Homology between Unicist Concepts and Stem Cells, Biology, Atoms, the TAO and Electricity

The function of stem cells in the human body is homologous to the function of concepts in the field of human actions. While stem cells can give rise to specialized cells and thus organs, essential concepts allow building unicist objects.

Two entities are homologous when they are regulated by an essentially analogous concept. Homologies allow defining conceptual benchmarks that define the limits of applicability of a specific knowledge.

Here we present five homologies that allow discovering the unicist logical approach as self-evident in other fields. These homologies deal with the field of physics and biology. They are:

1) Homology between Unicist Concepts and Stem Cells
2) Homology between the Unicist Ontology and the structure of Biological Entities
3) Homology between atoms and the unicist ontological structure
4) Homology between the Unicist Theory and the TAO
5) Homology between thinking processes and the functionality of electricity

The objective of this synthesis is to provide the framework of the consistency between concepts and the unicist ontological approach and hard sciences to demonstrate not only that they are compatible but also their homology.
Brief on the Homology between Unicist Concepts and Stem Cells, Biology, Atoms, the TAO and Electricity

An Introduction

This introduction is an excerpt from the publications on Unicist Concepts and their homologies based on the researches led by Peter Belohlavek at The Unicist Research Institute.
Concepts

Concepts describe the living creatures’ essences and their evolution laws. That is what we call their ontogenetic intelligence.

Living creatures possess intrinsic concepts. This means that these concepts exist in themselves and only need to be discovered.

On the other hand, inanimate beings have extrinsic concepts, which are deposited on them according to their functionality.

Concepts determine the ontological behavior of living creatures.

As there is a generic concept for each species that defines its purpose, its expansion action (entropy) and its conservation function, such concept is cross-cultural and timeless, as long as the species does not become extinct.

The Unicist Ontology

The unicist ontology describes the nature of reality with the structure and rules of the ontogenetic intelligence of nature. It describes the nature as a unified field.

Thus it has a logical structure that allows guiding the individual in the search of the nature of something and providing the necessary language to describe it.

The ontogenetic maps describe the unicist ontological structures of the functions of some reality. These maps define the essential drivers, catalysts and inhibitors which define the natural actions of these functions.
The Unified Field

Whenever we describe an evolution theory we refer to universal laws that are applicable to actual fields. In order to apprehend actual fields man bears his own perception capacity restrictions. That is why different people are able to apprehend different realities.

http://www.unicist.org/unicist_unified_field_en.pdf

From an objective point of view, there is only one reality. We define this reality as a unified field restricted by an arbitrary decision, though functional to man.

The amplitude of the unified field depends on the capacity to adapt to environment. The adaptation capacity belongs to the individual participating.

When the individual merely seeks to flow through environment and subordinates to it, adaptation is not possible. The same holds true when he intends to dominate it.

Fallacies are mechanisms that avoid apprehension of a unified field in all of its depth.

When one is overwhelmed by a given reality there are two possible paths: accept it, hence seeking to apprehend it or not, or “solve” the conflict through fallacies.
Homology between Unicist Concepts and Stem Cells

The function of stem cells in the human body is homologous to the function of concepts in the field of human actions. While stem cells can give rise to specialized cells and thus organs, essential concepts allow building unicist objects.

Unicist objects are adaptive systems that have a concept and generate added value within a quality assurance system to fulfill the purpose of the concept. Unicist objects are independent entities that integrate a complex adaptive system.

The knowledge of the essential concepts is basic to build unicist objects because these objects are the materialization of a concept.

Under certain conditions, organs can be transplanted and this is also the case of unicist objects that can be replicated as long as they belong to homologous and analogous entities.

Objects are inserted into processes to produce specific results. The same way stem cells have the potential capacity to give birth to human organs, concepts can give birth to objects to produce results.

The knowledge of the Unicist Theory allows using a double dialectical approach to reality to emulate the organization of nature using an object driven organization.

Nature is organized by objects which can be observed in the ecosystem. The human body is an example of the organization of nature, where organs are homologous to unicist objects. That is why the transplantation of organs became possible.

While the structure of the different organs of the body derives from the stem cells, the unicist objects derive from the essential function of an entity that is defined by its concept.
Properties of Stem Cells and Concepts

<table>
<thead>
<tr>
<th>Stem Cells</th>
<th>Concepts</th>
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<tbody>
<tr>
<td>They are unspecialized</td>
<td>They are universal</td>
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<tr>
<td>They are capable of self-renewal</td>
<td>They are timeless</td>
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<tr>
<td>They can give rise to specialized</td>
<td>They allow building operational functions</td>
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Thus, stem cells and concepts are homologous. While essential concepts allow the construction of objects to insert into human adaptive processes, stem cells allow the building of organs that work as unicist objects to sustain the functionality of a complex adaptive system such as the human body.
Homology with Biological Entities

The unicist ontology of a “biological entity” defines its structure and functionality in an environment.

The genotype defines the genetic structure of the entity that rules its evolution and generates the phenotype of the being.

The objective of the genotype is to ensure the permanence of species, its reproduction and production.

The phenotype defines the morphologic, behavioral and materialistic characteristics of the entity.

It defines the functional characteristics, the functional power of the entity and the functional assurance.

Functionality defines the effectiveness of the phenotype measured as the consequence of the adaptation of the biological entity to the environment.

Functionality is measured in the capacity of adapting and growing on the one hand, and surviving, on the other hand.

The understanding of the ontology of “biological entities” helps to follow the laws of nature when dealing with genetic engineering processes and use it to apprehend the nature of beings with “artificial life” such as institutions.
Homology with the Atomic Structure

The ontogenetic intelligence of nature defines that every living being has a purpose, an active principle and an energy conservation principle.

Learn more at: http://www.unicist.org/repo/#Basics

The purpose can also be defined as the substantive function, the active principle as the verbal function and the energy conservation principle as the adverbial function.

In physics atoms are defined by having a central nucleus, composed by positively charged protons and neutral neutrons, surrounded by negatively charged electrons.
The positively charged protons are homologous to the substantive function, the neutral neutrons are homologous to the adverbial function and the negatively charged electrons are homologous to the verbal function.

An atom, having an equal number of protons and electrons, is electrically neutral.

Living beings are continuously evolving and involving which implies that there is always disequilibrium between their purposes and their active functions which is homologous to the disequilibrium of protons and electrons.

This disequilibrium is what defines the energy and the influence of an ontogenetic structure in the environment.

The active function and the purpose are antithetic and supplementary implying that both are charged with energy.

The energy conservation function and the purpose have a complementary relationship which is evident in atoms where the neutrons allow the integration of the protons.

The mass of an element is basically given by the nucleus of an ontological structure meaning that the mass is given by the purpose and its complementary energy conservation function. But the evolution of a living being is given by the power of the active function in the environment.
Homology between the Unicist Theory and the TAO

The homology between the Unicist Theory and the TAO allows understanding the level of integration that needs to be achieved to adapt to an environment to generate value.

This integration of the double dialectical logic that emulates the intelligence that underlies nature is the core of transforming movements into actions.

The energy is generated when the purpose is being achieved integrating the active principle and the energy conservation principle. This integration defines, at an essential level, the unified field of a given reality.

Apprehending reality as a unified field requires accepting that one is part of that reality and that there are no observers but participants when dealing in an adapted way with complex adaptive systems.

The Unicist Logic and the TAO

Both the Unicist Double Dialectical Logic (Unicist Logic) and the TAO deal with the principles that underlie nature.

The integration of Yin and Yang builds the triadic structure of the Unicist Logic. Both the TAO and the Unicist Logic explain the structure of the unified field of the functionality of a specific reality including its dynamics and evolution.
Yang is homologous to the dialectics between the purpose and the active principle. It defines the active functionality of an entity. 
Yin is homologous to the dialectics between the purpose and the energy conservation principle. It defines the energy conservation functionality.

The conjunction of both dialectics is defined by a triadic structure that integrates the ultimate functional purpose of the entity with the active principle and with its complement, defined by the energy conservation principle.

Both the TAO and the Unicist Logic are based on the use of the conjunction “and” excluding the use of the disjunction “or”.

If you are not aware of the scientific use of the TAO, we recommend reading the book “Tao of Physics” by Fritjof Capra.

Double Dialectical Thinking to deal with Triadic Structures

To approach a reality integrated by three elements with a dualistic mind it is necessary to consider it as a dualistic integration of binary elements.

To perceive dialectics it is necessary to have a high abstraction capacity.

Those who do not have the abstraction capacity consider the dialectical behavior based on observable facts of reality. They cannot differentiate essential correlations from cause-effect relations.

The Unicist Dialectics allows dealing with human adaptive systems managing the integration of their double dialectical behavior.

With this double dialectical approach (purpose - active function, purpose - energy conservation function) one can understand the structure of an adaptive system and its evolution.
Unicist Dialectics is based on the emulation of adaptive systems, emulating the ontogenetic intelligence of nature (purpose, active principle, energy conservation principle).

Its application to human adaptive systems made the emulation of individual, institutional and social evolution possible.

Individuals who have the necessary functional intelligence and the will to add value to an environment, and are able to see the double dialectics, develop two different actions to ensure results: on the one hand, they impulse action and on the other hand, they develop actions to inhibit entropy.

Homology between Thinking Processes and the Functionality of Electricity

Direct Current

An electric current that flows continuously in a single direction is called a direct current, or DC.
DC (direct current) is the unidirectional flow or movement of electric charge carriers. The intensity of the current can vary with time, but the general direction of movement stays the same at all times.

The positive end of the battery is always positive relative to the negative end, and the negative end of the battery is always negative relative to the positive end. This constancy is what pushes the electrons in a single direction.

To transform the voltage of direct current it is necessary to change its nature.

Dualistic Thinking (Logic)

Dualistic thinking is functionally homologous to direct current and is ruled by analogous principles.

Dualistic thinking is based on moving in a single direction to avoid the influences of the environment. It requires using the disjunction “or” to avoid changing the direction of the action.

Dualistic thinking cannot be modified during the process if a change to improve the production of results was necessary. Dualistic thinking is functional to follow operational methods. Without the use of dualistic thinking operational behavior cannot exist.

Dualistic thinking cannot be transformed into double dialectical thinking. To transform dualistic thinking into double dialectical thinking it is necessary to change the environment. Unicist reflection, the process of action-reflection-action, is the context needed to transform a dualistic approach into an integrative, double dialectical, approach.

Alternating Current

In electricity, alternating current (AC) occurs when charge carriers in a conductor or semiconductor periodically reverse their direction of movement. An AC waveform can be sinusoidal, square, or sawtooth-shaped. Some AC waveforms are irregular or complicated. An example of sine-wave AC is common household utility current (in the ideal case).
Square or sawtooth waves are produced by certain types of electronic oscillators, and by a low-end uninterruptible power supply (UPS) when it is operating from its battery. Irregular AC waves are produced by audio amplifiers that deal with analog voice signals and/or music.

The electrons in an AC circuit don't really move along with the current flow. Instead, they sort of sit and wiggle back and forth. They move one direction for 1/60th (for example) of a second, and then turn around and go the other direction for 1/60th of a second. The net effect is that they don't really go anywhere.

Alternating current can easily be transformed towards higher or lower levels of voltage and rectified in order to be changed into direct current.

**Double Dialectical Thinking (Logic)**

The double dialectical thinking is homologous to the functionality of the alternating current and works in an analogous way.

It is based on the integration of two dualistic pairs, purpose-active function and purpose-energy conservation function, which move back and forth following the cycles defined by the synchronicity with the context.

These cycles have to be unperceivable by the context in order to work. This is achieved when the cycles are fully synchronic with the environment. In the field of human adaptive systems the alternation is between expansion and contraction and freedom and security (see anthropological invariables).

The double dialectical thinking can easily be transformed into dualistic thinking in order to sustain operational actions.
Conclusion

This homology is just a demonstration that beginning with physics, continuing with biology and ending with human behavior the essential structures of these fields are necessarily compatible and homologous.

This implies that any modeling, emulation or simulation of an entity has to be based on this triadic structure integrated by the complementation and supplementation laws. The functionality of the DNA is an evidence of this structure.

Dualistic approaches are essentially fallacious because they are necessarily based on a ceteris paribus condition which can only be used in stagnated environments. The more adaptive a “system” is, the more paradoxical the results of using dualistic approaches are.

The Unicist Research Institute
Access the application of the Unicist Logical Approach to Complexity:

www.unicist.org/repo/#Unicist

Books by Peter Belohlavek that refer to Complexity Sciences and their application. You can access them at the Unicist Library: www.unicist.com

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Peter Belohlavek was born on April 13, 1944 in Zilina, Slovakia. He discovered the Ontogenetic Intelligence of Nature that explains that evolution is purpose-driven and not random. This gave birth to the Unicist Theory of Evolution that made evolution reasonable, understandable and predictable. The Ontogenetic Intelligence of Nature allowed developing the Unicist Logical Approach based on a pragmatic, structural and functionalist framework, to research and develop complex adaptive systems. The Unicist Logical Approach he developed is based on the Unicist Double Dialectical Logic that demonstrated the fallacy of Hegel's and Marx's dialectics. (More information: [http://www.unicist.org/pb.shtml](http://www.unicist.org/pb.shtml)).

The Unicist Research Institute was the pioneer in complexity science research and became a private global decentralized leading research organization in the field of human adaptive systems. [http://www.unicist.org/turi.pdf](http://www.unicist.org/turi.pdf)