

# Thoughts on the future of human evolution

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# Introduction

- We are minds, we are a mind - The mind is the ultimate realm of our existence individually and collectively.
- Human evolution as the evolution of mind.

➤ The Noetic perspective:

The mind is the nexus of future human evolution.

Noetic: derived from Greek:

*noētikos* - νοητικός - mental, *nous* - νοῦς - mind.

Human identity – the very concept of what a human is, is apparently at a transformative junction.

### Markers of the junction:

- Accelerating change, information explosion and hyper connectivity.
- The dissolution of the unique place of the human in the universe.
- The prospects of radical enhancement and modification of the human organism.

## Human evolution – a mental process

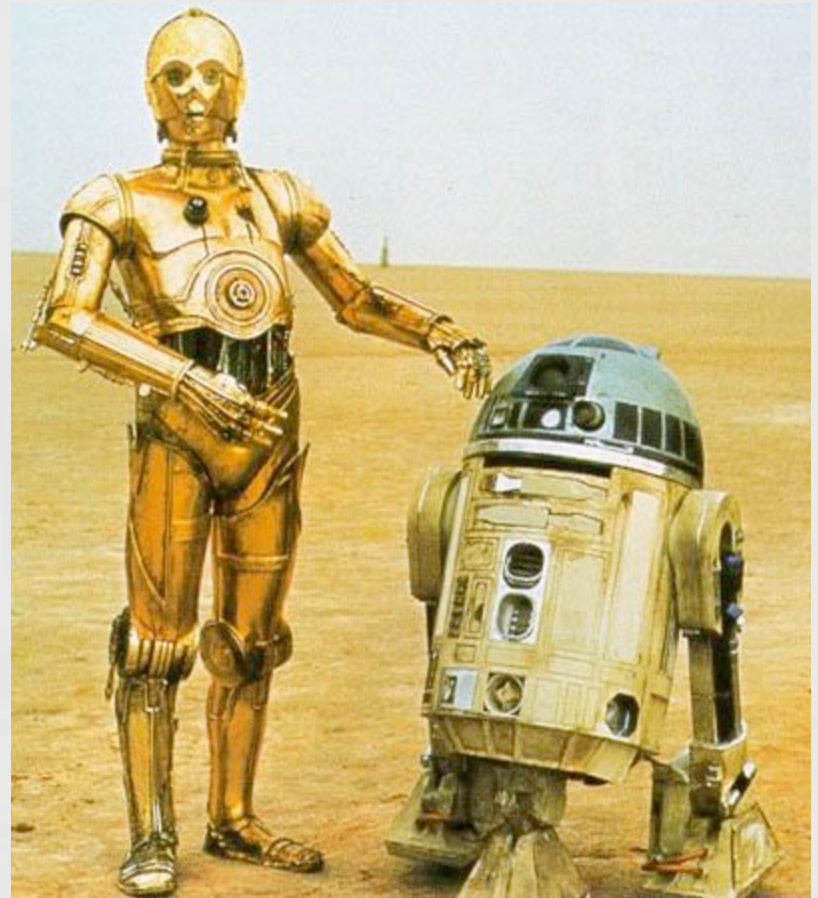
- These transformative processes in humanity are not driven by characteristic biological pressures anymore.
- These processes originate in our minds, in our perceptual and cognitive processes, in our concepts, in the manner we interact with the environment and with each other, in our worldviews, visions and aspirations.
- Human evolution at present is not a biologically driven process. It is a mental process. It is the evolution of our minds propelled and catalyzed by our own minds.

## Contemporary view:

Technological progress is becoming the major driver of human evolution.

*“Within thirty years, we will have the technological means to create superhuman intelligence. Shortly after, the human era will be ended.”*

*[The Singularity, Vernor Vinge, 1993]*



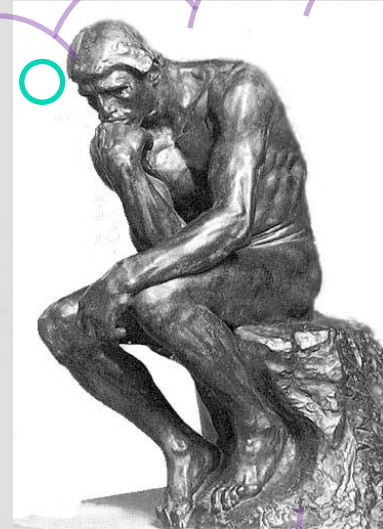
In the light of tremendous advances in science and technology, many of our expectations regarding the transformation of human condition are eluding us.

Perhaps because we fail to properly address the source of all human activity – the mind.

It seems that the deeper existential riddles that we encounter at this point of human history need a fresh perspective.

## The alternative Noetic view:

Conscious transformation of the mind should become the nexus of future human evolution.



## Requirements from the Noetic model

- Propose a clear and distinct concept of mind as a system.
- Explain the emergence of mind from its neural biological substratum.
- Propose integrated model(s) of mind and its dynamics across scales.
- Provide effective models of evolutionary and developmental processes of the mind.

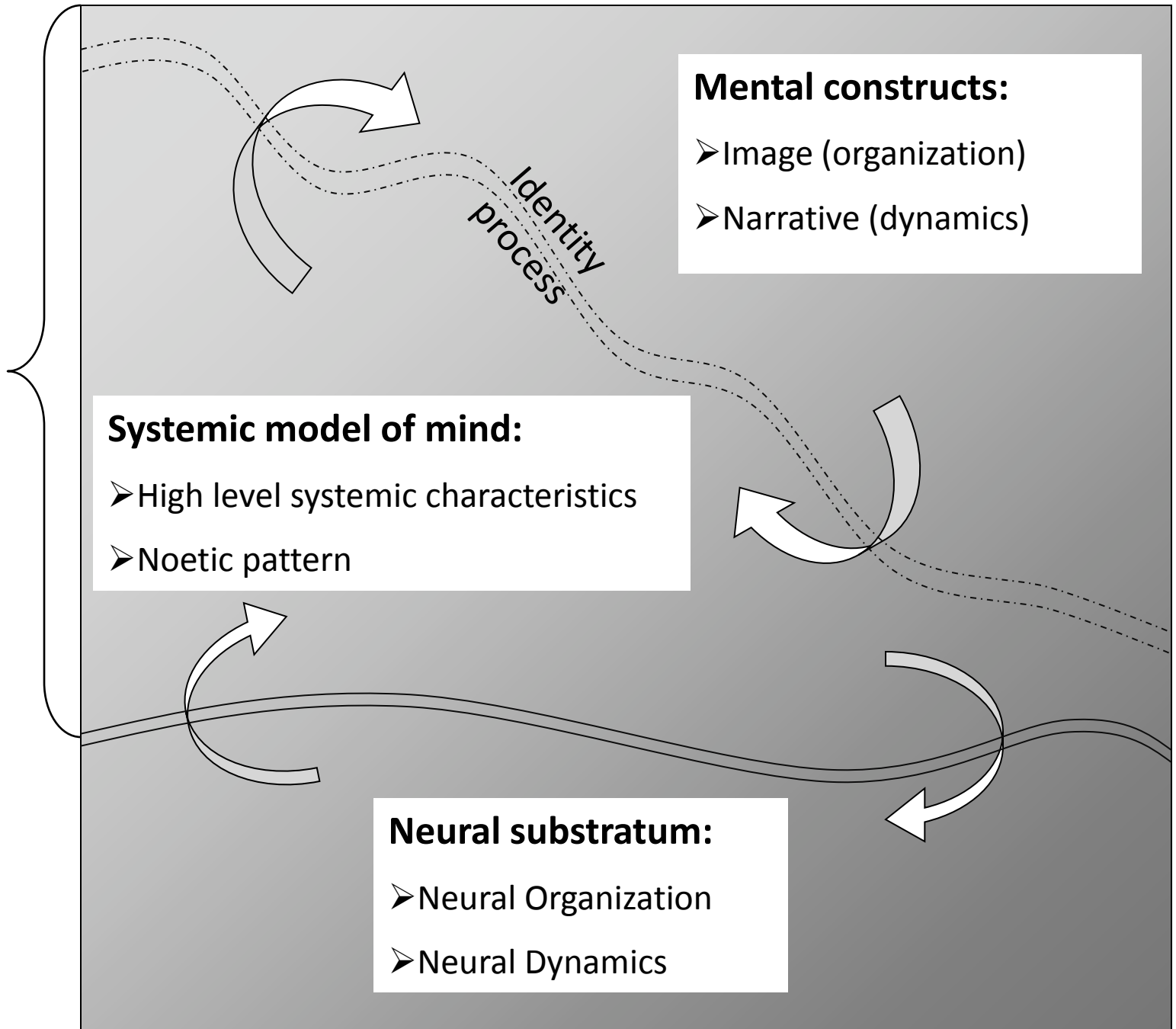


# The Noetic Model

## What is mind?

- A relation generating system.
- A dynamic, open ended, self generating, complex system.
- Fundamental to the human mind is the underlying biological organization that give rise to a conscious observer as the subject of his mental states.
- The basis of mind is (presently) biological, but as an emergent system it extends beyond the biological and the physical in manners that are still not fully understood.

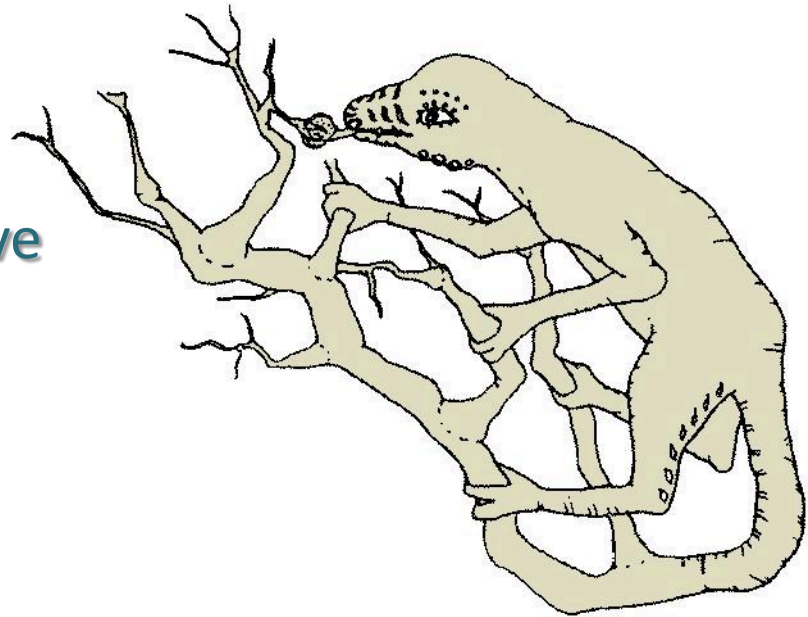
# Noetic Model



The **Noetic model** is a domain of descriptions that aims to **integrate** a systemic model of mind with the subjective contents of the mental/cognitive plane.

The Noetic model is constructivist. It takes as basis the fundamental **self generative nature** of the mind.

It does not accept an a priori independent reality.



Instead, it **embraces a constructed reality** – The appearance of a world to a conscious observer. Both, world and observer, emerging from organized systemic interactions **embodied** by the nervous system.

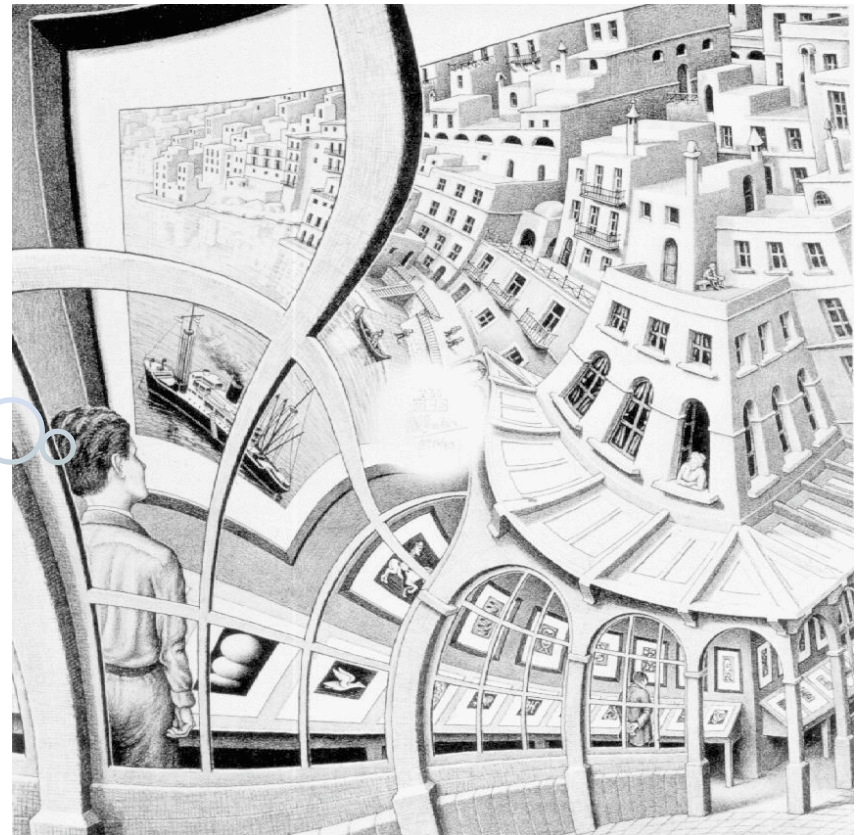
# High level systemic characteristics of the Noetic model

- Systemic closure
- Feedback dynamics
- Multiple order recursion and self reference
- Structural plasticity and adaptability
- Extended coordinated interactivity
- Open, self organizing hierarchy

# Noetic pattern (definition):

An abstract construct that corresponds on one hand to a correlated neural activity pattern and on the other hand corresponds to a definite mental construct as it appears or affects a human observer in the course of her recursive self description.

Mental constructs arise as products of the co-emergence of me - the observer and the world that appears to me.



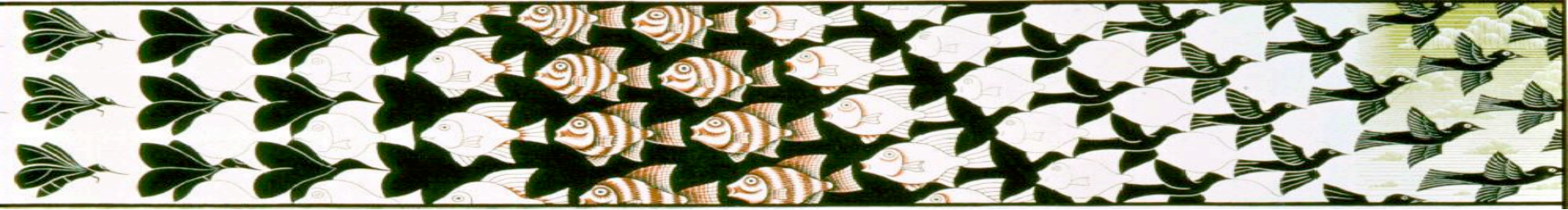
The dynamic Noetic pattern is in a continuous process of recursive self description/representation bringing forth human identity – the dynamic knowledge of being someone.

This is the human identity process.

The mental constructs constitutive to human identity, appear in two major generic species: image and narrative.

Image (definition): An image is a gestalt perception of a human, both individual and collective, in relation to the self, others, society, and the cosmos.

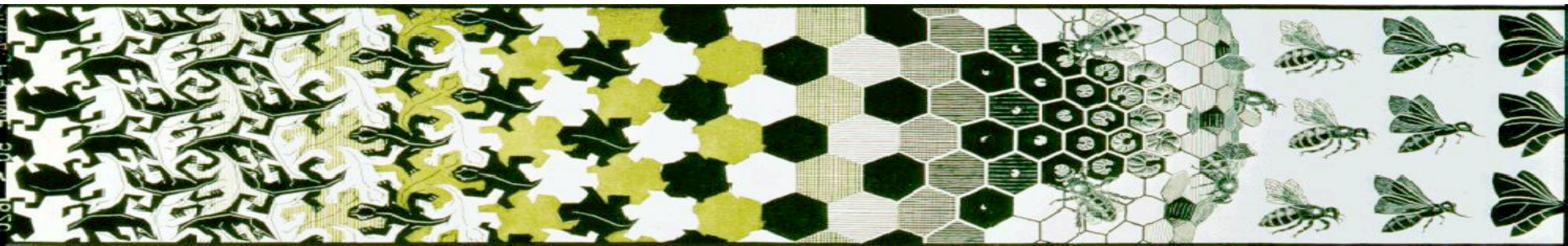




- Image elements may be perceptions, thoughts, beliefs, symbols, models, concepts, behavioral patterns, descriptive patterns and more.
- Images are related associatively and the associative links between images codify their relative meaning for the observer.
- The dynamic space spawned by images is the **identity space**, the state space of human-constructed reality.
- A coherent image might be held by any individual or group, a political system, a religion, a society, or a civilization.
- These images are held at varying degrees of awareness by persons and by societies.

## Narrative (definition):

- Narrative is a concept complementary to image.
- While images highlight the organizational features of mental constructs, narratives highlight their temporal and causative unfoldment in the identity process.
- Humans describe themselves by telling stories (and recursively, stories about stories).
- In telling stories, they create images of themselves.
- These images realize the ethos of human existence – the human existential narrative.



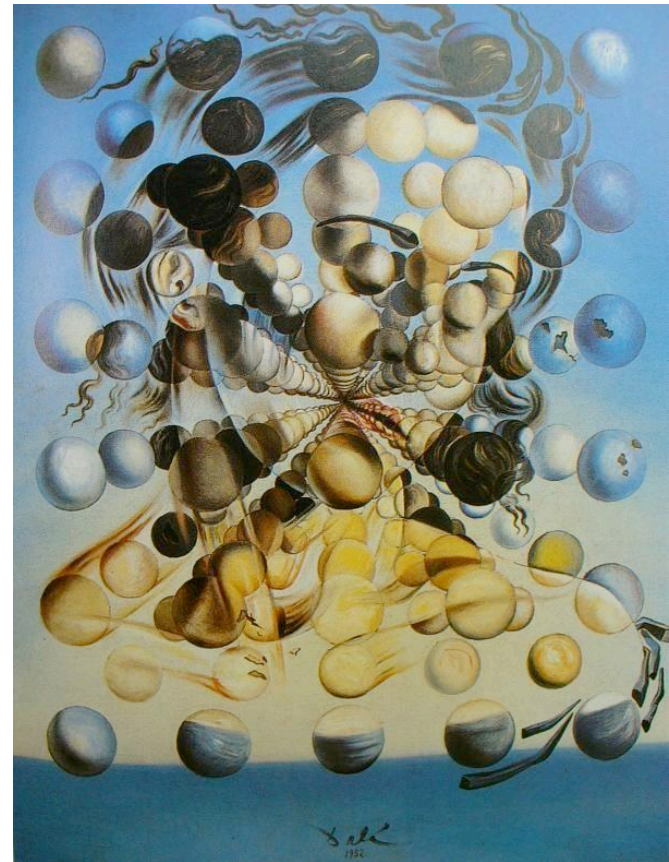


## Mind - summary

Our very conception of mind is a complex dynamic image. Mind therefore is a self generative and self referential construct.

Mind as the dynamic identity process modulates and is modulated by the interactions of the human organism with its environment (including other minds). Mind, therefore, cannot be located in the brain. It is rather a holistic and all pervading happening that transgresses the spatio-temporal boundaries.

From the standpoint of a human observer, images and narratives constitute the mind as a fully immersive identity space. As observers, we never leave this space.



## Examples

Much of human psychology and politics reflect the drama of the Noetic theater and the dynamic identity process:

*“Hence there is a thin line between the organization of the nervous system and the political and social organization that both condition and is conditioned by human experience.” [What should we do with our brains?, Catherine Malabou, 2008]*

# Images on the brink of transformation

1. **The relation of mankind with nature** - An image of interconnectivity of all life, the holistic nature of the biosphere and the value of balance and sustainability replace the Judeo-Christian image of the human as being removed from nature and by godly mandate being the master of nature.
2. **The concept of death** – The image of death as a universal inevitable condition of existence changes into a treatable health condition.

## Images that strongly resist change

1. **Free will** – The idea does not stand philosophical scrutiny. It serves, however, a currently irreplaceable function in the manner we understand human agency, in human relations and social organization. Even if, factually, we do not have free will, in many aspects, at present we are better off describing ourselves as if we do.
2. **Individual selfhood** – ‘Being someone’ is perhaps the most powerful image that governs the human identity process. Though the existence of ‘self’ is refuted by a wide spectrum of arguments from Buddhist philosophy to contemporary works (such as Metzinger’s “Being no one”), this image is deeply entrenched in our psyche, in our language, in our relations and primary cultural patterns.

# Mind and evolution

## Evolution (working definition):

A systemic process of semi organized and open-ended variation taking place under given sets of constraints and degrees of freedom.

What distinguishes evolution?

- A. It is neither an entirely random nor entirely deterministic (computationally tractable) variation.
- B. It is open ended in the sense that it follows no predesigned goal or end result. as long as the constraints are satisfied.
- C. It 'discovers' interesting unexpected variations within the system's state space that expand the state space of the system.

## Evolution of mind is an expansion of identity

The process of variation of identity that results in the discovery of interesting images, concepts or narratives that bring about an **expansion of identity** - a significant expansion of the repertoire of states and interactions available in identity space.

The systemic components being the subject of the evolutionary process are the 'units' of evolution. These are the elements undergoing variation.

According to the Noetic perspective, the units of evolution are **mental constructs**, namely, the images and narratives that populate our identity space and their corresponding Noetic patterns.

Images and narratives are highly selective in relation to the ongoing process of identity. The selective nature of images is the guiding force of the identity process as an evolutionary process.

### Images are selective because:

- They unfold from each other by association and similarity in pattern. An active image selects therefore, together with the perturbations of the environment, what image might be activated next.
- They constitute simplified representations and abstractions of the overall stream of interactions of the organism with the environment.
- They are emotionally engaging. They define attitudes and dispositions and drive the motivational system by selecting courses of action and reaction for the organism.

# The evolutionary potential of the mind

Mind as a relation generation machine is capable of spawning a virtually unlimited number and variety of mental constructs.

The self generative constructivist approach offered by the Noetic perspective, suggests that the mind can, at least potentially, evolve to transcend the constraints imposed by its biological embodiment.

By evolving beyond the constraints imposed by its own emergence, the mind demonstrates a new category of evolutionary freedom:

A capability to evolve beyond any set of constraints that transitorily shapes it.

There seem to be, therefore, no given set of images, concepts, narratives, beliefs, views or values that constitute an invariant core identity that we may recognize as human nature.



# The future direction of evolution

Apparently, realizing the evolutionary potential of humanity has to do with realizing the freedom inherent in the mind.

How can we pursue this freedom?

Openness is a design strategy for our individual and collective identity space.

It is applied by consciously reforming images and narratives.

Openness is achieved in the elimination of constraints, in admitting no closed contours and giving up complete, final distinctions.

In openness, endpoints and borders are always provisional.

- Openness tolerates and encourages maximum diversity.
- Openness eliminates the need to affirm one's own identity by diminishing or rejecting the different.
- Openness eliminates territoriality and possession as primary organizing patterns of human identity.



## *Beyond utility*

Our biological imperatives made us goal oriented, to prioritize utility over almost anything else.

Goal oriented narratives are governing the human identity process at all scales individual, social, national, cultural, etc.

Utility, being always defined in terms of the already established pattern, seriously resists change and constrains free evolution.

A futuristic prospect :

The human identity process departing from the narrow path of utility, expanding beyond the ever recurrent themes of survival and goal orientation.

## What might we 'do' with freedom beyond utility?

The freedom emerging from the Noetic perspective is a kind of freedom that is continuously realized in the conscious aesthetic choices made in the expansion of identity.

We will realize freedom by becoming fluid aesthetic beings, our identity becoming an ongoing artistic creation.



A surreal landscape featuring a full moon in a blue sky with wispy clouds. The moon is reflected in a body of water below, which is split into a golden-yellow left side and a deep blue right side. The horizon is flat and distant.

If we change the image  
we change the world.  
(Wim Wenders)



## *Aesthetic choice*

An aesthetic choice is not compliant to the currently ongoing narrative. Often it would be an act of departure, distinction, even rebellion against the order at play.

A true aesthetic choice is unique and unpredictable in its uniqueness. Since it is not supported by, or coherent with existing images, it invites a special kind of sensibility (and responsibility) to be associated with the freedom that allows it.

I would call this special sensibility **commitment**. One does not simply identifies with an aesthetic choice, one becomes consciously committed to it and by that brings forth a new kind of identity.

# The role of consciousness

Reflective consciousness - the voluntary directing of attention towards the subject while in the act of self-description.

Reflective consciousness holds a pivotal function in the evolution of mind: it allows us to escape the immersive closure imposed by our images and thus to expand our identity.

When we gain extra freedom, it is the view provided by conscious reflection that guides the realization of this freedom in our aesthetic choices.

# The image of human nature

What are the images and narratives we apply to our own identity process? (the image of our image)

What is our evolutionary potential and how to think about it?

Are we free or bound by blind forces that shape who and what we are?

*“We have made you a creature neither of heaven nor of earth, neither mortal nor immortal, in order that you may, as the free and proud shaper of your own being, fashion yourself in the form you may prefer.” [Oration on the Dignity of Man, Pico Della Mirandolla, 1486]*