

HPTD-M: A TRANSDISCIPLINARY INTEGRATION OF THREE PARADIGMS - MECHANISTIC, SYSTEMIC AND SYNCHRONISTIC¹

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1. INTRODUCTION

Our Holopraxis Transdisciplinary Management (HPTD-M) view is based on the principles of duality (interaction and integration of opposites) besides four elements that can be seen through i) psychological functions, ii) types of intelligence, iii) epistemic ways, and iv) troubleshooting requirements. The methodology comes originally from: a) the holistic transdisciplinary theory from the International University of Peace (UNIPAZ), a Brazilian non-governmental, non-profit organization, considered as a Federal Public Utility; b) Jungian psychological functions: sensation, feeling, thinking and intuition, which we translate, through HPTD-M, into four skills or types of intelligence: empirical, emotional, rational and intuitive; and c) the literature about management and public administration.

The HPTD-M approach is based on the four epistemic ways of interacting with the four types of intelligence, respectively: technoscience (empirical and rational), philosophy (rational and intuitive), tradition (intuitive and emotional), and art (emotional and empirical). Also, the four types of intelligence are translated into four requirements for problem-solving: feasibility and rationality (analytical method), reasonability, and meaning (synthetic method).

In connection to the Jungian theory of synchronicity, some scientists have discussed the Western rationalist view and the necessity of considering open systems of knowledge. This idea can be shown in different converging concepts, like i) **duality** (physics), ii) **dialectics** (philosophy), and iii) **trade-off** (economics). Troubleshooting is usually seen in the Modern Western way of **rationality** in the broad sense (*hard skills*: rational and empirical forms of intelligence), but not through **meaning** in the broad sense (*soft skills*: the sense of emotional and intuitive forms of intelligence) as seen through the traditional Eastern way. Some examples of this duality view:

- a) Isaac **Newton** (classic physics, math, technoscience, business, and politics): In the 17th century, Newton was president of The Royal Society and president of the

¹ This paper is the sole responsibility of its author, not necessarily reflecting the view of any public institution.

Royal Mint. However, most of his works are about Alchemical tradition, not classic physics or math. [1]

- b) Johann Wolfgang von **Goethe** (literature, arts, and science) is not well known for his scientific work in the end of the 18th and beginning of the 19th century:

Science is as much an inner path of spiritual development as it is a discipline aimed at accumulating knowledge of the physical world. It involves not only a rigorous training of our faculties of observation and thinking, but also of other human faculties which can attune us to the spiritual dimension that underlies and interpenetrates the physical: faculties such as feeling, imagination and intuition. [2], p. 10.

- c) Carl Gustav **Jung** (ancient traditions and philosophies, psychology in contact with modern physics). Jung was a psychiatrist and director of a hospital, in the beginning of the 20th century, and developed his Analytical Psychology based on ancient philosophies and traditions, especially the European Alchemy, considering his empirical evidence as a doctor. [3]

- d) Albert **Einstein** (originally from relativistic physics):

The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift. [2], p. 11.

- e) Niels **Bohr** (originally from quantum physics):

The fact that religions through the ages have spoken in images, parables, and paradoxes means simply that there are no other ways of grasping the reality to which they refer. But that does not mean that it is not a genuine reality. And splitting this reality into an objective and a subjective side won't get us very far. [4]

- f) Pierre **Weil** (holistic transdisciplinarity): a co-founder of UNIPAZ in 1987, the author's 2000 book *The change of meaning and the meaning of change* represents a summary of all his publications, one of our main HPTD-M influencers. [5]

- g) Roberto **Crema** (holistic transdisciplinarity): a co-founder of UNIPAZ in 1987): see the author's 2017 book *The power of encounter*, the book understood by the scholar as the one suitable to be translated from Portuguese to English. The author is one of our main HPTD-M influencers. [6]

So, those who tend to consider not valid traditional epistemic ways such as religion, mythology, Alchemical tradition, and other forms of intuitive knowledge, for being non-scientific, should be more careful. Newton, Goethe, Jung, Einstein, Bohr, Weil, Crema, and the HPTD-M corroborate this viewpoint.

Our first approach for the complete framework of the HPTD-M theory was published in April/2022, and involves troubleshooting in open systems of knowledge. Our framework is ancient, although corroborated by modern physics and Jungian psychology, besides the idea of four archetypal elements and the Greek concepts of *SOMA*, *PSYCHE*, and *NOUS*. The HPTD-M dialectic process is evidenced through the integration of four paradigms: mechanism, systems, synchronicity, and the transdisciplinary view of HPTD-M itself. The instruments used for this integration are i) the four symbolic elements, namely earth, water, air, and fire, ii) the Greek concepts of *SOMA* (related to earth), *PSYCHE* (related to water + air), and *NOUS* (related to fire).

This paper's purpose is to continue developing our HPTD-M theory (Holopraxis Transdisciplinary Management) through the dialogic process of four paradigms: mechanism, systems, synchronicity, and the transdisciplinary view of HPTD-M itself, in the context of the four archetypal elements and the Greek concepts of *SOMA*, *PSYCHE*, and *NOUS*.

The instruments used for this integration are:

- i) The ancient four elements (earth, water, air, and fire).
- ii) The Greek concepts of *SOMA*, *PSYCHE*, and *NOUS*.

The framework of this paper also goes in the direction of a synergic dialogue, the basis of our HPTD-M approach, considering the integration of mechanism, systems, and synchronicity.

- a) **Psychosomatics** as the interaction of *PSYCHE* and *SOMA*, no need for more comments since psychosomatics is the conjunction of both concepts.
- b) The idea of **unconscious and dream** analysis (*NOUS* and *PSYCHE*), since intuition (originated from the unconscious) can be shown in the individual psyche through the dream images and scenes.
- c) **Altinópolis** Brazilian city transdisciplinary public management by the Mayor Hyssa (*NOUS*, *PSYCHE*, and *SOMA*), considering a dream of the Mayor (*NOUS*) that became reality through the cultural transformation (*PSYCHE*) and urban engineering works (*SOMA*).

The first part of the HPTD-M theory was already presented in the April/2022 article. Two other previous articles (full texts are available in the references) are also part of the HPTD-M theory and can be useful as a complementary source. So, the basis of

our HPTD-M theory was constructed from November/2021 to April/2022, through articles in English. See [7, 8, 9, 10].

Our findings involve three concrete applications of HPTD-M: i) **Psychosomatics** as the interaction of *PSYCHE* and *SOMA*; ii) the idea of **unconscious** related to *NOUS*, and **dream analysis**, related to *PSYCHE*; iii) the concrete example of **Altinópolis** Brazilian city showing how to put in praxis the transdisciplinary public management. As seen in three authors members of the French CIRET (International Center for Transdisciplinary Research), there is an indication of convergence with some HPTD-M ideas.

Finally, by coincidence (or not), since May/2022 we have been presented to the neologism of **transpraxis**, developed by the Canadian Dr. Sue L.T. McGregor: See the scholar's 2020 article *Transdisciplinarity and transpraxis* [11]. The connections with our HPTD-M concept of **holopraxis** are remarkable. Holopraxis comes originally from the UNIPAZ idea of holistic view = holology + holopraxis. McGregor's view of transpraxis comes from transdisciplinarity itself. The holistic view can be perceived as a transdisciplinary view of reality, the ideas are so similar. Besides, other references of two authors members of the French CIRET are shown in the text, Professor Comby and Dr. Muresan, including the honorary president Nicolescu, also with indications of convergence with some of our HPTD-M viewpoints.

2. THE FOUR ARCHETYPICAL ELEMENTS

According to Franz, archetypes are patterns of emotional and intellectual behavior, received by all men [12]. Therefore, they are universal, culture-independent patterns, models, or scripts.

For Professor Comby, in a connection between science and religion, Jung considers the human imagination structured by a series of unconscious "primordial images" having a universal character and which he calls "archetypes". It is like a model of behavior that is part of the context of the cosmic organization. For Jung, myths symbolically express the collective memory of these archetypes to which the individual does not have access through his conscience. Mythology, therefore, appears as a form of language. Comby refers to himself as a scientist (mathematics, physics, and rational mechanics), a teacher, and a seeker of God who inscribes his quest in the footsteps of Teilhard de Chardin. [13]. In his view, Dr. Comby has connections to our HPTD-M.

Important for symbolism and mythology in an archetypal way, the principle of the four elements earth, water, air, and fire appears in Greek philosophy, and later

remains in European alchemy. Such elements are seen comprehensively, which can sometimes even coincide with the scientific approach to physics, compared, for example, to the states of solid, liquid, gaseous, and plasma matter. There are also several subjective readings, such as that of the four Jungian functions of PSYCHE or consciousness: sensation, feeling, thought and intuition. When the ancients spoke of the land, water, air, and fire, they thought simultaneously objectively and subjectively, so there are several possible interpretations, which seem to be in the collective unconscious of humanity, such as legends and myths. Therefore, the four elements can be relevant tools in the interpretation of dreams. In the context of Greek philosophy, Franz attests that these elements or principles mean something concrete, but at the same time symbolic – free translation from the Portuguese issue:

As possibly everyone knows, seen from the more specifically European angle it is considered that natural science originated in the 6th century BC., the time of pre-Socratic philosophy. But it was basically philosophical speculation about nature because there was very little experimental research by the first scientists of nature. It would be more correct to say that what was born at that time was natural science as well as the general theory or concept of reality. Natural science, in the sense of experimentation that has always been carried out by man with animals, stones, plants, matter, fire, and water, is much broader, and in times past formed part of the magical practices that relate to all religions and that we're concerned with those materials. There are a few exceptions. That is why it could be said that, in his vision of the last realities of life, man feels afflicted by ideas and concepts coming from his own interior, by symbols and images, but also with external materials. This explains why, in most rituals, there is something concrete that represents the symbolic meaning; for example, the bowl of water that sits in the center for divination, or something like that. [14], pp. 17-18.

Franz also states that the alchemist Zosimos (3rd century AD) already stressed that the four elements should not be understood in a concrete way; on the contrary, they would be mysterious "centers" or principles present in the matter. Later, they were interpreted as aggregations: all solid matter was considered as "earth", all liquids as "water", all gas as "air" and everything that burned, corroded or burned as "fire". [15]

These four principles can also reflect duality, by the opposition to each other, two by two, or by the set of two elements opposite the set of two others. For example, in the Jungian paradigm one can consider the duality of water/air and earth/fire, in the sense of the functions of judgment and perception, that is, thought/feeling and sensation/intuition, as we will see later on. Moreover, duality can also manifest itself in the four elements by the transformation cycle from the densest to the most subtle: *earth* → *water* → *air* → *fire*, the "upward" path defined by Heraclius (535-475 a.c.), alternating with the transformation cycle from the most subtle to the denser, *fire* → *air* → *water* → *earth*, path "down". In this context, the philosopher considers that the

balance of opposites leads to the unity of the universe. The Cosmos is ruled by the Divine Logos, universal law. By the way, the philosophical concept closest to Logos, in this case, is the reason, although there may be broader meanings such as the Word and the Word in Christianity. Returning to Heraclitus, he considers that "The way up and the path below are one and the same." Everything is in a permanent state of flow or change. Fire, when condensed, humidifies and, more consistently, becomes water; and this, solidifying, becomes land and, from there, all the things of the world are born. This is the path the philosopher defines as being "down". By melting the earth, you get water. Water turns into steam, as we see in the evaporation of the sea. And, rarer, the steam turns again into the fire. This is the "way up". [16]

The Greek Empedocles (490 430 BC) would have been the first to expressly deal with the four elements. He understands that the origin of all things is them: earth, water, air, and fire, which continually combine, are parted and recombined. [17]

In our opinion, this idea was part of Western thought until the Renaissance period. When Empedocles speaks of "all things", the philosopher did not simply think of concrete nouns, but also of principles and abstractions, something that also occurs in European Alchemy. A fool of the modern world is to take these thoughts as mere rudiments of physics and chemistry. The principle of the four elements is much more than that: the symbology involved can be applied in various areas of knowledge, such as psychology and theology. These ideas represent a comprehensive conception of the world, which was lost with the rationalist, mechanistic and fragmented view of the Modern Age, especially after the Enlightenment, implying the hypertrophy of the logical part in our contemporary society.

3. SOMA, PSYCHE, AND NOUS VS. THE FOUR ELEMENTS

The four elements can also lead us to the visions of the human being dating back to ancient Greek philosophy, considering Leloup²: *SOMA*, *PSYCHE*, and *NOUS*: [18] and [19].

SOMA: the human being can be conceived and symbolized as a simple straight line. It is the one-dimensional view, man as matter and body only. Matter produces the spirit and there is no spirit outside of matter. It is a mechanistic view, which considers man only in physiology and chemistry, and his psychic problems should be solved

² Jean-Yves Leloup is a writer, theologian, Orthodox priest, and philosopher. Founder of the Institute for the Encounter and Study of Civilizations and the International College of Therapists.

only chemically; psychological therapies are useless; visions and apparitions are considered only electrochemical transmissions of the brain;

PSYCHE: it is the second dimension, soul or *PSYCHE*. Feeling and thought are part of it. One must respect the double dimension of the human being, who asks for medical and psychological skills, because the health of the body depends on the health of the soul, thus revealing a duality;

NOUS: it is a third dimension, which translated from Greek would be close to "spirit", but which deals with a contemplative intelligence; the ancients knew her and considered her "the divine part", which we now rediscover through certain practices of deep relaxation or meditation. This view is very common among monks, who tend to despise the body, feelings, and rational thoughts to release this part of NOUS from themselves.

In connection with this comprehensive vision, Leloup reflects their practice at the *International College of Therapists* - free translation of part of the 1994 foundation text, available in the Author's site:

In the conclusion of his book on the Therapists of Alexandria "Taking care of Being", Jean-Yves Leloup writes: "Next to the Order of Physicians, the Order of Therapists remains to be created. It would recall the requirements of a multidimensional approach to the human being, and would promote a less fragmented, i.e. less sectarian, practice of medicine, psychology, and spirituality. We cannot hope for a better world without a revision of the anthropological presuppositions of our methods of care." The College brings together therapists, people from diverse backgrounds and diverse skills, recognizing themselves in common anthropology, ethics, practice, and orientations. It is not of any political or religious persuasion. Each of its members is free to belong to a tradition. [20]

Crema³ states that all the ancient shamanic traditions of the world, like our ancestral Tupi-Guarani wisdom, speak of the existence of three intertwined worlds: the lower, the middle, and the above, that is, the physical dimensions, the psychic domain, and the field of transpersonal consciousness from which the archetypal images flow. These three domains can be ritualistically represented by three circles around a campfire. At the center of these three circles, here is the warmth, and the light of the Bonfire of Tupã, which symbolizes the Great Spirit, the burning bush of the desert, the fire of Paraclete, the Pentecostal flame, the igneous serpent of Kundalini, flames of the Essence of being that is, the supreme target of all wisdom traditions, which we can also indicate by the symbol of infinity (the number eight lying down, also used as a mathematical symbol of infinity). Thus, it shows otherwise the concepts of *SOMA*,

³ Roberto Crema is the dean of UNIPAZ in Brazil, anthropologist, psychologist, and creator of the Fifth Force in Therapy (Transactional Synthesis).

PSYCHE, *NOUS* as the world below, middle, and *PNEUMA* as the Bonfire of Tupã, respectively. [17]

At the Seminar given at UNIPAZ⁴ between March 3 and 4, 2017, in the city of Brasília, Brazil, Crema also presents these four visions more as levels of subtlety - understands *NOUS* as an archetype body or consciousness, a mirror to be cleaned through meditation. Among other allegories. Jung's Self would be a way of referring to *NOUS*, the subject's consciousness. There is duality in the first three levels (*SOMA*, *PSYCHE*, and *NOUS*). But when it goes beyond *NOUS* (metanous), which gave rise to the word *metanoia*.⁵ In this reasoning, for Crema there are three ecologies that accompany us: (i) visible or somatic; (ii) the psychic, which also involves beings apparently invisible to the physical world; and (iii) the noetic or archetypal.

As for dualities at the three levels, our understanding is presented as follows. *SOMA* expresses the physical-energetic duality, analogous to the particle-wave duality of modern physics, which we will study later. *PSYCHE* shows the thought-feeling duality, which complements each other. Finally, *NOUS* reveals concentration-relaxation duality - we can have insights or flashes of intuition through meditation, either by concentrating on certain activities, zen-style or by relaxing carefully. If we observe these dualities at the three levels, they all have something in common: a principle of complementarity between concentration and expansion. At the somatic level, the matter is concentrated energy. At the psychic level, thinking is analytical/focused, the feeling synthetic/scattered. At the noetic level, concentration and expansion are shown in the forms of meditation. By the way, for illustration purposes, the text described in this paragraph came to us by insight during our physical routine of functional gymnastics, which can be considered as a form of meditation or *mindfulness* trying to maintain respiratory awareness.

These three ecologies that he points out go precisely to the ancient Egyptian tradition of hermeticism, which advocates three planes of existence that are interpenetrated, according to *The Kybalion*: i) physical, corresponding to the visible and somatic; ii) mental, analogous to the psychic, which even hermetic also points to having beings apparently invisible to the physical world; and iii) spiritual, which corresponds to the noetic or archetypal. Hermeticism will be seen in detail later when we deal with Alchemy. In this sense of the somatic, psychic, and noetic or archetypal levels, one can observe interactions between them, as if in a continuum.

⁴ UNIPAZ is a non-governmental, non-profit organization, declared a Federal Public Utility agency. It was created in 1987 in the city of Brasília (Brazil) to develop specific and inter-related projects related to the holistic transdisciplinary approach. Site access (in Portuguese): <https://unipaz.org.br/>

⁵ For Franz, *metanoia* is a change of attitude, through which the whole personality is renewed and changed, in a way that can no longer go back. [35]

The level of consciousness initially limited to the rational cannot integrate with the emotional within the scope of *PSYCHE*. Through the observation of one's own dreams and by other instruments, such as mindfulness or other forms of reflection and conscientious development, this integration can be developed.

Finally, one can compare the *SOMA*, *PSYCHE*, and *NOUS* with the alchemical elements earth, water, air, and fire, as well as with Jung's functions - sensation, feeling, thought, and intuition. *SOMA* represents the earth, the sensation. The concept of *PSYCHE* involves two elements: water and air (feeling and thinking). *NOUS* and Pneuma reveal the fire, and *NOUS* reflects Pneuma through intuition. Therefore, *SOMA* relates to the principle "earth" (sensation), *PSYCHE* to "water" (feeling) and "air" (thought), and *NOUS* to "fire" (intuition). Otherwise, *SOMA* is the body, *PSYCHE* soul, and *NOUS* the individual spirit. Hence there are already tools to discuss the four paradigms.

4. THE FOUR APPLIED PARADIGMS: MECHANISTIC, SYSTEMIC, SYNCHRONISTIC, AND HPTD-M

4.1 Mechanistic

Cartesian (referring to the philosopher Descartes) or Newtonian (referring to the father of classical physics, Newton). In the humanities, some are designated as positivists. This paradigm focused on causality, objects, and cause-and-effect relationships, typical of machines. The predominant reference is dualism, within the principle of separability. The main element is analytical/diabolical. There is an analogy with the Greek view of *SOMA*, in which only matter exists. This is the paradigm of most Modern-age scientists since the late 18th century. So, in this reductionist approach, the physical matter *SOMA* is separated from *PSYCHE*.

4.2 Systemic

The idea of systems involves sets of parts or elements that are organized and interconnected with each other. This paradigm is focused on processes, interactions, and relationships, not on objects - cause-and-effect relationships are not clear, in feedback, as in living systems that self-regulate in this interaction; consciousness arises as an effect of living processes, not existing without them; the predominant reference is duality, with analytical and synthetic elements, diabolical and symbolic, resulting from the sum in dialogue with the *PSYCHE*, because there are psychological interactions with matter; beyond the view of consciousness restricted to living processes, this paradigm differs from HPTD-M because it is more scientific.

One of the promoters of this paradigm is the Ph.D. in physics and environmental activist Fritjof Capra, especially in his books *The turning point* and *The web of life*, including a 1996 interview describing his systems theory through living organisms: [21], [22] and [23]. As an evolution of mechanism, the systems view considers that there is an interaction of various causes and effects between objects, so the attention turns to processes, since these cause-effect relationships are not clear, with constant feedback between them. Thus, subjective and psychological factors arise. However, there is a similarity with mechanism, because in both paradigms the consciousness is inherent to processes or objects of each study considered, and there is, therefore, no consciousness without them.

4.3 Synchronistic

Consciousness is independent of living processes. The predominant reference is dualism because there is a disregard for the object. The main element is synthetic, symbolic, correlated to the personal sphere, the vision of *NOUS*, the "divine" part revealed by meditation.

The idea of synchronicity is related to significant coincidence [24], to the meaning in the broader context, as opposed to causality. It was conceived by Carl Gustav Jung, a Swiss psychiatrist who developed the Analytical Psychology that complements Freudian Psychoanalysis.

"Synchronism" was apparently the first term that Jung used in this sense of a synchronic event or significant coincidence, as an explanatory principle of parallel physical and psychic events, of equal importance and complementary to the principle of causality. [25]

Jung understood causality to be the way to explain the links between successive events (linear cause and effect relationships), the paradigm, and the prejudice of the West, while synchronicity designates the parallelism of time and meaning between psychic and psychophysical events, the prejudice of the East. The concept of synchronicity, conceived by Jung, is connected to events that have a significant coincidence for the observer, a sense. As the etymology shows, the term has to do with time or, to be more precise, a type of concurrency. Instead of concurrency, the concept of significant coincidence of two or more events can be used, where something other than the probability of chance is involved. Causality is the way to explain the links between successive events, while synchronicity designates the parallelism of time and meaning between psychic and psychophysical events. [26].

Through modern physics, Capra, reviewed by Jungian von Franz in terms of psychology technicalities, corroborates Jung's synchronicity theory:

In transcending the rational framework of psychoanalysis, Jung also expanded Freud's deterministic approach to mental phenomena by postulating that psychological patterns were connected not only causally but also acausally. In particular, he introduced the term "synchronicity" for acausal connections between symbolic images in the inner, psychic world and events in the external reality. Jung saw these synchronistic connections as specific examples of a more general "acausal orderedness" in mind and matter. Today, thirty years later, this view seems to be supported by several developments in physics. The notion of order--or, more precisely, of ordered connectedness has recently emerged as a central concept in particle physics, and physicists are now also making a distinction between causal (or "local") and acausal (or "nonlocal") connections. At the same time patterns of matter and patterns of mind are increasingly recognized as reflections of one another, which suggests that the study of order, in causal as well as acausal connectedness, may be an effective way of exploring the relationship between the inner and outer realms. [21], pp. 362-363.

The vision of *NOUS* is another way to show the synchronistic paradigm. Several Eastern philosophies and religions lead us to this reference, in a way considering the material world a kind of illusion, *Maya*, overvaluing the spirit and symbolic signs that synchronicities represent. Linked to this vision are the instruments of meditation and prayer.

Finally, the synchronistic paradigm can be seen, in a simple way, by **meaning** in the broad sense (*soft skills*: the sense of emotional and intuitive intelligence). It is a complement to what is usually seen in the Modern Western way as **rationality** in the broad sense (*hard skills*: rational and empirical intelligence). For the demonstration of meaning and rationality connection to the types of skills and intelligence, see Figure 11 of HPTD-M theory: troubleshooting and requirements [6].

4.4 HPTD-M

An integration and dialogue between all visions, *SOMA*, *PSYCHE*, and *NOUS*, with the reference of duality, analytical and synthetic elements, diabolical and symbolic. This viewpoint not only dialogues with modern technoscience, philosophy, and art, but also rescues the Egyptian Hermeticism, the ancient Greek philosophy, the Chinese Taoism, the Indian Buddhism, the primitive Christianity, the Alchemical European tradition, and other protosciences that are not merely analytical. It's a holistic view (holological and holopractical).

The HPTD-M paradigm integrates all three visions, promoting dialogue between them. Unlike synchronism, it is not opposed to the mechanism prevailing in most official sciences, as in allopathic medicine and Freudian psychology. Nor does it contradict the synchronism and the systemic reference, the latter more scientific, but seeks to integrate them. Due to the reality to be faced, either paradigm can be

applied more effectively, without prejudice. To make this clearer, we can give some examples related to the cure of diseases. In pure physiological origin, be it genetic, contamination by toxic elements of the environment, or even resulting from an accident with physical trauma, it is appropriate a mechanistic medical intervention, will be more appropriate and effective. Even in diseases of psychogenic or psychosomatic origin, if there is an emergency with the danger of death, mechanistic intervention is also necessary. After all, the progress of science and technology exists for this. On the other hand, if the disease is psychogenic, that is, it has some psychological origin that is not cured with allopathic remedies, one can seek the path of conscientious development, through psychic therapies, so that the mechanistic intervention is not a mere palliative to the mistaken psychological postures of the patient before life. This view is shared by the systemic paradigm. However, the HPTD-M paradigm goes further when it incorporates meditation and prayer as healing elements, typical of the synchronistic paradigm.

From all the above mentioned, it is understood that causality or cause-effect relationship is the Western way of seeing the world in terms of "knowing", while in the East the synchronicity or sense of things is what permeates the search to "understand". In this sense, "understanding", as something broader than "knowing", would be the basis of HPTD-M, by the encounter of causality, connected to reason, with synchronicity, linked to intuition.

At the end of the day, HPTD-M is the dialogue between causality and synchronicity, i.e., between (i) rationality in the broad sense = **rationality + feasibility** in the strict sense, and (ii) meaning in the broad sense = **meaning + reasonability** in the strict sense. This can be demonstrated through our HPTD-M model shown in Figure 11: troubleshooting and requirements [6].

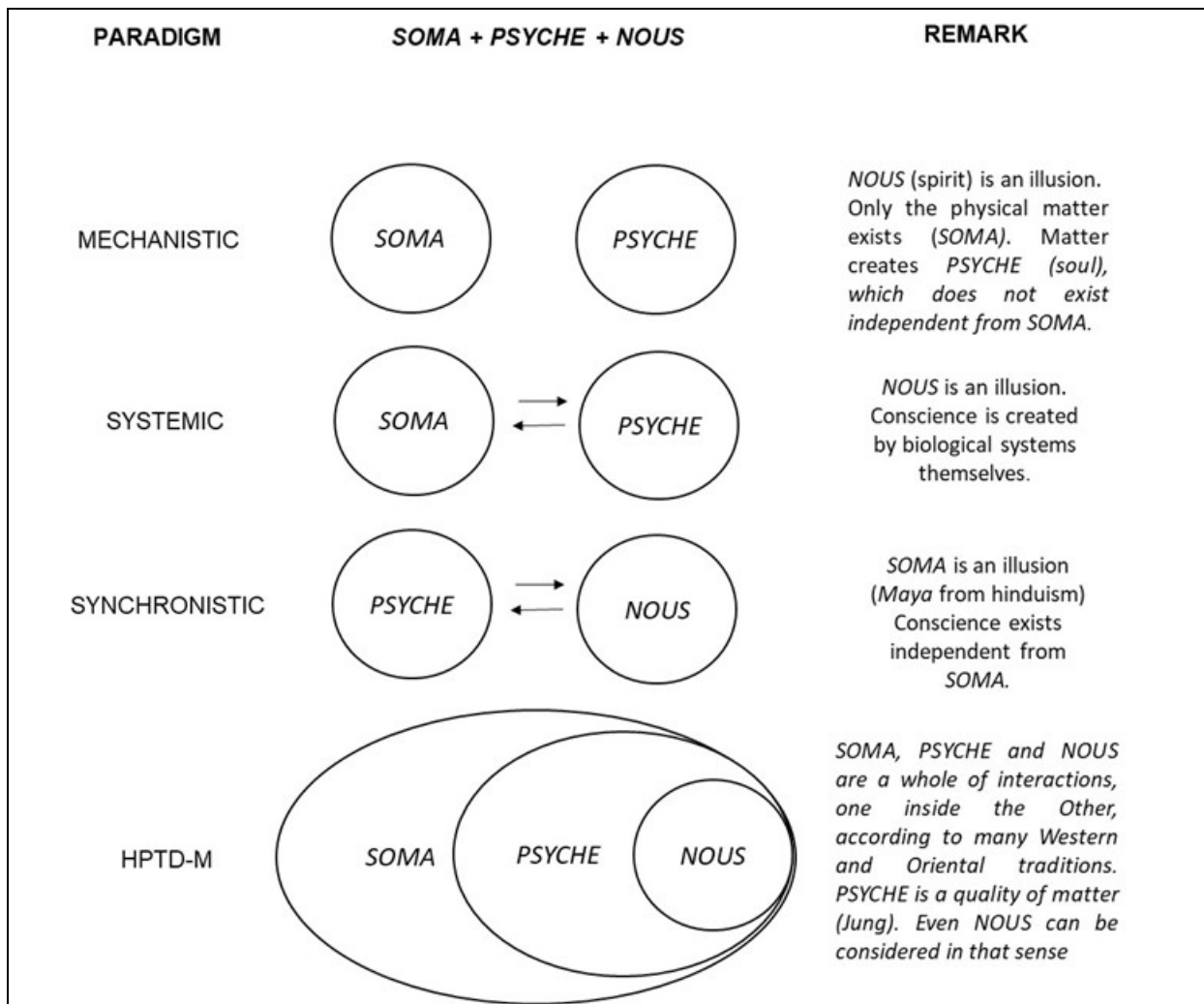


Figure 1: Synthetic diagrams - mechanistic, systemic, synchronistic, and HPTD-M paradigms. Source: author's HPTD-M theory research developed since 2011

Table 1: Analytical synopsis for mechanistic, systemic, synchronistic, and HPTD-M paradigms Source: author's HPTD-M theory research developed since 2011

PARADIGM	Focus	Duality vs. Dualism	Methods
MECHANISTIC Causality	Object Machines Quantitative and linear thinking	Dualism One opposite	Analytical and Diabolic
SYSTEMIC Interactivity	Subject and Object Living processes Interactive non linear processes	Duality Interacting opposites (one and another)	Analytical and Synthetic, Diabolic and Symbolic
SYNCHRONISTIC Synchronicity	Subject Observation, meditation: <i>mindfulness</i> Meaning or sense in a broader context	Dualism	Synthetic and Symbolic
HPTD-M Causality, Interactivity, Synchronicity, Dialectics	Subject and Object Interaction and integration (all approaches)	Dualism or Duality: the best option considering the concrete cases	Analytical and Synthetic, Diabolic and Symbolic

As a civil engineer with an emphasis in sanitation, post-graduated in engineering economics, and with MBA in corporate management, our mindset tendency is to have a concrete and empirical approach to understanding how reality works and to

focus on problem solving based on the dialectics of human phenomena through cost-benefit analysis models, a type of dialectics or duality: cost vs. benefit. However, in cases with few and well-behaved variables, the mechanical phenomena approach is much simpler and useful to deal with as a troubleshooting instrument.

5. FIRST EXAMPLE CONNECTED TO HPTD-M: PSYCHOSOMATICS (PSYCHE AND SOMA)

PSYCHE and *SOMA* interact in a dynamic balance, in harmony. Unbalances are supposed to be solved at the emotional and/or mental/intellectual level, but ultimately are resolved physiologically in the human organism, if the unbalance remains not solved at the psychological level. This is the psychosomatics approach.

For example, through psychotherapy one can understand some unconscious defense mechanisms, which avoid dealing directly with emotional pains:

a) **Escaping** to the symbolic/noetic world, as if our physical and concrete world were an illusion, not understanding that emotional conflicts are part of the learning processes. Meditation and mindfulness can be a tool to improve our intuition, our insights, and our creativity, but it is only a means, not an end by themselves.

b) **Rationalizing** everything, as if the mere logical comprehension of a problem would automatically imply the solution. This defense mechanism tends to be the most common in our Western rational culture.

c) **Dramatizing** the emotion, like in a theater, as an unconscious way of not dealing directly with the emotional pain. It can be even an intermediate resource to get used to the pain before confronting it directly.

d) **Somatizing** unconsciously, as a last systemic resource to balance the escape from the emotional pain. When a psychogenic disease happens, it means our psyche would not accept the problem or could not deal with it consciously, so the last solution to balance our system is physical.

Everybody has emotional pains and cannot hide from them. We have to learn from our mistakes, psychosomatics is clear in that sense. If an unbalance gets to the somatic level, it means the psychic level could not deal with the problem. That is what Jung called psychogenic diseases [20]. It is the last resource for harmonizing the system, as a whole.

Of course, there are other somatic disturbances, such as hereditary or external influences, such as chemical intoxication and radiation: those are not psychogenic diseases.

In this sense, Figure 2 presents the psychosomatic process through the interaction between the object (external environment) and subject, the internal environment of each individual. There are four levels of subtlety that correspond to our types of intelligence. These levels are:

- i) Physiological (the organism's physical balance).
- ii) Energetic (the vitality to perform activities).
- iii) Emotional (the feelings).
- iv) Intellectual (the rationality).

Those levels can be related to a four-intelligence model, as already explained deeply in one of our articles [35]:

- a) Empirical – concrete.
- b) Emotional – subjective.
- c) Rational – objective.
- d) Intuitive – abstract.

As far as psychosomatics is concerned, there is the transdisciplinary article on healing and health systems: *Integralist-transdisciplinary Benchmarks*, from Dr. Muresan [27]. Summing up some ideas presented in the paper:

- a) There is a connection between thoughts, emotions, and illness.
- b) The more we defend ourselves, the slower we develop.
- c) An acute infection is a result of violent emotion, for a short time.
- d) A chronic infection refers to a negative emotion that has existed for a long time.
- e) An infection indicates an accumulation of negative emotions.
- f) A viral infection indicates that someone else is in control of your life.
- g) Inflammation can indicate your opposition to change something that is necessary in your life.
- h) The immune system is directly related to your emotional states. Strong sufferings reduce its strength.

Our Figure 2 model was developed much before the examining Dr. Muresan article in 2021, but the convergence is clear.

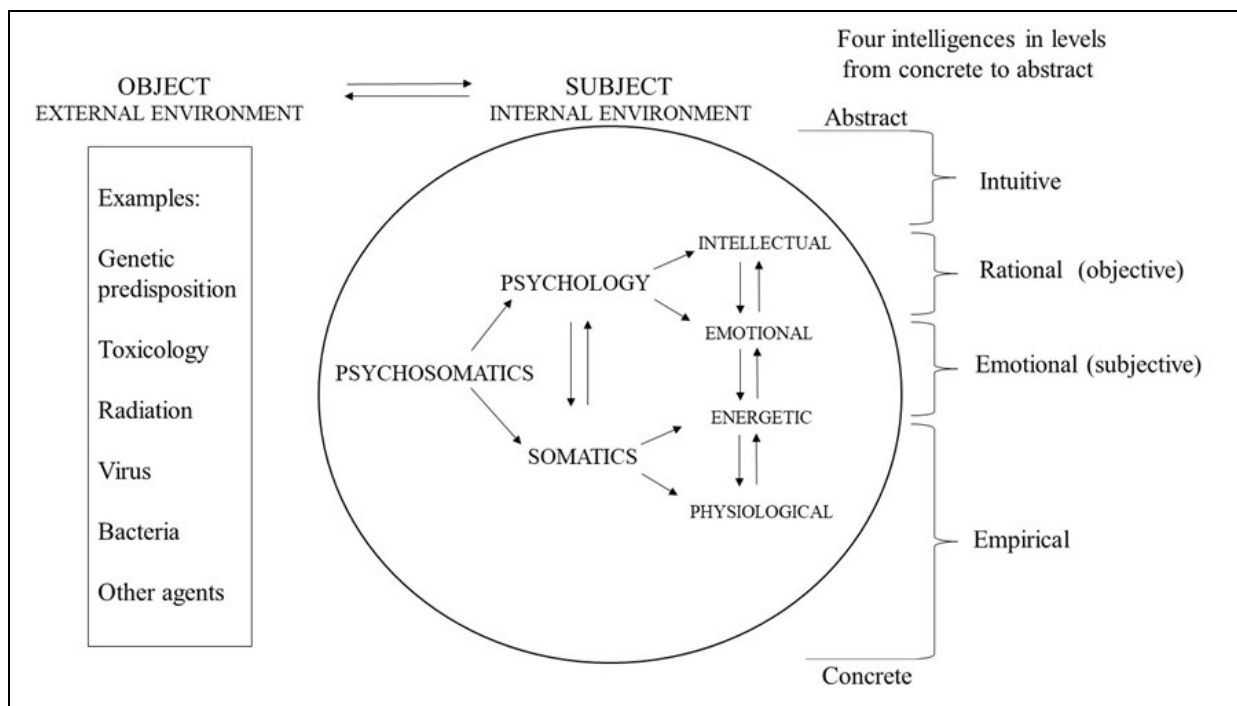


Figure 2: Psychosomatics process

Remarks: The basis from the concrete to the abstract in the top could be considered levels of Jungian conscious. The top of abstraction (abstract intuition) can be seen as the unconscious Consciousness is brought from the unconscious through intuition insights in this model

Source: author's conception

6. MYTHOLOGY INTEGRATED WITH LOGIC AS TROUBLESHOOTING – THE HPTD-M VIEWPOINT

Mythology is the study of myths, legends, and their interpretation in a culture. Our HPTD-M theory understands mythology vs. rationality as a duality, one polarity complements the other for a more complete view of reality. Myths are complex folk or religious stories, reflecting the views of those who lived at the time they were created. It is usually a narrative in which one uses symbolic language, which seeks to portray and describe the origin and assumptions of some culture, in addition to explaining the creation of the world, the universe, or any subject that is difficult to understand. As a rule, mythology is related to the society of its origin. In various religions, mythology is present in some way. According to Campbell [28], there are four functions of mythology:

a) Mystique: reconciliation of consciousness with the preconditions of one's own existence. Examples: (a) when we prove the fruit of the tree of good and evil and lose animal innocence, or (b) redeem the consciousness of the feeling of guilt.

b) Cosmological⁶: formulate and transmit an image of the universe.

c) Sociological: validate and maintain some specific social order, endorsing its moral code.

d) Psychological: shaping individuals according to the objectives and ideas of various social groups.

Cosmological and sociological functions change more radically over time, mainly due to advances in technology. For example, the revolutions and paradigm shifts caused by Copernicus' discovery in the 16th century that the earth revolved around the sun, abruptly changed the idea that the Earth was the center of the Universe.

On the other hand, mystical and psychological functions are more stable, somewhat independent of time and culture. These are the ones that most matter to the application that involves interpretation at the subject level, that is, symbolic, excluding those of merely objective character, that is, logical or analytical.

Several cultures see reality throughout history through this symbolic instrument of mythology. In this vein, Franz states that in the ancient Greek world there were no distinguished natural events external from the internal [15], which is corroborated by the physicist Nicolescu, for whom the Premodern man had no will of his own, but a magical-vitalist vision of the world, in which everything would be an expression of God's will. Thus, the man of this period would have the subject immersed in the object. Nicolescu divides the relationship between subject and object into three periods of history. In pre-modernity, the subject was immersed in the object. Everything was a dash or signature of a higher sense. The world of premodern man was magical. In modernity, subject and object are totally separated by a radical epistemological cut, thus allowing the development of modern science. The object was there, to be known, deciphered, mastered, and transformed. In Postmodernity the role of the subject and the object are changed in comparison to modernity and reverted in comparison with Pre-Modernity: the object, then considered as outside the subject, however, is a social construction. It's not really "there." [29]

The Greeks were an exception in Premodernity, to them does not apply this dominant question in the Middle Ages posted by Nicolescu. The Greeks became rational, invented logic from mythology, and brought myths to logic, something that gnawed at philosophy and then science. In addition, they were forerunners of the theater, recognized today as one of the forms of therapy. Theatre Tragedy is one of the possible instruments of dealing with the suffering of life, as in a process of

⁶ According to psychiatrist and theater director Bernardo de Gregório, for the Greeks there was a duality between *chaos* = disorder and *cosmos* = order. In addition, they invented logic, which comes from *logos*, hence the meaning of the cosmological term, the logic of the order of the universe. [30]

catharsis, recognizing it. Satire is the way to laugh at this suffering, using humor to make it lighter. In the Greek theater in the morning the satire was staged and in the afternoon the tragedy. Those are rituals comprising the current idea of the theater, whose current symbol is the image of the two masks together, the comical and the tragic.

By the way, the Greeks did their staging with masks, which inspired Jung in his psychological concept of persona. It is the mask in terms of the social role that we interpret, as in the theater. [30]

Then, logic can't be separated from mythology, in point of view, otherwise, it won't be psychologically sustainable.

For Crema, the death of the hero in myths represents the denial of the tendency to a model which needs to be overcome to assume individual authorship. Jung has found that Christ never imitated anyone and never followed a model. Everybody has to walk a path of their own. You should not necessarily be a Christian, but you must accomplish Christ in you.

Weil, by his turn, describes a quaternary structure of the psyche by a kind of transdisciplinary pyramid, involving the basis with the four epistemic ways (technoscience, philosophy, tradition, and art) and transition to the top of the pyramid with four states of conscience: waking, dream, sleep, and transpersonal. [35]

In our opinion, considering Jung, the basis of the pyramid could be considered the conscious, and the top the unconscious. The dialogue between conscious and unconscious is the Jungian way (see Figure 3).

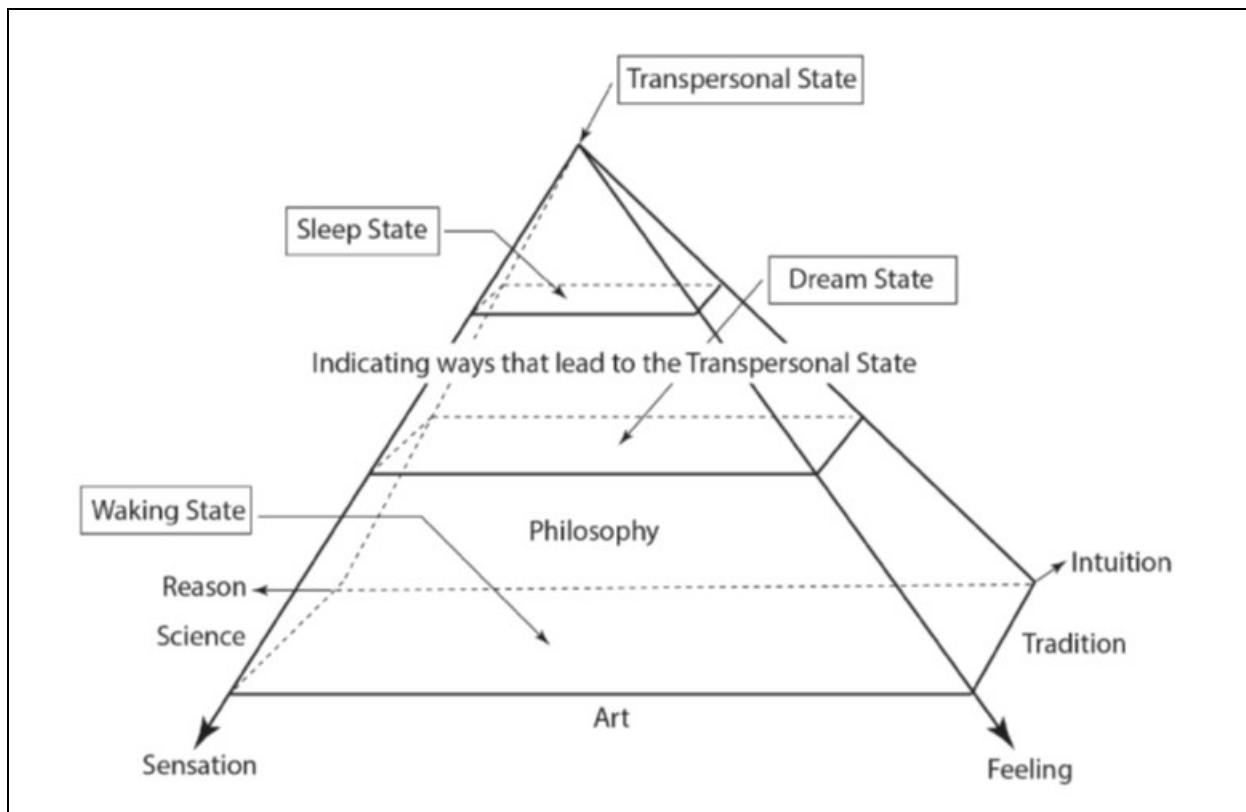


Figure 3: Transdisciplinary pyramid based on Weil

Remarks: The basis could be considered the Jungian conscious (the four psyche functions and the four epistemic ways). The top could be seen as the Jungian unconscious (transpersonal state) In the middle, levels of semi-consciousness

Source: Free translated from Weil in our published HPTD-M Theory. [10]

The 20th century has shown a lot of modern myths in cinema and television, but our Western rationality tends to diminish them as something childish or naïve. Our personal experience with psychosomatics, including personal diseases, is in the context of not seeing emotional paths.

Those modern myths and symbology can be applied to dream interpretation, which can be understood scientifically as an energetic flow from the unconscious, according to Franz. [15]

There is a need for dialogue between our physical, emotional, intellectual, and intuitive systems, symbolized by the well-known story of *The Wizard of Oz*, portrayed in the American 1939 film⁷

⁷ More about the movie *The Wizard of Oz* of 1939 and the children's book of 1900 at: <https://www.britannica.com/topic/The-Wonderful-Wizard-of-Oz>.

The main character is an orphan, Dorothy Gale, who lives with her uncles on a Kansas farm in the United States when she is transported by a hurricane to the Land of Oz. This Earth seems to us a form of representation of the dream world. In Oz, Dorothy has to reach the Emerald City, following a yellow brick road, in which she finds three figures: the Scarecrow, the Tin Man, and the Coward Lion.

These three characters join her on the journey. Each one craves something different: the Scarecrow wants a brain to think about, the Tin Man a heart to love, and the Coward Lion wants courage. In the paradigm of vehicles of manifestation of consciousness, the three, in this sequence, show in a certain way the path of self-development. First, in the condition of "Scarecrow", after some experiences and experiences, the man wants to go beyond his instincts to have a "brain", that is, develop the mental part. However, after a certain level of evolution, intellectual development leaves him with the feeling of incompleteness, illustrated by the "Tin Man" who seeks to have a heart, or life becomes cold and robotized as the metalized can, due to hypertrophy of the intellectual part. After being opened to virtuous feelings, such as love, we also face negative emotions, such as fear, represented by the "Fearful Lion", who is in search of courage. The expression of feelings is directly related to fears, in interactive processes. If we open ourselves to emotional expression, we have to confront our fears.

If we can't deal with our fears, we block all the feelings, including the good ones, and we're back to the Tin Man. But If we look at our fears, our anguish, our shadows, observing them and managing them in dialogue with our thoughts, we open ourselves to a broader universe of existence.

Thus, in the story of Oz, the yellow brick road seems to represent the paving of the path through mental control, to be integrated with our emotional part. Yellow, in some traditions, is symbolically related to intellectuality. However, mental control should not be confused with blocking feelings by analytical hypertrophy, represented by the "Tin Man", something that can occur when we do not have the ability to consciously confront repressed emotions.

The Emerald City, the final goal of the journey, is suggested by the green color and something valuable. Green, in the light spectrum, is in intermediate frequency, so it is often symbolically linked to the balance of opposites, to healing, the ultimate goal of conscious development. It would be something like the Philosopher's Stone, the quintessence of Alchemy tradition.

Finally, Dorothy seems to symbolize intuition or even the Being in her journey in the search for intuitive intelligence, which uses the vehicles of manifestation to be

integrated: physical, emotional, and intellectual, respectively represented by the Scarecrow, the Lion, and the Tin Man.

This quaternary structure of psychological Jungian functions (sensation, feeling, thinking, and intuition) appears in television serials and films, which can perhaps be considered modern myths. When the authors create their characters and stories, they are possibly unaware of this issue. They tend to capture this archetypal structure intuitively or unconsciously.

Take, for example, the American *Star Trek*⁸, from 1966 to 1969. The main protagonists are clearly identified with the four function types: Captain Kirk is intuition with his creative leadership and ability for foreseeing problems, Mr. Spock is thinking, pure logic, Dr. McCoy is the feeling, with his emotion and indignation, and finally, engineer Scotty is the sensation, in his empiricism operating the ship.

Another American serial, from the 1990s (1998-2004), *Sex and the City*⁹, also features four main characters: Carrie Bradshaw, a creative writer and main protagonist, intuition; Miranda Hobbes, a very rational lawyer, thinking; Charlotte York, the emotional, the feeling, and finally Samantha Jones, a pragmatic and sexually hyperactive publicist, the sensation.

The idea of mythology in dialogue with logic aims at evidencing that pure logic does not work, as well as the pure myth. The symbolic language of mythology complements the diabolic view of logic, the synthetic method, and the analytic method, one is not complete without the other. This prolific dialogue or dialectics process is very well expressed in the case of Altinópolis city, considering the concrete results obtained by Mayor Hyssa, as an example of application in section 7.

Finally, in the point of view of the HTD-M theory, which we created considering our experience as engineer and manager, as a generalist focused on problem-solving: mythology is indeed a form of language for troubleshooting since the Greeks creengineersated logic through mythology. So, in our opinion, the dialectic process between mythology and logic can be considered a type of applied transdisciplinarity, as Jungian therapy shows in praxis. Understanding myths is crucial to comprehend the language of dreams, which is most often symbolic, subjective, and not objective with premonitory character. In various traditions, there is the myth of the great hero, the one who wins the confrontation with monsters, a theme that sometimes also appears all over the world.

⁸ More details about the *Star Trek* American Television Series are available at <https://www.britannica.com/topic/Star-Trek-series-1966-1969>.

⁹ More details about the *Sex and the City* TV series are available at: <https://www.britannica.com/topic/Sex-and-the-City>

7. SECOND EXAMPLE CONNECTED TO HPTD-M: UNCONSCIOUS AND DREAMS (NOUS AND PSYCHE)

Dreams are an example of how the unconscious intuition (*NOUS*) can present itself in a form of images or symbols for the *PSYCHE*, in the subjective-imaginal or in the objective premonitory forms.

7.1 Unconscious

For Crema, the collective unconscious is racial memory, the human history inherent to the psyche, the objective mind of the species, consisting of archetypes, structuring, and virtual images, a symbolic instinctive structure that we inherit as the anatomical and physiological structure in the somatic dimension. It is an objective, impersonal, or superpersonal psyche inhabited by primordial images, a manifestation of a deeper *animic*¹⁰ extract where seminal and universal images of the human being are found. [6]

Franz presents a new idea, which Jung would not have used, the physical concept of field to explore what Jung calls the collective unconscious, a field in which the archetype would be the only point activated. According to Franz, Wheeler, for example, defines matter as an electrodynamic field in which particles are the excited spots. Franz also makes an analogy and proposes to use the hypothesis that the collective unconscious is a psychic energy field, in which the excited points are the archetypes, and how neighborhood relations can be defined in a physical field, neighborhood relations can be defined in a field of the collective unconscious [24]. In other words, our conscious representations are sometimes ordered (or arranged in a scheme) before we become aware of them. [12]

So, Franz's idea of the collective unconscious as a psychic energy field is consistent with the concepts of family unconscious and co-unconscious, if we think that in the Family Constellations therapists themselves speak of coming into resonance with the respective "field", so that each representative can then tune with his/her role in the sessions.

The Jungian purpose, as seen in the concept of *individuation*, is to bring from the unconscious the conscious in a process of consciousness development. Those two

¹⁰ i.e., from *anima* = from the "soul".

instances (conscious and unconscious) are balanced in an interactive process. The unconscious itself implies another duality: It can be personal or collective. Thus, consciousness development occurs not only through the interaction between personal conscious and personal unconscious but also between personal conscious and collective unconscious.

6.2 Dreams

In a transdisciplinary view, Crema states that, as Jung postulated, the dream is a personal myth and the myth is a collective dream. What evokes the heroes of universal mythology is the indispensable path toward the full realization of human potential. Lucid courage to transgress the infirmity of the trivial and mediocrity, what Crema calls *normosis*. Confronting and daring to fly beyond *normosis* is indispensable and represents the challenge of the evolutionary adventure, in the initial process of the individual assuming the conduct of his own authorship. However, the hero must be transcended to encounter God. The death of the hero represents the denial of the tendency to a model which needs to be overcome to assume individual authorship. Jung has found that Christ never imitated anyone and never followed a model. Everybody has to walk a path of their own. You should not be only a Christian, but also accomplish Christ in you. The true path is not the one that leads us to the top, but what takes us deep to the unknown that leads us beyond. Paradoxically, according to the Jungian view, the development of the Christian myth should refer to Pentecost, when, in alchemical flames, the Spirit revealed Himself to the apostles, making them whole, doubly born of the flesh and spirit. [6]

In a scientific approach, Franz, who is an expert in the analogies between physics and Jungian psychology, conceives that an individual is a relatively closed system, so there is energy conservation. Therefore, if one does not have energy in the conscious we assume that it is somewhere in the unconscious and vice versa because the amount of psychic energy available to the individual is more or less the same. However, Jung points out that it cannot be measured quantitatively, such as energy in physics. In this context, dreams are an energetic process, as a visualization of the energy flow from the unconscious. The same is true for fairy tales and myths of archetypal forms of manifestation. You can always look at them from an energetic point of view. There is a relationship between physical and psychic energy and, while physical energy can be measured quantitatively, we still have no way to measure the amount of psychic energy, except for the feeling of awareness and intensity. For

Franz, the feeling is what gives us guidance when we talk about something that moves us, not rationality. [24]

Dreams can be one of the forms of expression of personal content or symbols of various levels of collectivity, even archetypal, to bring to consciousness something we need in our *individuation* process. Some inspirations or creative insights can come from the personal unconscious, while others come from the collective one, which manifests itself through various symbols, including archetypes at the broader level (a concept that has existed since Plato).

For Jung, as far as we can judge through dreams, the unconscious takes its deliberations instinctively and seems to be directed mainly by instinctive tendencies, represented by corresponding forms of thought – that is, by archetypes. Archetypes are thus endowed with their own initiative and also with specific energy, which is peculiar to them. [12]

To interpret a dream it is necessary to be clear about its context, whether they are messages from our "inner master", something that our unconscious must bring up, or something related to projections from our daily life, physiological problems, or expressions of what was repressed in childhood, as Leloup describes – free translation of the Portuguese issue:

For example, there are dreams in our lives that are not simply dreams. Dreams in the Freudian sense of the term, as an expression of what was repressed in our early childhood; dreams that are not only memories of what we experience during the day, or dreams connected with digestion problems. We cannot forget this possibility, but neither can we forget that the creative word can speak to us through our dreams. There are the sacred texts of the traditions, there are the sacred texts of the heart, and there is also the sacred text of the night. During the night the creative word creates symbols and images that are not, for us, explanations of the world, but that can give meaning to our existence. We feel that in the dream there is a meaning, which is always much richer than what we can say about it. And that it can be for us as an inner teacher to make us go further. [19], p. 114.

Thus, Leloup differentiates the interpretation in relation to i) expression of what was repressed in our early childhood; ii) external events of everyday life; iii) physiological problems, such as indigestion, which may cause nightmares; or iv) internal issues of the unconscious, which may be something that our "inner master" wants to show us.

Also for Leloup, we should not rush to immediately interpret a dream; it is necessary to consider a psychic time to listen to it. Each one has a particular symbolic register.

The appearance of a horse in someone's dream, for example, will not necessarily have the same meaning, because people's experiences are different. [18] Then, it is necessary to allow the dream time to do its work, time to transmit its message to us. [31]

According to Franz, we must decide whether the interpretation of a dream will be at the level of the subject, of the personal unconscious, proper to the personality of the individual, or at the object level, information about phenomena and people on the outside. Usually, one notices the difference in the level of the subject by the absurdity. Thus, something very exaggerated in the dream will seem more related to the subject (symbol) than to the object (concrete reality). But one must be careful with dreams that warn us about external problems, which apparently may be absurd, but in concrete reality are not. An example cited by Franz is that of a boy who dreamed of being his fiancée a person of dubious reputation: then he discovered that she was a prostitute and broke off the engagement. This mode of premonition is not very common. That is, subjective interpretation, related to internal issues of the individual, tends to be more appropriate more frequently than the objective, related to external problems. [15]

Still according to Franz, in general about 85% of dream themes are subjective; therefore, subjective interpretation is recommended for most dreams. One should always start from the question: "What in me does this?", instead of simply taking the dream as a warning against third parties. [32]

Considering the subjectiveness of the majority of dreams, Figure 4 shows some symbolic issues: The elements earth (terrain), water (lake), and air (sky), together with a house and a flying saucer observed by a woman. This is just to show how many symbolic interpretations can be taken from a subjective dream.

As far as Hillman's *Alchemical Psychology* [33] is concerned, three of the four archetypal elements are present in Figure 4. Edinger, as a psychiatrist and Jungian Analyst, explains very well this type of alchemical interpretation in psychotherapy [34]: **earth** as sensation or *SOMA*; **water** as feeling, the unconscious or the emotional *PSYCHE*; **air** as the mental and logical part, another level of *PSYCHE*; and, if **fire** is involved, there can be two possible interpretations: i) **fire as concupiscence**, desire in many ways, often represented in ancient myths by dragons, or ii) **fire as the intuition, insight or inspiration**, like the Biblical Pentecost fire over the apostles.

In our experience of someone taking notes of own dreams since 1989, other questions regarding Figure 4 emerge:

- a) The house can be seen as the body, the *SOMA*, “where the soul lives” (*PSYCHE*). The same can happen with a car or automobile, as a “vehicle of manifestation of the soul”.
- b) Woman (black shadow below, right): if the dreamer is a man, she can be interpreted as his soul: (*PSYCHE*).
- c) Flying saucers (in the middle, right) can be considered in the context of modern myths that replaces the ancient ones, considering science fiction and the Modern collective unconscious (not considering objective views that can provoke discussions on UFOs, for example, this is not the case of the subjective and symbolic interpretation). About collective unconscious, see in our published HPTD-M theory the Figure 9 model. [6]



Figure 4: Dream scene representation in artwork

Author: Monah Di (psychologist, movie director and graphic artist). Published with author’s consent.

Source: <https://www.instagram.com/monah.di.33/> [...] *magic in pictures. They represent the unconscious manifesting itself. It's sensory and transports you to another world. [...]*

8. THIRD EXAMPLE CONNECTED TO HPTD-M: ALTINÓPOLIS CASE (NOUS, PSYCHE AND SOMA)

As a kind of Jungian synchronicity to all our HPTD-M theory, on December 22, 2021, Marco Ernani Hyssa sent us the movie *Lost Horizon*, which inspired him in his projects as a mayor for 16 years at Altinópolis city, in the state of São Paulo, Brazil. [35]

The film can be clearly related to the Plato cave myth, in a modern interpretation of the Shangri-la in the mountains as the outer world, the world of ideas, and the usual world, the world of senses. The duality of Plato's Ideas Theory is synthesized in the cave myth and in the Divided Line of four levels of conscience or knowledge: [36, 37].

Altinópolis is an example of inspiration (*NOUS*) as seen in the mayor Marco Ernani Hyssa, a public servant and pediatric doctor. His dream has been turned into reality in the small city, through the cultural transformation of Altinópolis as a whole (*PSYCHE*), corroborated by three Ph.D. theses, one in Italy and two in Brazil [38, 39, 40]. In that sense, there were also concrete urban engineering projects for Altinópolis (*SOMA*).

Besides being a pediatric doctor, Hyssa has an MBA in public policies at USP University (Brazil) and a holistic transdisciplinary post-graduation of UNIPAZ, Brazil. He is considered in France as someone that could implement a utopia and has many times been invited abroad to explain his transdisciplinary model for public management of Altinópolis – see the 2004 *Le Monde* article [41] and Hyssa's 2014 interview in the *Positive Economy Forum Le Havre* [42]. Figure 5 shows one picture taken from the *Le Monde* article.



Figure 5: View from *The Sculptures Square* at Altinópolis city in São Paulo State, Brazil

9. CONCLUSIONS

The applied HPTD-M approach is based on the principles of duality – interaction and integration of opposites, especially the analytical and synthetic methods, and the four archetypal elements. However, it is not a simplistic or a magical-vitalist approach, as far as modern physics and Jungian psychology are concerned. The

holistic view of reality, including holology (the study of the whole) and holopraxis (the praxis of the whole), can't be confused with opinion, belief, ideology, or religion. This can happen frequently with scientists, who consider themselves "exempt" and "impartial", not considering *soft skills* in dialogue with *hard skills* as troubleshooting. Finally, the core idea of this article is to promote the transformation of our Modern Western culture, mainly because of psychological sustainability and mental health, not only for troubleshooting in organizations, because in this paradigm there is an interaction between subject and object, the personal and the collective.

Connections have been established between our HPTD-M view and scientists like Newton, Goethe, Jung, Einstein, Bohr, Weil, and Crema, besides three author's originally from the French CIRET, not influenced by the Brazilian UNIPAZ: Canadian Dr. Mcgregor [11], French Professor Comby [13] and Romanian Dr. Muresan [27]. This is an indication that our HPTD-M is now converging also to the understandings of some members of CIRET, including, of course, the honorary president Dr. Nicolescu. [29]

At the end of the day, the HPTD-M framework is simple, a result of a dialectics approach to human phenomena complexity. Hopefully our theory can help in other fields of open knowledge, such as in education, sciences, economics, law, administration, psychology and politics, in order to transform the way those disciplines are understood by our Western culture.

KEYWORDS: HPTD-M, Transdisciplinarity, Mechanism, Systems, Synchronicity.

SETTING: The approach for the archetypal epistemic ways interacts with the types of intelligence: technoscience (empirical and rational), philosophy (rational and intuitive), tradition (intuitive and emotional), and art (emotional and empirical). Also, the four types of intelligence are translated into four requirements for problem-solving: feasibility and rationality (analytical method); reasonability and meaning (synthetic method).

METHODOLOGY: Our first approach for the HPTD-M theory was published in April/2022 and involves troubleshooting in open systems of knowledge. Our framework is ancient, although corroborated by modern physics and Jungian psychology, besides the idea of four archetypal elements and the Greek concepts of *SOMA*, *PSYCHE*, and *NOUS*. The HPTD-M dialectic process is evidenced through the integration of four paradigms: mechanism, systems, synchronicity, and the transdisciplinary view of HPTD-M itself. The instruments used for this integration: i) the four symbolic elements, namely earth, water, air, and fire; ii) the Greek concepts

of *SOMA* (related to earth), *PSYCHE* (related to water + air), and *NOUS* (related to fire).

RESULTS: Our findings involve three concrete applications of HPTD-M: i) Psychosomatics as the interaction of *PSYCHE* and *SOMA*; ii) the idea of **unconscious** connected to *NOUS* and **dream analysis**, related to *PSYCHE*; iii) the concrete example of **Altinópolis** Brazilian city showing how to put in praxis the transdisciplinary public management. As seen in four authors members of the French CIRET (International Center for Transdisciplinary Research), including the honorary president Basarab Nicolescu, there is an indication of convergence with some HPTD-M viewpoints.

REFERENCES (All internet links were accessed on May 28, 2022)

[1] Newman, William (2018). *Newton the alchemist: science, enigma, and the quest for nature's secret fire*. Princeton University Press.

[2] Max-Neef, Manfred A. (2005). Foundations of Transdisciplinarity. *Ecological Economics* 53 (2005) 5-16. Elsevier, p. 11. Full text available at: https://nova.org.za/assets/max_neef_2005_foundations_of_TD.pdf

[3] Jung, Carl Gustav (1961). *Memories, dreams, reflections*. Recorded And Edited By Aniela Jaffé. Translated From The German By Richard and Clara Winston Revised Edition Vintage Books. Full text available at: <https://antilogicalism.com/wp-content/uploads/2017/07/memories-dreams-reflections.pdf>

[4] Popova, Maria (2018). Nobel-Winning Physicist Niels Bohr on Subjective vs. Objective Reality and the Uses of Religion in a Secular World. *The Marginalian*. Full text available at: <https://www.themarginalian.org/2018/02/01/niels-bohr-science-religion/>

[5] Weil, Pierre (2000). *The change of sense and the sense of change*. Rosa dos Ventos. Issue in Portuguese.

[6] Crema, Roberto (2017). *The power of encounter: origin of care*. São Paulo: Tumiak Productions; Arapoty Institute; UNIPAZ. Issue in Portuguese.

[7] Costa, Leonardo da Silva Guimarães Martins da Costa. Quality of public expenditure and transdisciplinarity (2021). Conference paper presented at the 8th Annual Conference on Law and Administrative Justice from an Interdisciplinary Perspective. Bucharest, Romania. Full text

available at: https://www.researchgate.net/publication/356565750_Presentation_in_9_slides_and_full_text_article_QUALITY_OF_PUBLIC_EXPENDITURE_AND_TRANSDISCIPLINARITY_-_8th_Intl_Conference_Law_and_Administrative_Justice_-_Interdisciplinary_Perspective_-_Bucharest_Ro

[8] Costa, Leonardo da Silva Guimarães Martins da (2021). Transdisciplinarity of Physics, Philosophy, Economics, Law, Psychology and Politics applied to Public Administration. *African Journal of Governance and Public Leadership (AJoGPL)*. ISSN: 2789-2298 Vol 1. Issue 2. pp. 53-66, Dec 2021. Full text available at: <https://ajogpl.kab.ac.ug/index.php/1/article/view/28>

[9] Costa, Leonardo da Silva Guimarães Martins da (2022). Transdisciplinarity Theory Through Plato Philosophy, Taoism, Alchemical Tradition and Jungian Psychology. *Transdisciplinary Journal of Engineering & Science*, 13. Full text available at: <https://doi.org/10.22545/2022/00176>.

[10] Costa, Leonardo da Silva Guimarães Martins da (2022). HPTD-M: The Holopraxis Transdisciplinary Management Theory. Communication and Mindsets as the applied main example. *Transdisciplinary Journal of Engineering & Science*, 13. Full text available at: <https://doi.org/10.22545/2022/00175>

[11] McGregor, S. L. T. (2020). Transdisciplinarity and Transpraxis . *Transdisciplinary Journal of Engineering & Science*, 11. Full text available at: <https://doi.org/10.22545/2020/00134>

[12] Jung, Carl Gustav et al. (1964). *Man and his symbols*. J.G. Ferguson Publishing. Full text available at: <https://antilogicalism.com/wp-content/uploads/2017/07/man-and-his-symbols.pdf>

[13] Comby, Marcel (2019). De la mythologie à la vision teilhardienne. Article published in the *magazine Présence*. Issue in French. Full text available at: <https://lavoixlila.files.wordpress.com/2019/09/de-la-mythologie-c3a0-la-vision-teilhardienne-1.pdf?msclkid=e49f7986af6711ecb9cc0dcb91ec9563>

[14] Franz, Marie-Louise von (1980). *Alchemy – an introduction to the symbolism and the psychology (studies in Jungian psychology)*. Inner City Books. Full text form the Portuguese issue (Vagalume, Barcelona, 1991) available at: <https://docero.com.br/doc/nx5cvcs>.

[15] Franz, Marie-Louise von (1980). *Projection and re-collection in Jungian psychology: reflections of the soul*. Open Court Publishing. Full text available at:

<https://pdfmedia.net/book/j8kcGhUBTxEC/projection-and-re-collection-in-jungian-psychology/marie-luise-von-franz>.

[16] Buckingham, Will et al (2017). *The Philosophy book: big ideas simply explained*. Dorling Kindersley.

[17] Kenny, Anthony (2007). *Ancient Philosophy: A New History of Western Philosophy, Volume I*. Oxford University Press, USA.

[18] Leloup, Jean-Yves (2011). *An art of caring: Alexandrian style*. Petrópolis, RJ: Vozes. Issue in Portuguese.

[19] Leloup, Jean-Yves & Boff, Leonardo (2001). *Therapists from the desert – from Filon of Alexandria and Francis of Assisi to Graf Dürckheim*. Petrópolis: Vozes. Issue in Portuguese.

[20] Leloup, Jean Yves (1994). *Texte de fondation du «Collège International des Thérapeutes»*. Author's own site page link:
<https://www.jeanyvesleloup.eu/Bibliographie/texte-de-fondation-du-college-international-des-therapeutes/>

[21] Capra, Fritjof (1983). *The turning point: science, society, and the rising culture*. Bantam Books. Full text available at:
[http://pustaka.unp.ac.id/file/abstrak_kki/EBOOKS/CAPRA%20Fritjof_Capra-The_Turning_Point_Science,_Society,_and_the_Rising_Culture_-Bantam\(1988\).pdf](http://pustaka.unp.ac.id/file/abstrak_kki/EBOOKS/CAPRA%20Fritjof_Capra-The_Turning_Point_Science,_Society,_and_the_Rising_Culture_-Bantam(1988).pdf)

[22] Capra, Fritjof (1997). *The web of life: a new scientific understanding of living systems*. Anchor Books.

[23] Capra, Fritjof (1996). Interview: The web of life. *Thinking Allowed TV*. Full interview available at:
http://www.youtube.com/watch?v=TLiRXM2oZ_U&list=PL943946701C4718FB.

[24] Franz, Marie-Louise von (1982). *On divination and synchronicity: the psychology of meaningful chance*. Inner City Books. Full text available at:
<https://pt.br1lib.org/book/3692320/53f5ab>.

[25] Jung, Carl Gustav (1984). *Dream analysis: notes of the seminar given in 1928-1930 / by C.G. Jung* edited by William McGuire. Princeton, N.J. Princeton University Press, 757 p.

[26] Jung, Carl Gustav (1973). *Synchronicity – an acausal connecting principle*. Translated by R.F.C. Hull. Princetown, N.J: Princeton University Press. Full text available at:

<https://ia801602.us.archive.org/2/items/223463118SYNCHRONICITYAnAcausalConnectingPrincipleJung/223463118-SYNCHRONICITY-An-Acausal-Connecting-Principle-Jung.pdf>.

[27] Muresan, Lucia (2020). Healing and health systems integralist-transdisciplinary benchmarks. Full text available at:
https://ciret-transdisciplinarity.org/ARTICLES/b25/36_Lucia_Muresan.pdf

[28] Cambell, Joseph – edition (1970). *Myths, dreams and religion*. New York: E.P. Dutton & Co. Full text available at:
<https://archive.org/details/mythsdreamsrelig00camprich/page/n3/mode/2up>.

[29] Nicolescu, Basarab (2010). Methodology of transdisciplinarity – levels of reality, logic of the included middle and complexity. *ATLAS TJES - Transdisciplinary Journal of Engineering & Science*. Vol. 1, No. 1, (December 2010), pp. 19-38. International Center for Transdisciplinary Research and Studies (CIRET), France. Full text available at: atlas-tjes.org/index.php/tjes/article/download/9/5.

[30] Gregorio, Bernardo de (2014). Interview to TV Brasil in December 15, 2014. Full interview available in Portuguese at: <https://www.youtube.com/watch?v=2uDYSwitcCY&t=1506s>.

[31] Leloup, Jean-Yves (2012). *The body and its symbols: an essential anthropology*. Petrópolis, RJ: Vozes. Issue in Portuguese.

[32] Franz, Marie-Louise von & Boa, Fraser (1994). *The way of the dream: conversations on Jungian dream interpretation with Marie-Louise von Franz*. Shambhala. Full text available at: https://www.goodreads.com/book/show/846202.The_Way_of_the_Dream.

[33] Hillman, James (2009). *Alchemical Psychology: Uniform Edition of the Writings of James Hillman, Vol. 5* (James Hillman Uniform Edition). Spring Publications.

[34] Edinger, Edward F. (1991). *Anatomy of the Psyche: Alchemical Symbolism in Psychotherapy*. (Reality of the Psyche Series). Open Court Publishing Company.

[35] Columbia Pictures (1972). *Lost Horizon*. Full movie in English available at: <https://www.youtube.com/watch?v=fSi1xhI2htE&t=2528s>.

[36] Plato (2013). *The republic*. Translated by Benjamin Jowett. Roman Roads Media, 2013. Full text available at:
https://files.romanroadsstatic.com/materials/plato_republic.pdf.

[37] University of Florida – College of Liberal Arts and Sciences (1999). *Plato divided line*. Chart available at: https://users.clas.ufl.edu/ufhatch/pages/02-TeachingResources/HIS-SCI-STUDY-GUIDE/0019_platoDividedLine.html.

[38] Marino, Mara Lucia dos Reis (2008). *Altinópolis una utopia brasiliana. Análisi di una esperienza di educazione alla pace e non violenza come pratica alternativa dell'educazione popolare*. PhD thesis in Pedagogy. Bologna: University of Bologna, Italy. Full text available at: <http://amsdottorato.unibo.it/1002/>.

[39] Saldanha, Vera Peguenini (2006). *Didática transpessoal : perspectivas inovadoras para uma educação integral*. PhD Thesis in Education in the area of concentration: Human Development and Education. Laboratory of Research Laboratory of Genetics, Psychodrama and Transpersonal Psychology. Campinas: Unicamp, Brazil. Full text available at: <https://repositorioslatinoamericanos.uchile.cl/handle/2250/1345919>

[40] Magalhães, Kelly Cristina (2016). *Altinópolis : por um projeto de paisagem*. PhD Thesis in Urban Engineering. São Carlos: Federal University of São Carlos (UFSCar), Brazil. Full text available at: <https://repositorio.ufscar.br/handle/ufscar/8259?show=full>.

[41] Le Monde (2004). *Altinópolis une utopie brésilienne*. *Le Monde Journal*. Article about Altinópolis city. Full text available in French at: https://www.lemonde.fr/archives/article/2004/10/01/altinópolis-une-utopie-brésilienne_381363_1819218.html.

[42] Hyssa, Marco Ernani (2014). 20min interview about Brazilian city Altinópolis (in Portuguese) with simultaneous translation to French. *Positive Economy Forum Le Havre 2014*. Full interview available at: <https://www.youtube.com/watch?v=VUt4wORb5y8&t=477s>.