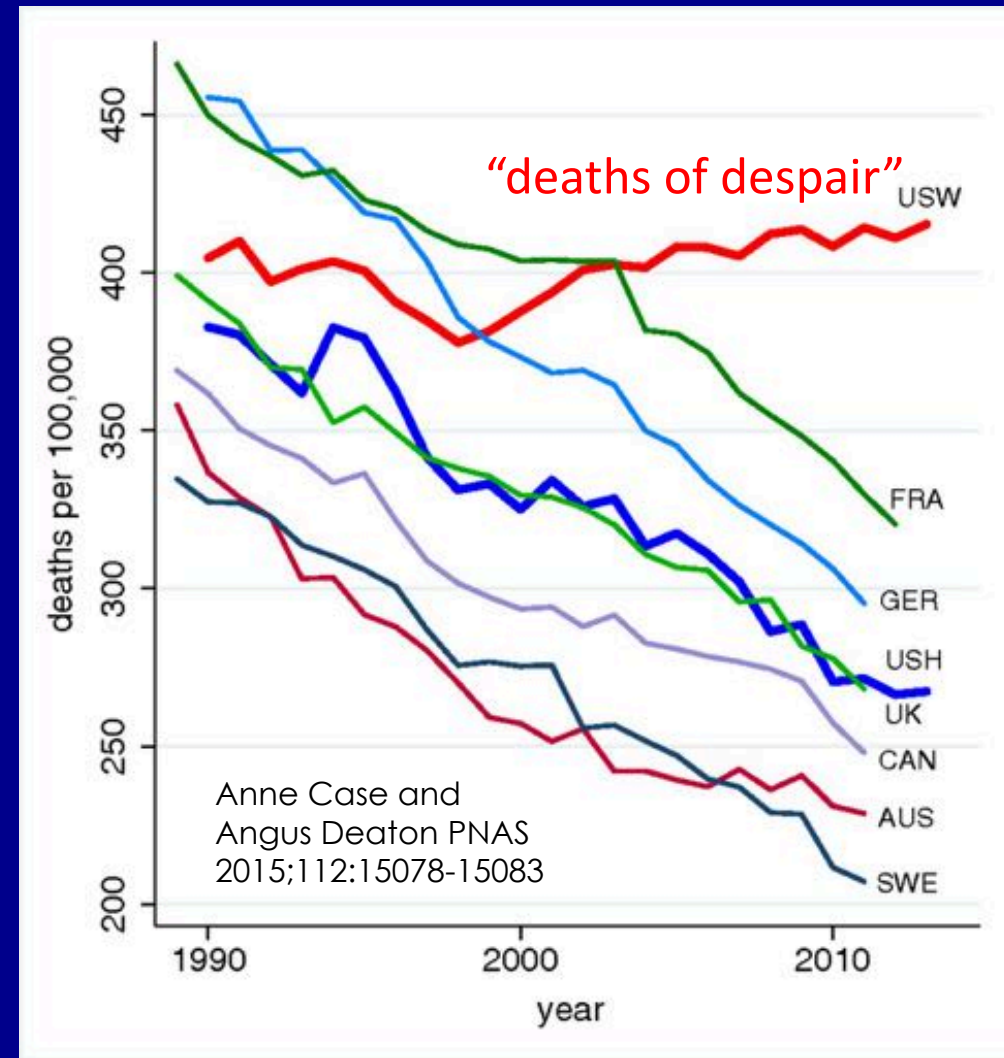


But more recently, optimism has faded



Well before 9/11 and the Recession, something else was going on

- In 2015, sociologists identified something no one else had noticed
 - Death rate of white Americans aged 45-54 stopped decreasing in 1999
 - No other Western nation saw this phenomenon
 - US African-Americans and Hispanics did not show this phenomenon
 - Researchers tie these deaths to drug and alcohol poisoning, suicide, chronic liver diseases



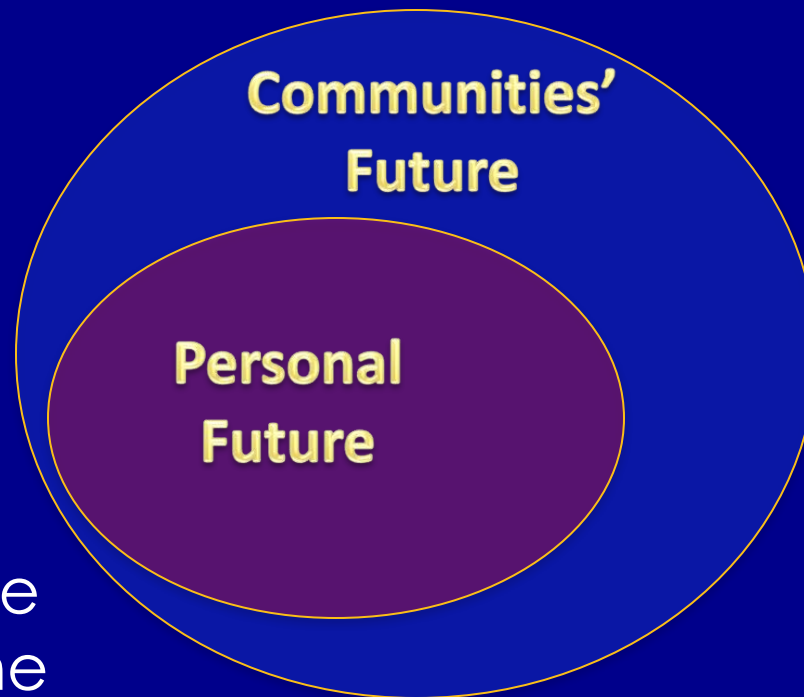
**Bob Reinovsky will talk about
"Hopelessness" on June 28**

All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).

But we're not here to focus on explaining data trends based on sociology, economics, or politics

We want to talk about how we feel about the future:

- Hope?
- Despair?



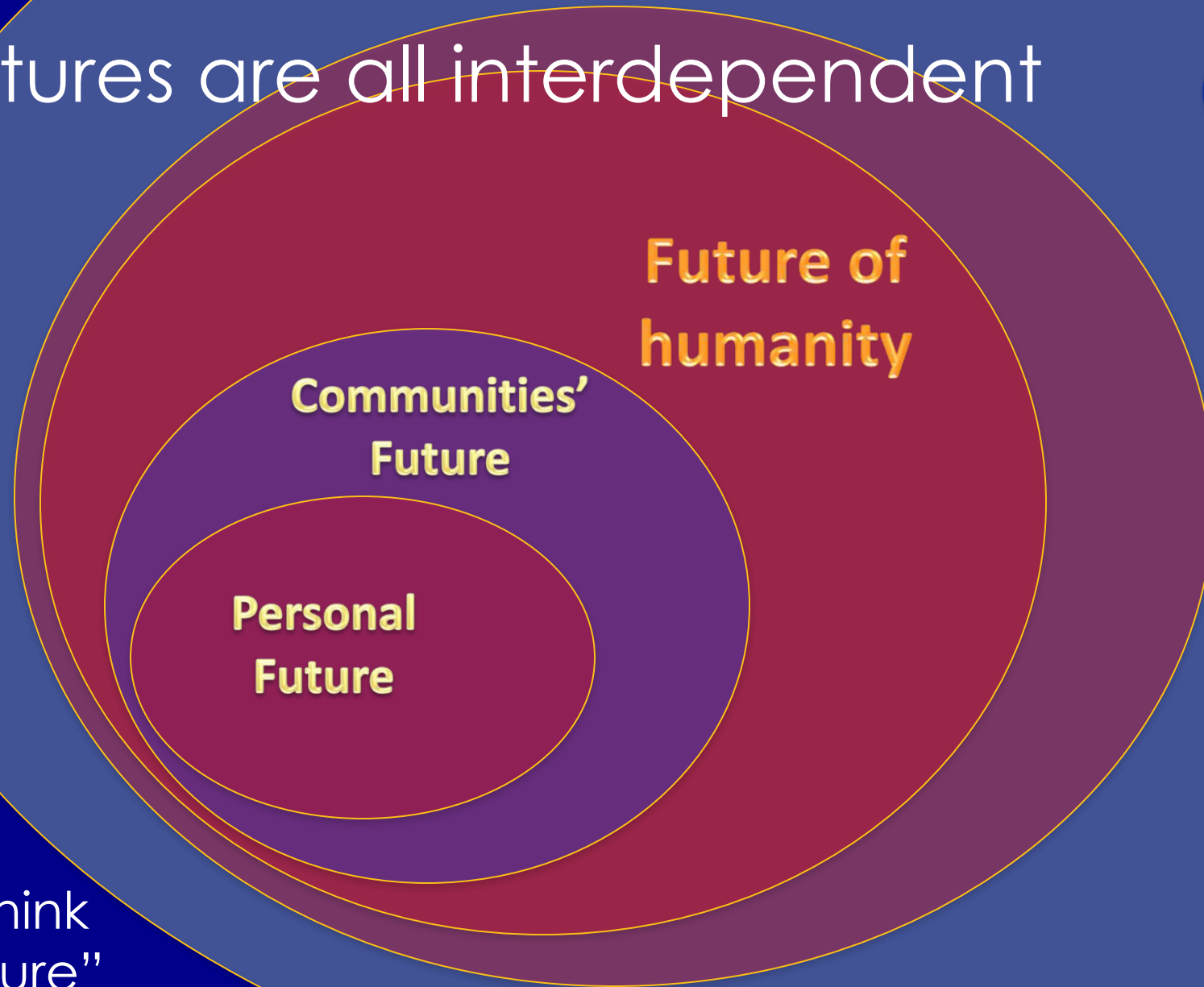
Our personal future is embedded in the future of our community and nation

These futures are all interdependent

Cosmic
Future

Usually, if we think about the future, we think about

- Our personal future
- The future of our family and friends
- The future of our community



Rarely do we think about "The Future" at larger scales ...

These futures are all interdependent

Usually, if we think about the future, we think about

- Our personal future
- The future of our family and friends
- The future of our community

Rarely do we think about “The Future” at larger scales ... because it’s hard to believe it matters much right now

Cosmic Future

Future of humanity

Communities' Future

Personal Future

Does this really affect us right now?

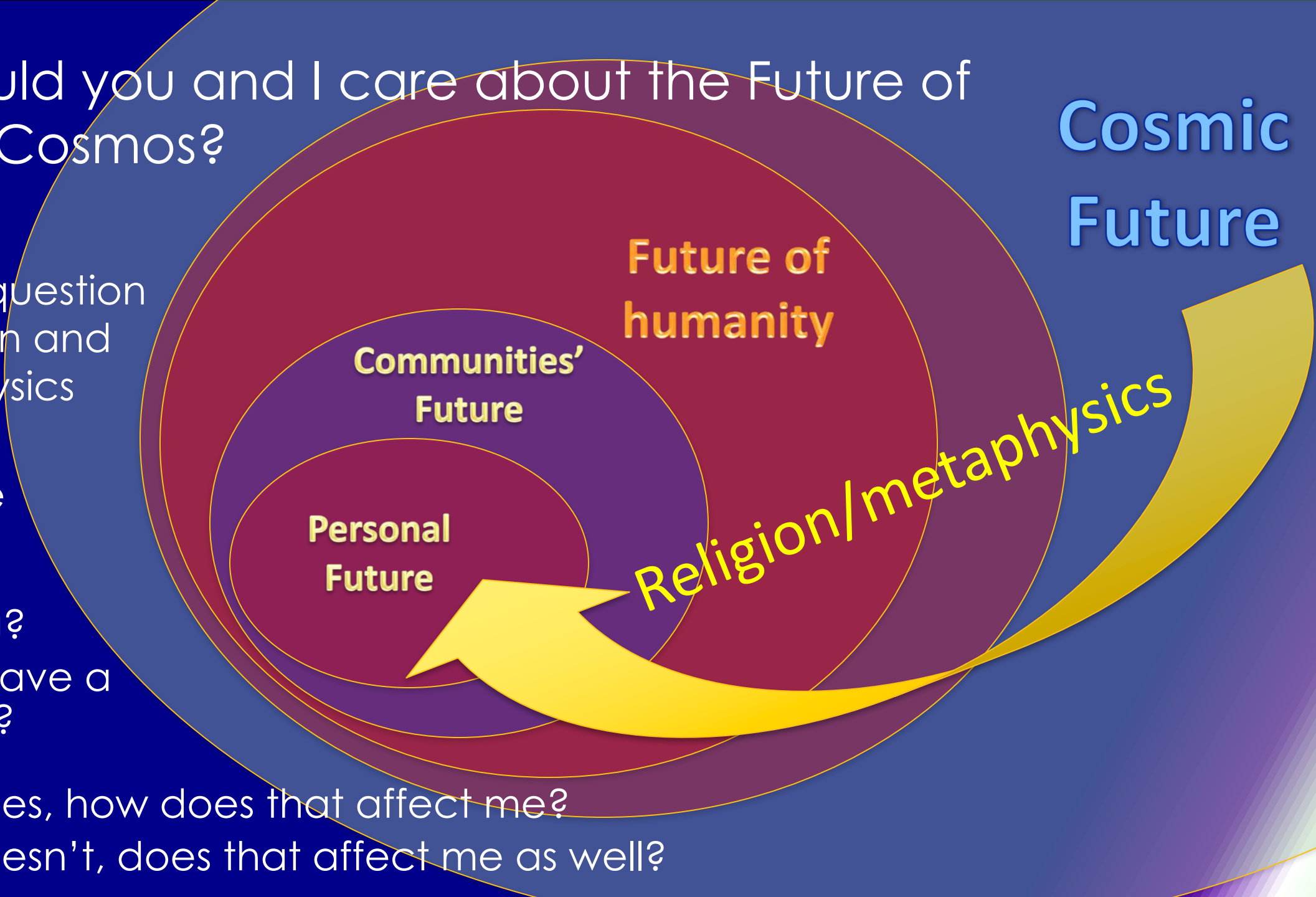
Should you and I care about the Future of the Cosmos?

Cosmic Future

This is a question of religion and metaphysics

Does the Universe mean anything?
Does it have a purpose?

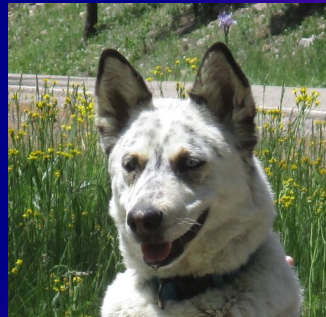
If it does, how does that affect me?
If it doesn't, does that affect me as well?



Where does “meaning” come from?

- *Meaning involves pointing to something else*
 - “The meaning of a system lies outside the system” – Jonathan Sacks, *The Great Partnership: God, Science, and the Search for Meaning* (2011)
 - The meaning of an utterance is not inside the utterance itself
 - Your life has meaning if you commit to something outside yourself
 - “The sense of the world must lie outside the world.” – Ludwig Wittgenstein
- So if the Universe has meaning, it can only be found *outside the Universe*

“perro”



Some thinkers claim that science demonstrates that the Universe is meaningless

- “The universe we observe has precisely the properties we should expect if there is, at bottom, no design, **no purpose**, no evil, no good, nothing but blind, pitiless indifference.” -- Richard Dawkins
- “That Man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and his beliefs, are but the outcome **of accidental collocations of atoms**... that the whole temple of Man’s achievement must inevitably be buried beneath the débris of a universe in ruins — all these things, if not quite beyond dispute, are yet so nearly certain, that no philosophy which rejects them can hope to stand.” – Bertrand Russell
- “The more the universe seems comprehensible, the more it also seems **pointless**.” – Steven Weinberg



Of course! They see nothing outside the Universe

What is Reality? A meaningless universe of constantly rearranging atoms?

- Is anything *new* really possible?
- Science explains everything in terms of the past*
 - Causes must precede effects
 - All apparently “new” phenomena are simply rearrangements of existing inanimate (dead) entities

Physics

CHEMISTRY

LIFE

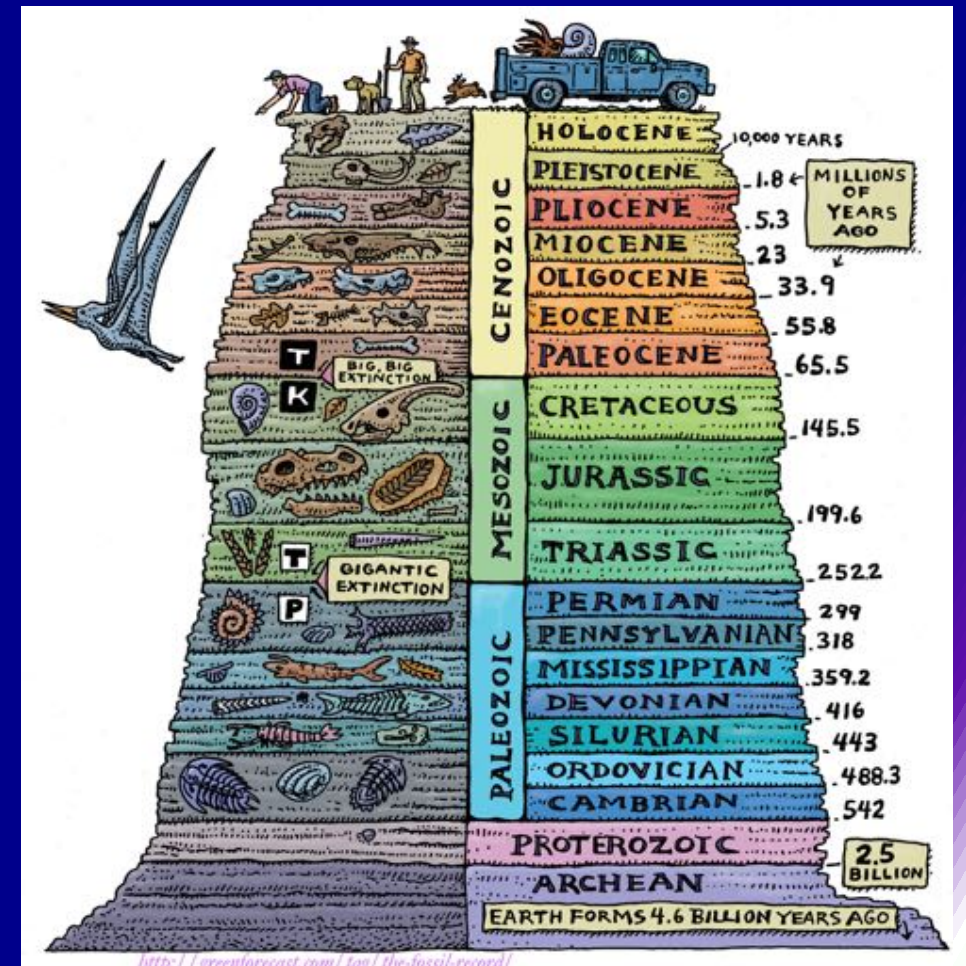
Consciousness

Anything new here?

*John Haught, *Resting On The Future* (2015)

But now let's consider Evolution

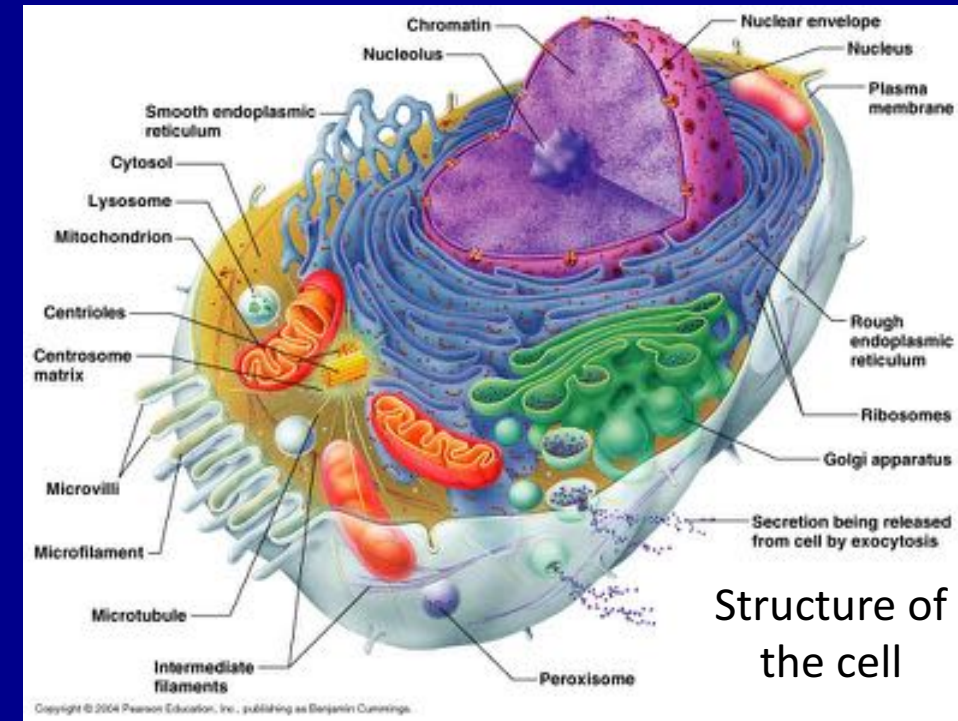
- Evolution: the explanation of the history of life on Earth
 - Natural selection, random mutation, genetic drift, gene flow
- What is the significance of Evolution?
- Is Evolution merely the result of long-term mechanistic rearrangements of atoms...?
 - No deeper significance
 - “Nothing new here”



...or instead...

...is Evolution the way *truly new phenomena* appear on planet Earth and throughout the Cosmos?

- The Evolution of Life gives rise to a diversity of forms and new phenomena
 - Biological networks at many scales
 - Cooperative organisms (organelles, symbiosis) with function and purpose
 - Information and complexity
 - Consciousness, Mind, will and intention
- These are new phenomena with new causes and effects
- Compared to “Cosmic Pessimism”, perhaps Evolution gives us a basis for hope
- Is Evolution the process by which God is shaping The Future?



Morris Pongratz will talk on “Evolution and Hope” on June 14
Prof. John Haught (Georgetown U.) will visit and speak on June 22 and 23

What lies outside the Cosmos?

**Cosmic
Future**

Persons of faith believe the meaning of the Universe is to be found in Reality beyond the Cosmos

**Future of
humanity**

**Communities'
Future**

**Personal
Future**

Hope

Reality

Perhaps Hope is a sign that the Cosmic Future, given meaning by Reality, has taken hold of us

What lies outside the Cosmos?

**Cosmic
Future**

Persons of faith believe the meaning of the Universe is to be found in Reality beyond the Cosmos

**Future of
humanity**

**Personal
Future**

Hope/promise

Reality

Perhaps Hope is a sign that the Cosmic Future, given meaning by Reality, has taken hold of us – even in the midst of distress

Our invited speaker, John Haught, will discuss these topics when he visits on June 22 and 23

- Distinguished Research Professor of Theology, Georgetown University
 - Specialty is systematic theology, with particular interest in issues of science, cosmology, evolution, ecology, and religion
 - Author of more than ten books and numerous articles

Los Alamos talks:

- “Science, Religion, and Cosmic Purpose” (June 22, 2017)
- “Evolution and Faith: What is at Stake” (June 23, 2017)



Questions for now – and all this summer

- If the Universe has meaning and purpose, does that affect me right now?
- If the Universe is meaningless, what are the consequences for me right now?
- Is Science capable of identifying a meaning or purpose of the Universe?
- Does my hope or hopelessness depend on the intelligibility of the Universe?
- Must Evolution have a direction to have meaning?
- Can The Future influence us right now?