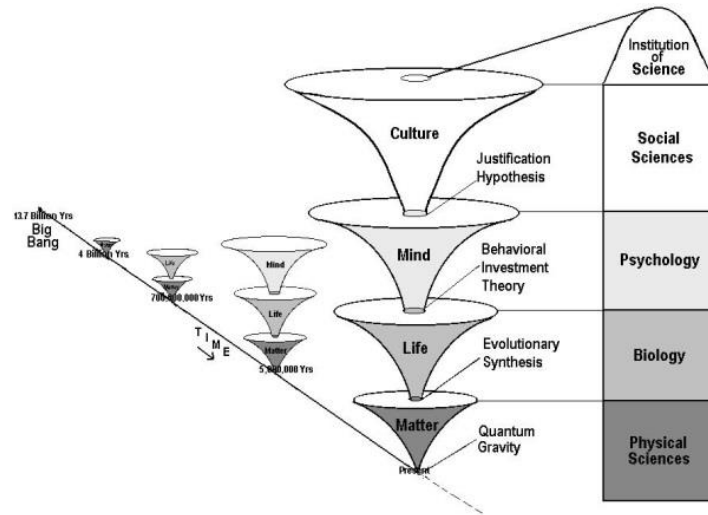


# InterSubjective Mental Behaviorism: A Holistic Philosophy via the ToK System



Mapping Objective Behaviors, Subjective Experiences of Being, and  
Intersubjective Knowledge Systems



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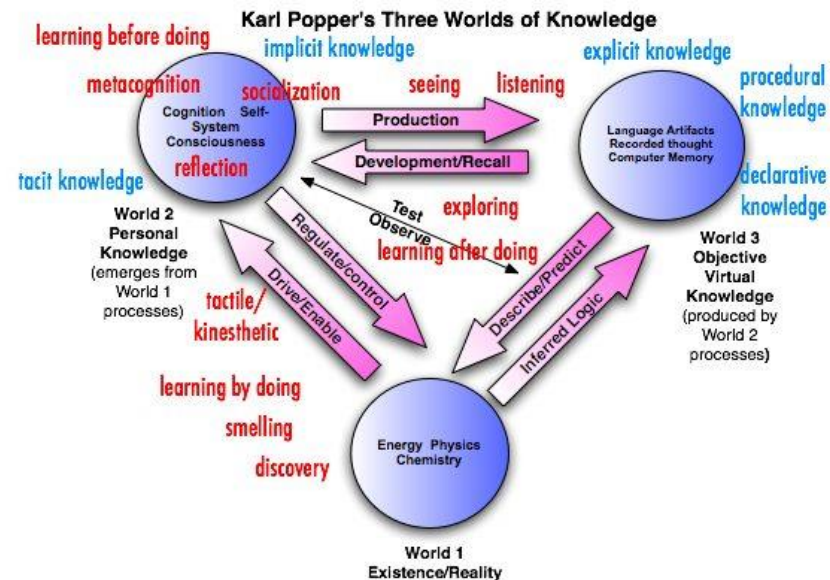
# Overview

Many philosophers have noted that considerations regarding human knowledge can be effectively captured by taking into account three broad angles or positions: 1) the objective (i.e., the world as it exists independent of subjective knowers); 2) the subjective (i.e., first person experience and knowledge of the world); and 3) the intersubjective (i.e., what groups of humans share as knowledge).

This talk introduces Intersubjective Mental Behaviorism as a philosophical account grounded in the Tree of Knowledge System, which offers a new way to understand the linkages between these domains and operate from a more holistic conception of knowledge.

# The Nature of the Problem: Karl Popper's Three Worlds

*“There is the physical universe, World 1, with its most important sub-universe, that of the living organisms. World 2, the world of conscious experience, emerges as an evolutionary product from the world of organisms. World 3, the world of products from the human mind, emerges as a product from World 2. In each of these cases, the emerging product has a tremendous feedback effect upon the world from which it emerged.”*



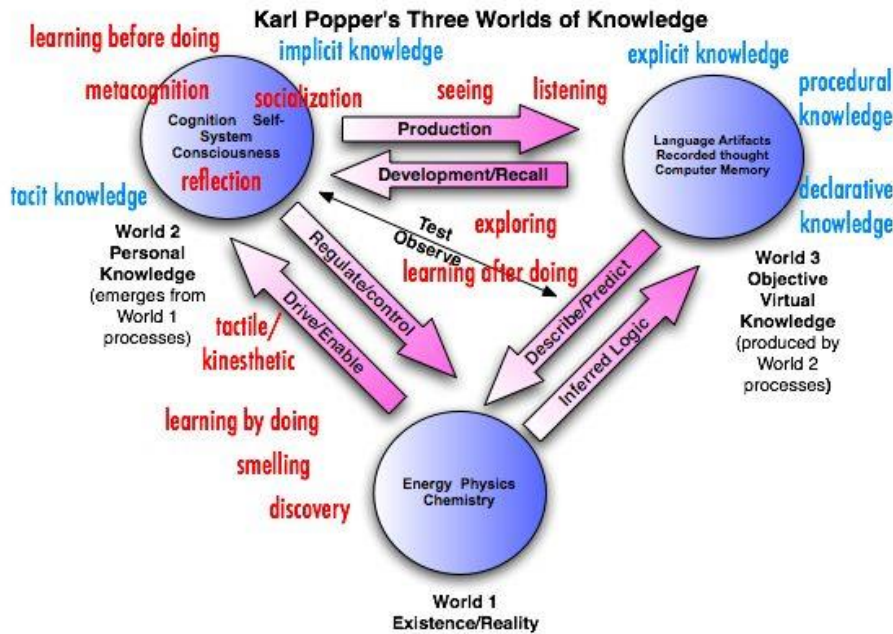
# The Fundamental Question is:

*How are the Three Worlds of the Objective, Subjective Consciousness, and Explicit Cultural Knowledge Systems Connected?*

*How can it be that mathematics, being after all a product of human thought independent of experience, is so admirably adapted to the objects of reality?*

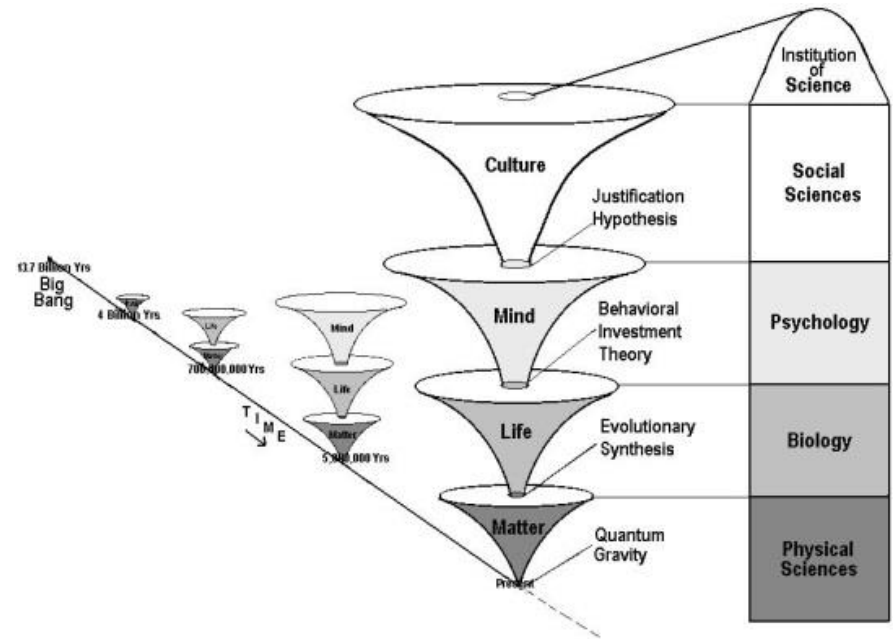
Albert Einstein

# The ToK System as a Framework Solution



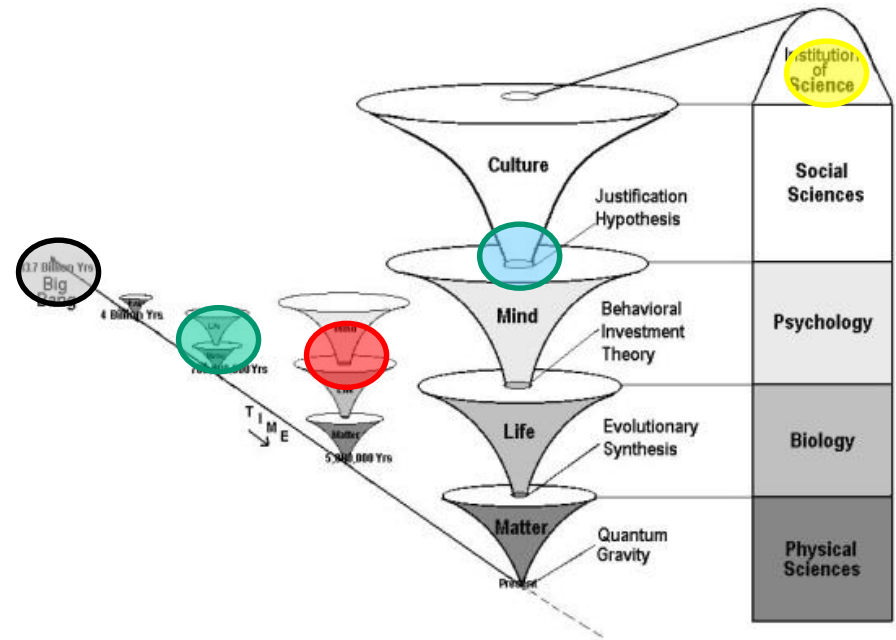
From Popper's Three Separate Worlds

To a new holistic Theory of Knowledge



# Five Key Links

- 1) From Energy to Matter
- 2) From Matter to Life
- 3) From Life to Mind
- 4) From Mind to Culture
- 5) From Culture to Scientific Knowledge Systems

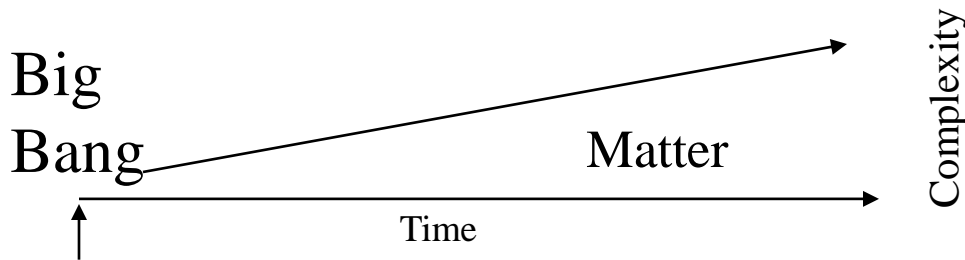


# The First Link

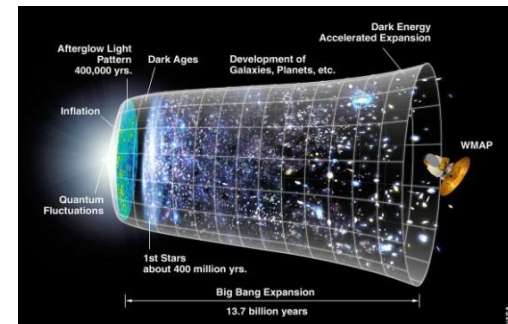
Physics (and the material sciences in general) operate from an **Objective Behavioral Metaphysics**

that includes:

*Objects & Fields (objects in relational space),  
Causes & Effects (time and energy transfer)*



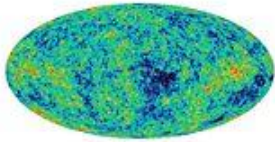
- The emergence of the “EnergyMatterSpaceTime” Grid
- Behavior =  $f(O, E)$  (is a function of object and environment)
- $X(X^0)_{t1} - X(X^0)_{t2}$  (This equation represents how to mathematically represent changes in object-field relations)



# MATTER

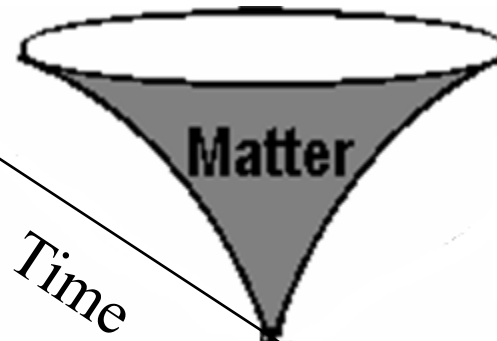
Matter is frozen chunks of energy, which, along with space and time, emerged following the Big Bang. Nonliving material objects range in complexity from subatomic particles to large organic molecules. **The physical sciences** (i.e., physics, chemistry, geology, astronomy) describe the behavior of material objects.

Big Bang



Energy

Chemistry

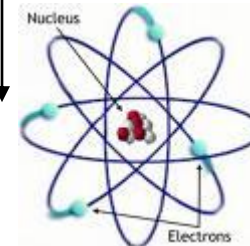


Complexity



General  
Relativity

Size

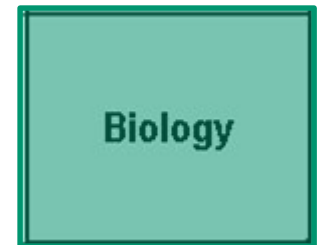
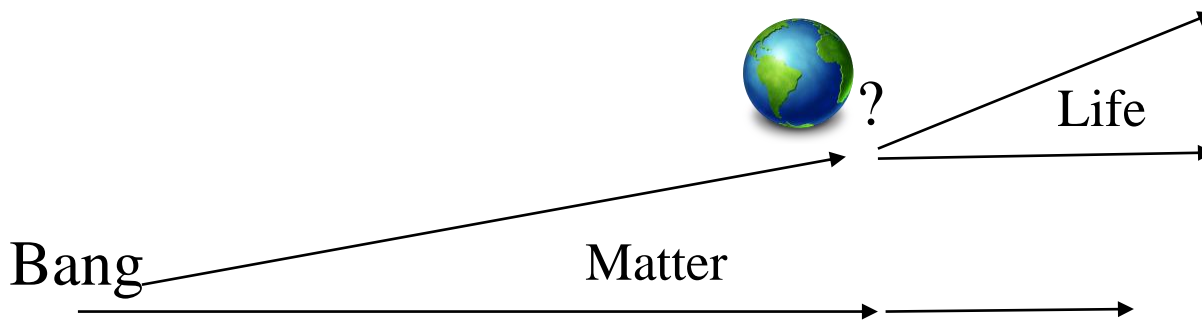


Quantum  
Mechanics



# The Second Link

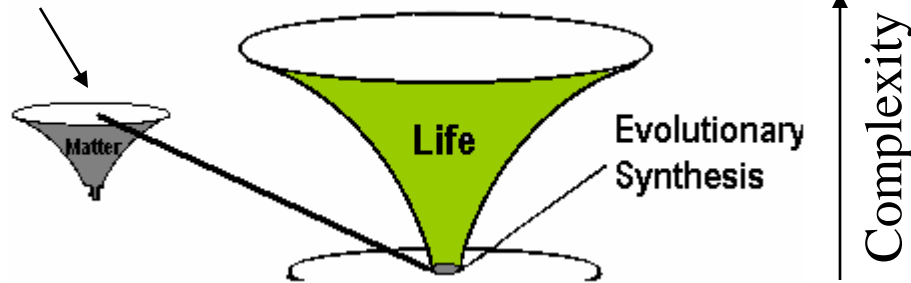
Biology (the Life Sciences) operate from an  
**Bio-Organic Behavioral Metaphysics**  
*In addition to Material Behavioral Causes,  
there is the emergence of causation from  
Genetic/Epigenetic Information Processing, which gives  
rise to Living Behavior Patterns.*



# LIFE

Life is the second dimension of complexity. Although how life initially emerged remains a mystery, living organisms are qualitatively more complex than inanimate objects. They have evolved via natural selection operating on genetic combinations, and obtain their organization via genetic/epigenetic information processing.

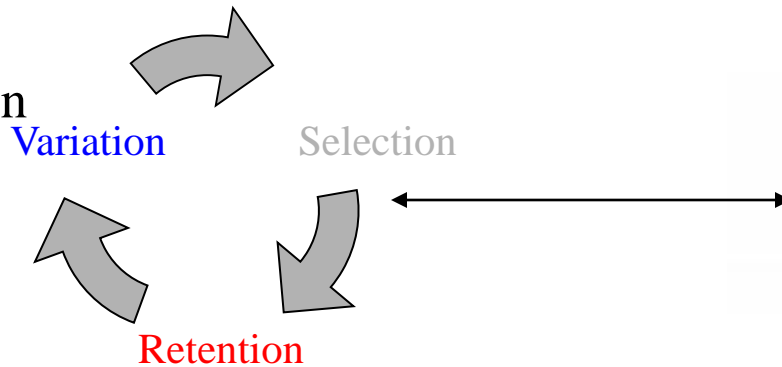
“Spark of Life” on Earth ~4 BYA



Tree of Life



Natural Selection is the feedback loop that builds biological complexity

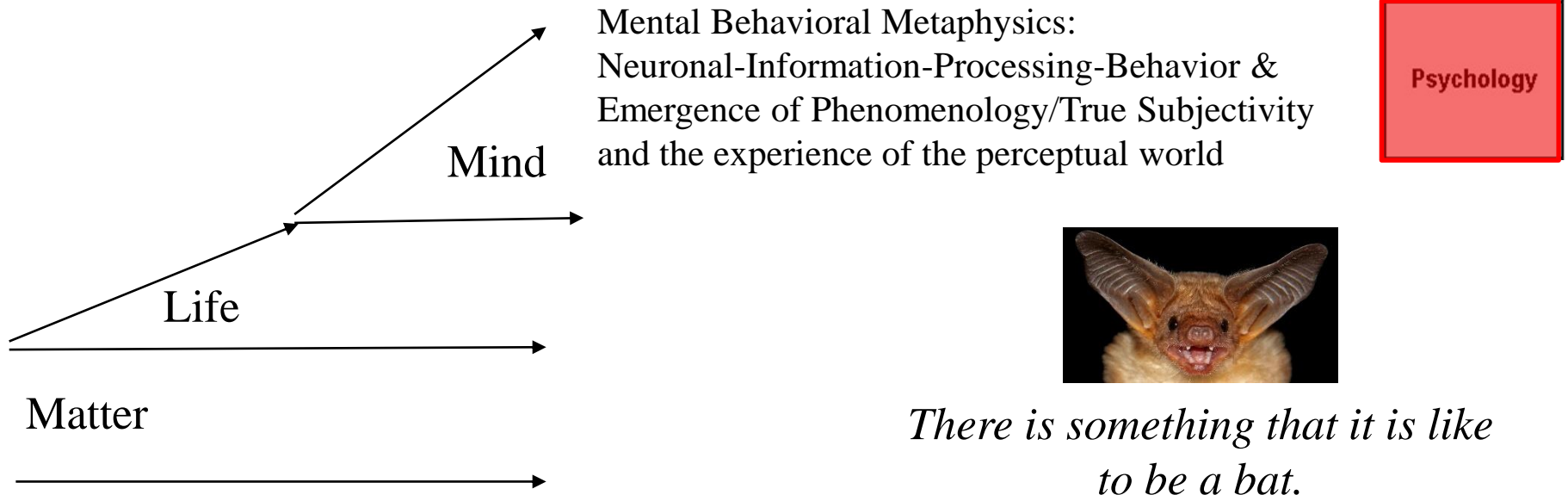


Genes are the fundamental units of organic complexity

# The Third Link

Basic/Comparative Psychology operates from a  
**Mental Behavioral Metaphysics:**

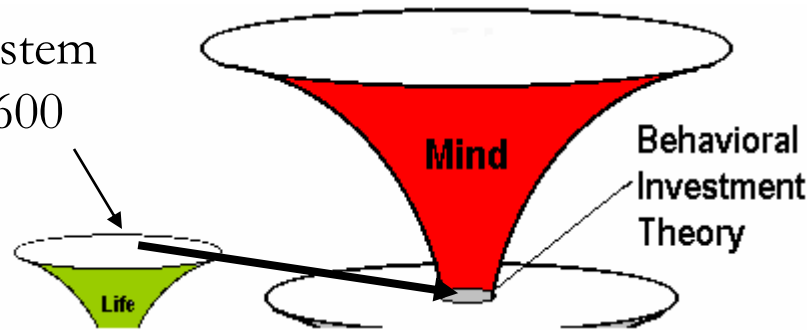
In addition to material and genetic information processing,  
there is also neuro-information processing and the  
emergence of true (but fully contained) subjectivity.



# MIND

Mind is the third dimension of complexity on the ToK. It consists of the set of mental behaviors and includes overt actions, cognitions, and consciousness. Mental Behaviorism and Behavioral Investment Theory provide the framework for understanding animal mental behaviors.

The Nervous System first emerges ~ 600 MYA

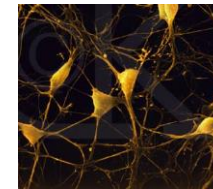
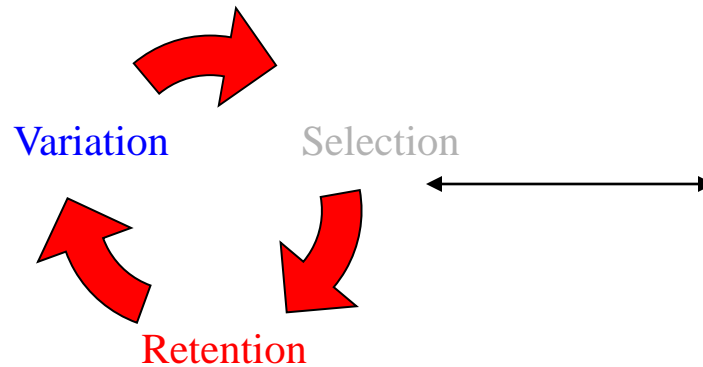


Complexity ↑



Emergence of Experiential Consciousness.

Behavioral Selection is the feedback loop that builds mental complexity.



Information exchanged in neural networks are the fundamental units of mental complexity

# The Fourth Link

Human/Social Science operates from a

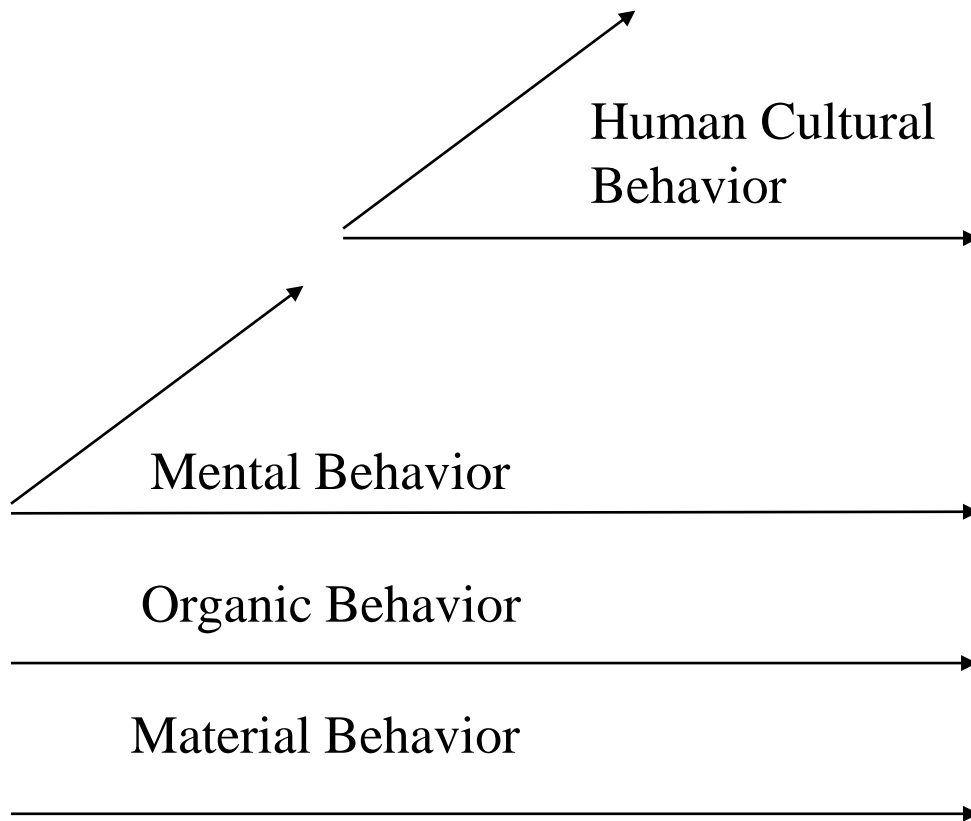
**Cultural Behavioral Metaphysics:**

Explicit Intersubjective Knowledge/Justification Systems

[Gives rise to Problem of Double Hermeneutic in Science (Blaine)]

Cultural Metaphysics:

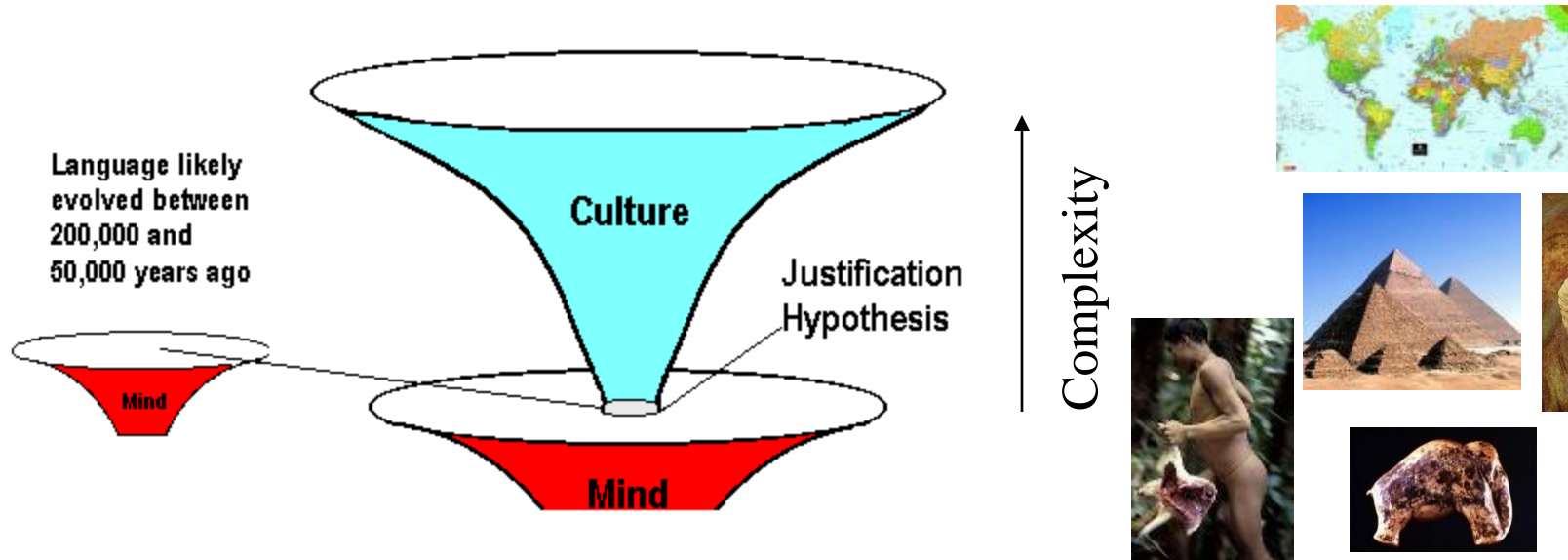
Symbolic-Information-Processing-Behavior &  
Emergence of True/Explicit InterSubjectivity



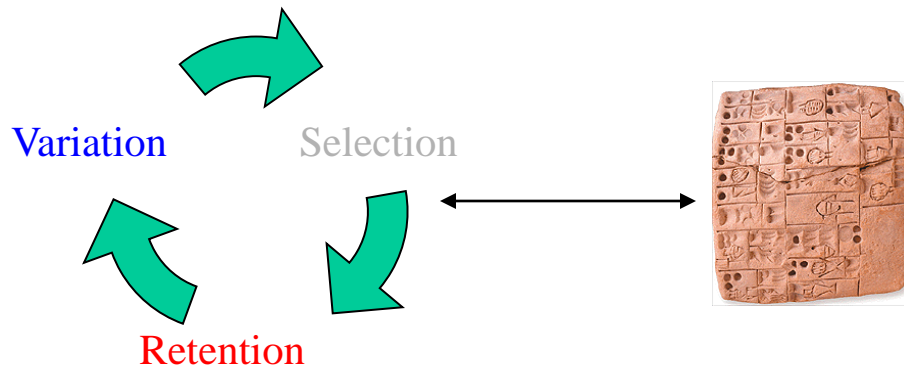
This is InterSubjective  
dialogue

# CULTURE

Culture is the fourth dimension of complexity on the ToK. It refers to the shared set of beliefs and values that coordinate action and are considered as systems of justification. Justification systems link human language, self-consciousness, and the evolution of Culture.

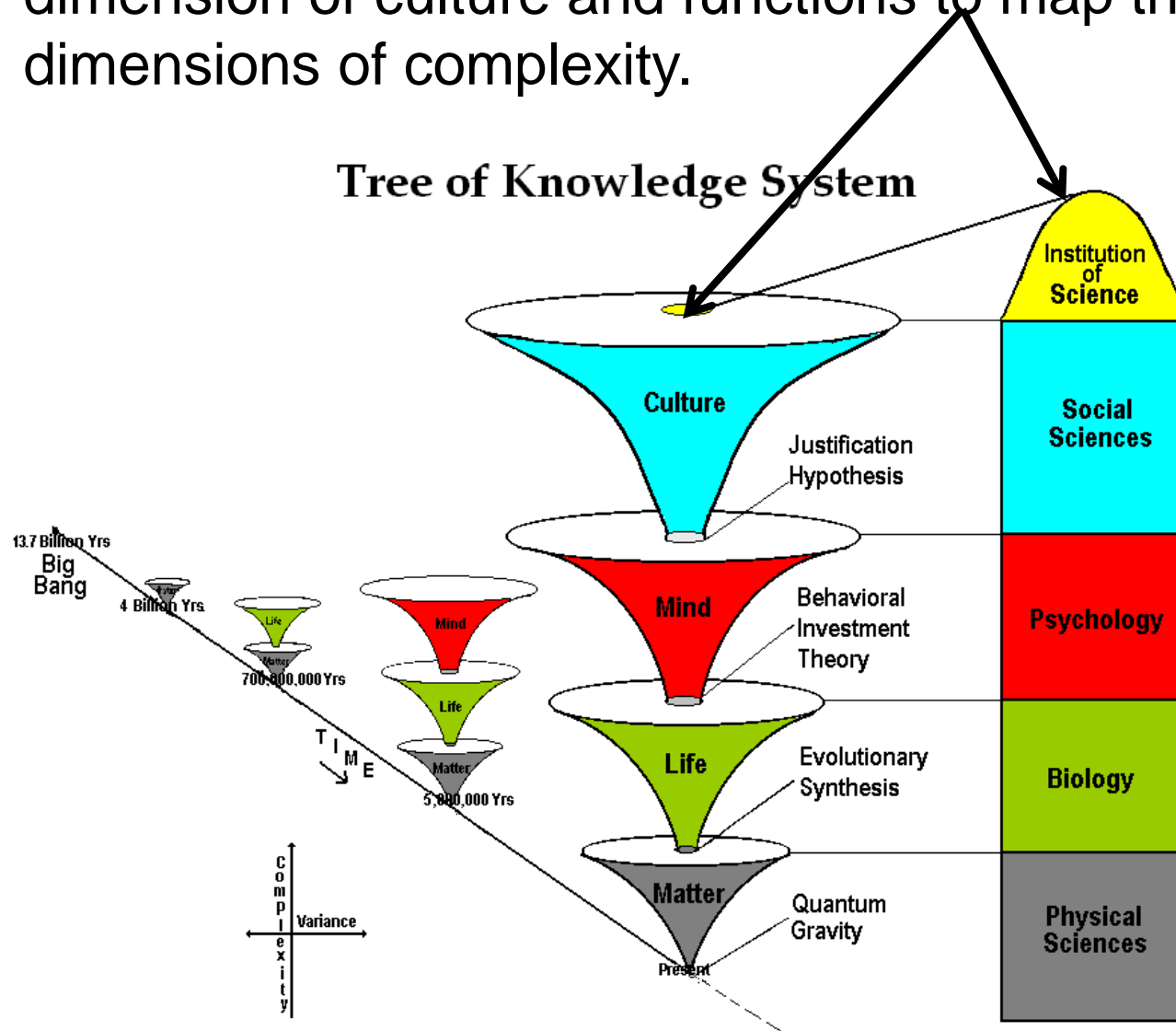


The evolution of justification systems is the feedback loop that builds cultural complexity.



Symbols are the fundamental units of cultural complexity

**The ToK System** depicts how science exists in the dimension of culture and functions to map the four dimensions of complexity.





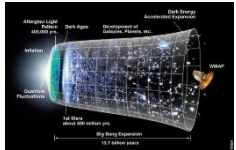
# The Fifth Link:

## Building Justification Systems Scientifically

### Emergence of Modern Science:

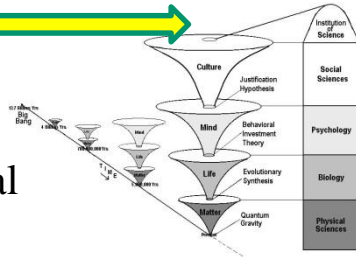
Behavioral Metaphysics,

Mathematical mapping of behavioral change, use of scientific method to determine elements and causes.



$$F = ma;$$

$$E = mc^2$$



### Reflective Philosophy:

Greeks search for

*Justifiably Apt and Explicit*

*Ontological/Epistemological Systems*

*Ancient Civilizations*

Cultural Metaphysics:

Symbolic-Information-Processing-  
Behavior &

Emergence of True/Explicit  
InterSubjectivity

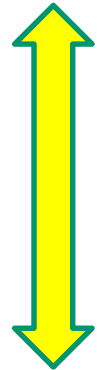
*Paleolithic*

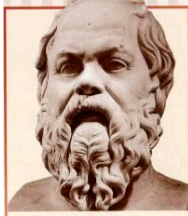
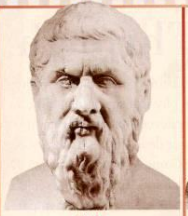
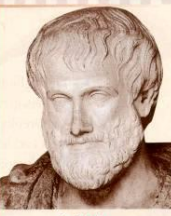
Human Cultural  
Behavior

Mental Behavior

Organic Behavior

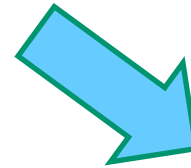
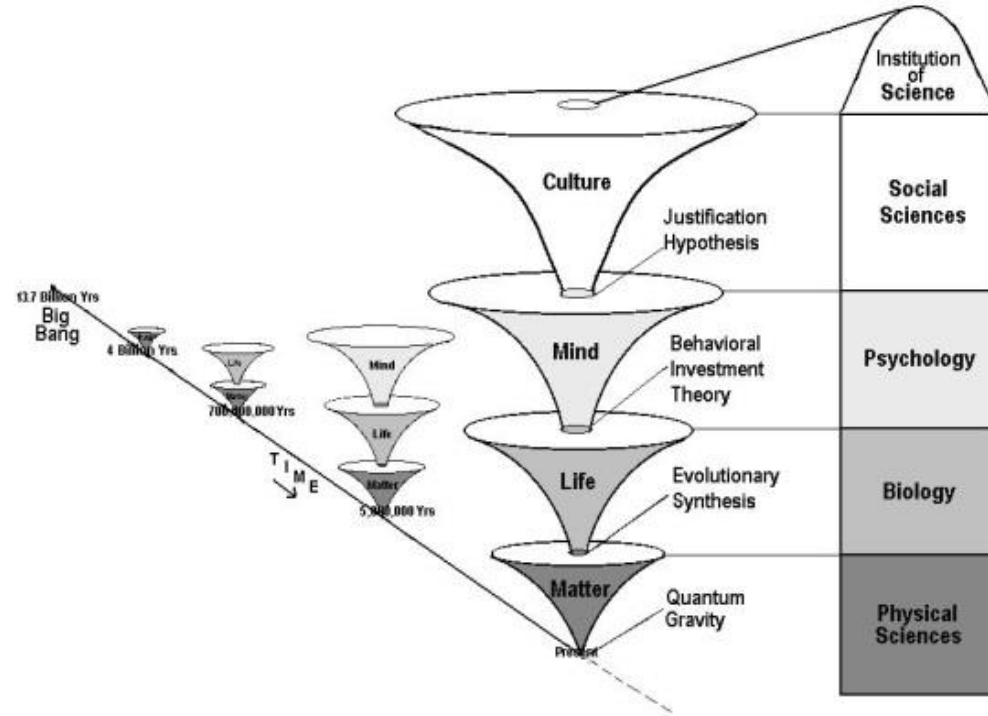
Material Behavior



HISTORY MAKERS		
		
<b>Socrates</b> 469-399 b.c.	<b>Plato</b> 427-347 b.c.	<b>Aristotle</b> 384-322 b.c.
Socrates was one of the most powerful thinkers in history. He encouraged his students to examine their beliefs. Socrates asked them a series of leading questions to show that people hold many contradictory opinions. This method of teaching by a question-and-answer approach is known as the <i>Socratic method</i> . He devoted his life to gaining self-knowledge and once wrote, "There is only one good, knowledge; and one evil, ignorance."	Born into a wealthy Athenian family, Plato had careers as a wrestler and a poet before he became a philosopher. He studied with Socrates. After his teacher died in 399 b.c., Plato left Greece and traveled to North Africa and Italy. He later returned to Athens and founded a school called The Academy in 387 b.c. The school lasted for approximately 900 years. It was Plato who once stated, "Philosophy begins in wonder."	Aristotle, the son of a physician, was one of the brightest students at Plato's academy. He came there as a young man and stayed for 20 years until Plato's death. In 335 b.c., Aristotle opened his own school in Athens called the Lyceum. The school eventually rivaled the Academy. Aristotle once argued, "He who studies how things originated and came into being . . . will achieve the clearest view of them."



# Making it Personal



My Psychological **FACTTS**

# Starting with My View from Humanity

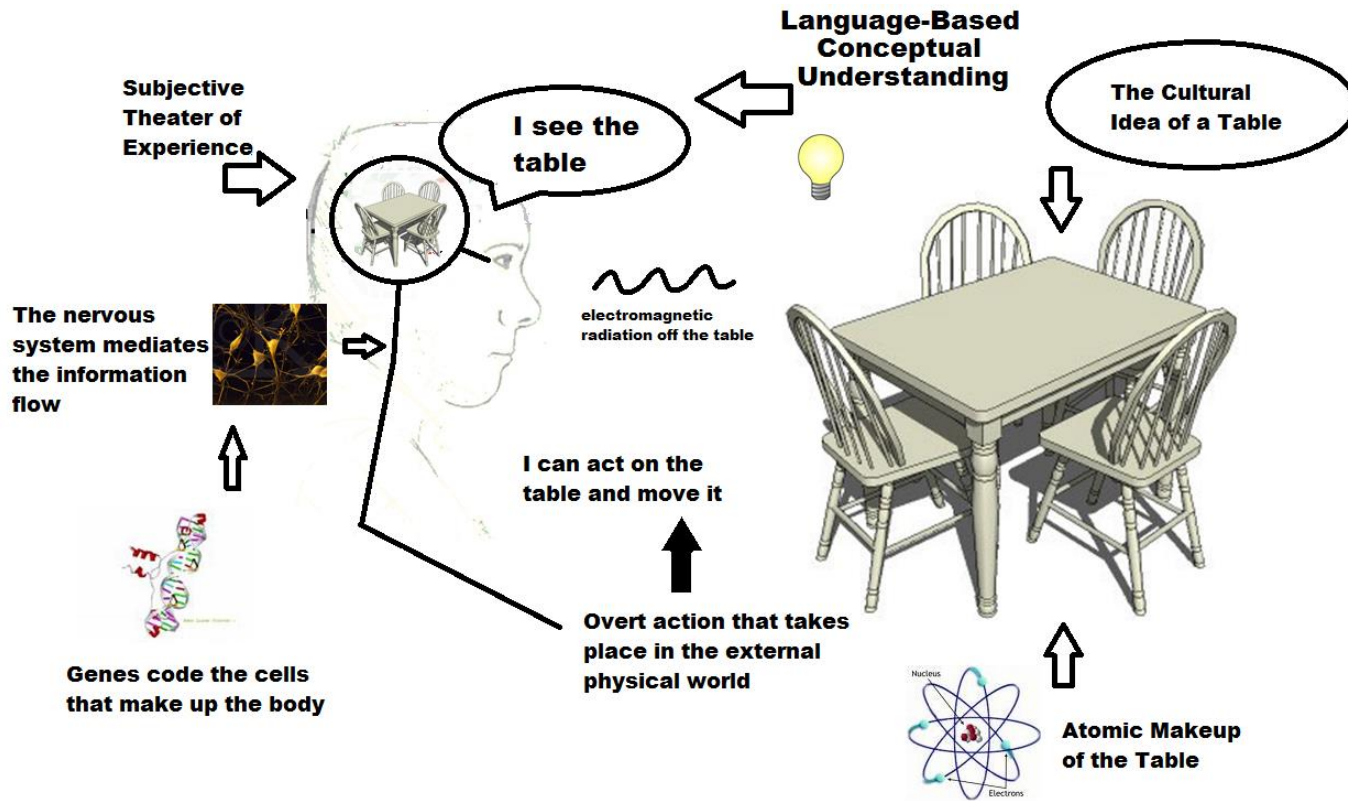
- I. I have a phenomenological, subjective experience of being. It is my small “e” empirical reality and consists of bring information in through my senses, which form perceptual wholes. I also have drives and emotions. And I engage in imaginal wonderings, all of which form my subjective theater.
- II. I behave overtly in the world, via coordination of muscular movements.
- III. I have a language-based, conceptual understanding of the world and being-in-it that I have developed through dialogue, first with others and then myself.
- IV. I was “thrown in to the world” and now I wander from situation to situation.

# We can call these my Psychological F ACT T S

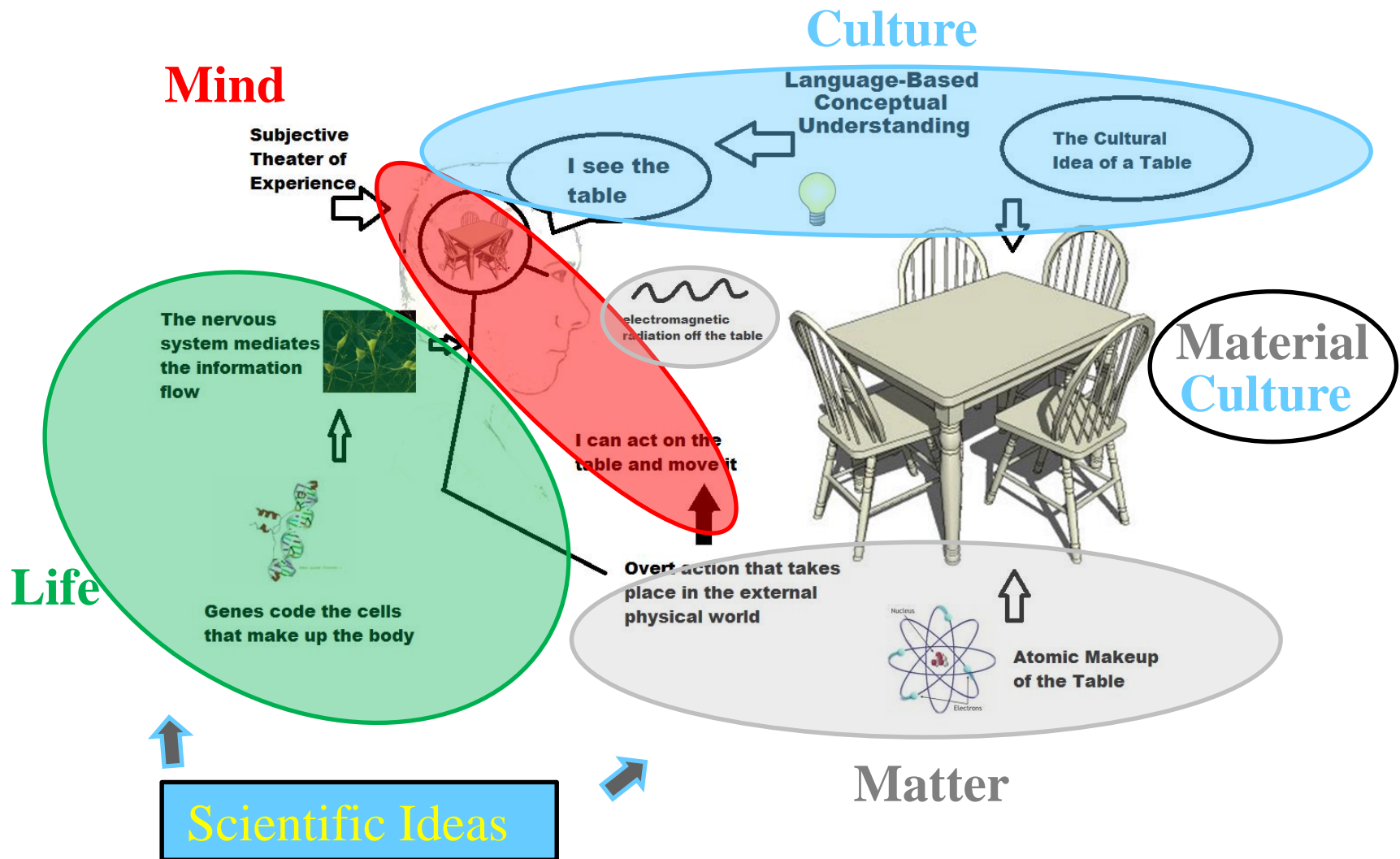
- I. Feelings (my subjective theater)
- II. ACTions (my acting in the world)
- III. Thoughts (my verbal narrative and explicit reasoning)
- IV. Situations (the place in the world that I find myself)

Here I am, experiencing this conference,  
giving a talk, walking around the room

# Mapping My Version of Reality

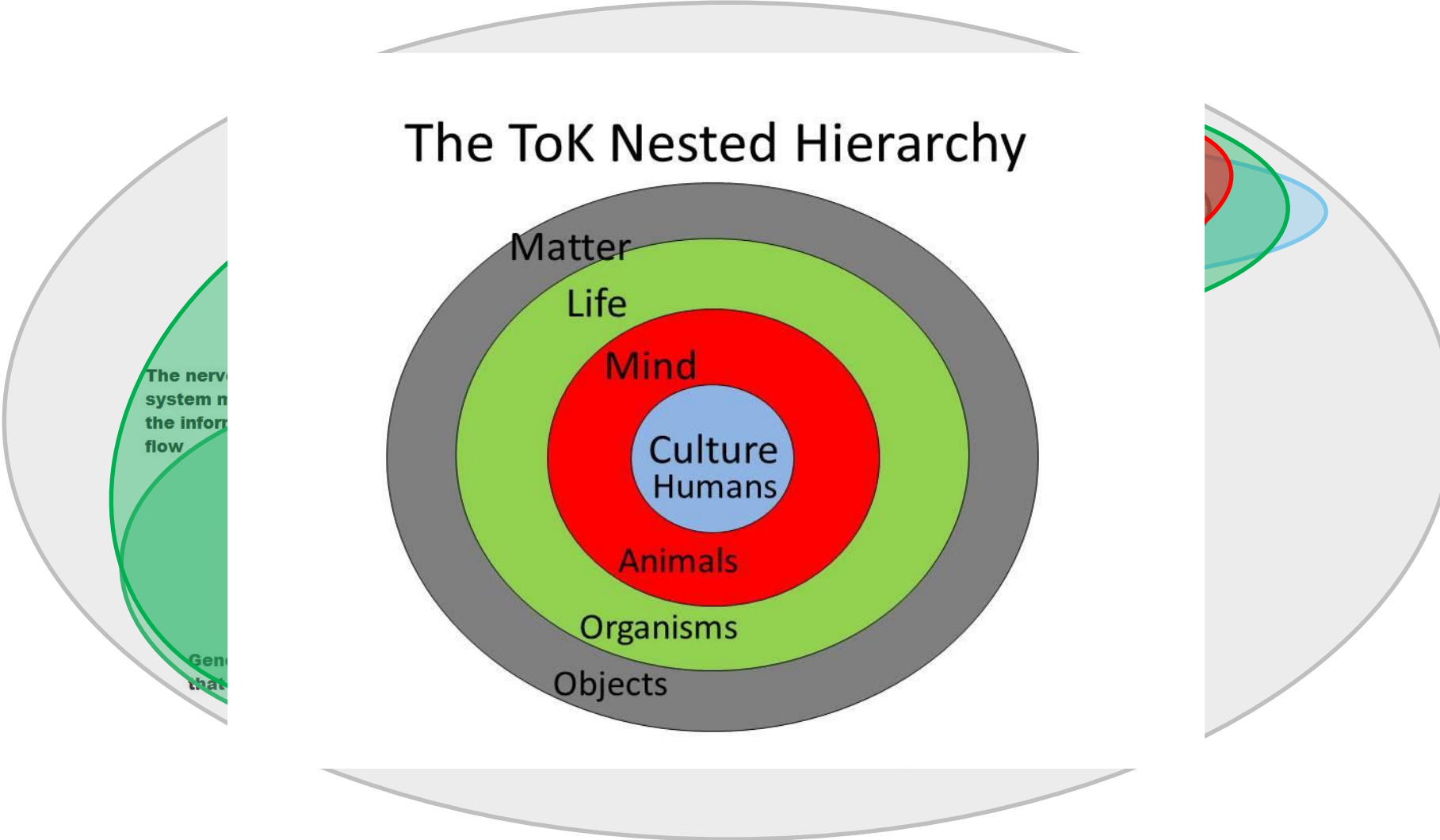


# Mapping Reality in the Four Dimensions of Behavior According to the ToK System



# The Nested Version: Culture within Mind within Life within Matter

The ToK Nested Hierarchy



# What is the relationship between these “Three Worlds”?

- Where does my subjectivity come from?
- How do I know if my conceptual understandings are capital T truths or just what other people tell me and what I happen to believe?
- How do I physically act on the world and how does it act on me?
- What is the relationship between my mental and cultural worlds and the natural science account of “reality”?

# Conclusion

- Historically, psychology has struggled to find a complete philosophical frame that can hold its subject matter. Prominent frames have included various forms of: I) Behaviorism (e.g., reductive/classical, methodological, radical); II) Mentalism views (e.g., cognitive, constructivist, and phenomenological), and III) Intersubjective (e.g., social constructionism, post modernism, feminist). None of the frames are adequate by themselves, and there has been no previous way to effectively link them.

The ToK System offers a way to see the whole in a way that allows for an Intersubjective Mental Behaviorism.