THE GENERAL THEORY OF DYNAMICS SYSTEMICITY

Part 7 : The systemicity of perception giving sense to endogenous-exogenous events inducing to survival

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Abstract

"The Bioethism paradigm" (acronym for Biology-Ethology, ecology - Humanism) fosters universal specificities relative to the complexity of Life's processing, which in form of open systems, appeared on Earth from biochemical components and survival proprieties within propitious physicochemical environmental forces (J.-J. Blanc 1996).

For reference, the author's past proceedings were developed - part after part since 2004 - as the structure and chapters of a "General Theory of Metadynamics Systemicity". Its building blocks are being centered on the Universe diversity of x-dynamics: petadynamics teradynamics, gigadynamics', metadynamics', dynamics', microdynamics' and nanodynamics' systemicity. The set of X-dynamics are, in physics, multipliers defined in powers of 10^{15} to 10^{-6}, proceeding in increments of three orders of magnitude (10' or 1`000), such as: peta, giga, meta, kilo, micro, nano...

The publication of these works is meant to support the acquisition of a large transdisciplinary understanding of the "x-dynamics' systemicity world" that sustains the whole evolution of the Universe system's components as well as those of living entities (things, objects, individuals), while perceiving and experiencing sets of forces and fluxes. This is why the theory of Systemicity emerged from synergies as applying the principles of "The Bioethism Transdisciplinary Paradigm of *Universal Systems"* down to *"Living systems" both having their specific temporal survival"* that the author J.-J. Blanc developed since 1996.

- **"Systemicity"** is a notion that surges from interrelation, interaction, intrication…within interdependent synergies. The systemicity of atomic and molecular cycles has made and sustains both cosmic systems and Life's cycles on planet Earth along differential time periods (trillion of light-years to less than hours) and their specific retroactivity.
- **Intrication** is the quantum entanglement of a physical phenomenon that occurs when pairs or groups of particles are generated or interact in ways such that the quantum state of each particle cannot be described independently — instead, a quantum state may be given for the system as a whole, in other ways its metabolism status.
- **Measurements** of physical properties such as position, momentum, spin, polarization, etc. performed on entangled particles are found to be appropriately correlated.

The different parts of "X-dynamics Systemicity" are developed through a new "reading grid of natural structures and behaviors of entities, objects and things as adapting from "neighboring'" within "neighborhoods" (ecosystems) where they specifically cope with endogenous and

exogenous events and forces inducing to the retroactive temporal restructuring of their structure and behavioral aptitudes (*as in part 6*).

> **Neighboring** is "to associate in a neighborly way, to communicate with, to live side by side with, and to overlook and look out. Biological molecule sequences, while neighboring, are participating in the structuring and the evolution of "cosmobjects"(JJB), organism, species and entities along their reproduction abilities. It infers nature and extent of selective forces, those driving the evolving shaping of atom sets and organism genes (mutations). In other words, *as in this part 7*, "survival means" possess diverse perception, memory and experience tools that empower their adaptability to the permanency of all things to happen and change, i.e.: *they possess means as how to "give sense to things around from the interpretation of what's they perceive. The choice of the sense given may be lethal or propitious to their surviving.*

In order to exist, both objects and living creatures expressions are replicating and evolve thanks to their perception and feeling survival tools within global, glocal and local areas (ecosystems) and by their natural structures and behavioral components which shape some form of sytemicity processes that sustain their survival. Resulting actions and gene mutations are permanently changing both the endogen milieu and external environmental ecosystems metabolism and components quality (e.g.: means used from vision interpreting [1]the formation of a move or a feeling driving to its systemicity result like fear; the gravity effect of two masses as sustaining a balanced equilibrium, flying away…).

Subsequently, through ecosystems' 3D multi-layers, from proto-organisms to humans, their individualities take on specific social traits and behavioral statuses that account for the diversity of species to get developed and/or to go extinct. For example, when the Earth became a "snowball" from a nearly total glaciation (-600 Mo/y), the survival of some neighboring bacteria and micro-organisms escaping the drastic extinction of most species, conversely perceiving ways of adaptation, boosted up an extraordinary explosion of marine species bearing quite new functions (- 545Mo/y), that then after volcanic holes progressively reheated areas of the planet and boosted some organisms population revivals from the systemicity of sets of interrelated metadynamics and their symbiotic outputs propitious with adaptation and evolution.

The Universe's global environment generates x-dynamics such as cosmic petadynamics (black holes? Black energy?), teradynamics, gigadynamics and metadynamics cycles... in form of systemic forces, fluxes and moves occur within immense gas and particles neighborhoods. Interrelated, they are some of the main physicochemical cosmic, galactic, stellar, planetary and terrestrial feedback synergies from which x-dynamics systemicity retroactions emerge (i.e. rock cycles). Sets of systemicity results make atoms and molecules to participate in the structuring of matter and cosmic objects (nebulae, baby stars, stars and planets, waters and rocks), within a molecular world that originated from and after the "Big Bang" a nd the role of aggregation.

Furthermore, the physicochemical neighboring conditions for planet Earth to stabilize within the "Sun's green belt" was a thermodynamics and environmental balanced state issued from the presence of the Moon's mass aggregation at the right distance so as to become propitious for Life to "hatch" (gravity and tidal forces). Such favorable position, sustaining the Earth and Life's evolution by the development of x-dynamic adaptive pathways, is in some sort of a synchronistic status with universal objects survival cycles, forces, fluxes, moves and matter that as "*perceiving, giving sense and experiencing things*" is highly evolving *as to experiencing things*" in several synergetic manners, (e.g. cosmic objects feeling, plants natural emotional

[1] - **Interpreting:** as understanding (an action, mood, or way of behaving) having a particular meaning.

intelligence. . .). Perception tools are physicochemical and organic features treating signals-like neurons- or other microtubule as protein structures and links around brain networks. Microtubules are a component of the cytoskeleton[2], found throughout the cytoplasm. The microtubule can dynamically switch between growing and shrinking phases in this region ("search and capture model"), a matter of neighboring milieu.

Life as a whole and living entities, while neighboring around, are confronted with gravitation, electromagnetism, chemical and physical phenomena, and particularly with temperature and the "thermodynamics of entropy". Filtering their milieu symptoms and their environmental events signals, living creatures develop means of perception in ways their inner systems and organs such as the immune one, emotional brain with amygdala and reptilian area or vision with eyes are well fit drivers for supporting their survival behaviors.

The neighboring areas (mille-feuille as 4D-networks) are diverse but concomitant producing forces and fluxes that are dynamical drivers within the diverse ecosystems. Their systemicity results from actions of coalescence, conjunction, co-evolution, convergence, symbiosis, percolation, phase transition or threshold output, neighborhood adaptation, etc. Universally, these actions and mechanisms concern atomic, molecular and physicochemical world's permanently provoking feedback that drives the evolution of systemicity cycles and perception means. Because of the development of similarities in unrelated matters or organisms present in similar environments, a balanced equilibrium is necessary to sustain the whole of things to survive temporally. The disappearance of a link along a food chain completely disorganizes the ecosystem's metabolism endangering its sustainability.

Specific bonds and traits of structures and behaviors, as well as evolution trends for "surviving objects and living creatures" require a certain knowledge and a memory about actions-reactions (drivers) from ago-antagonistic signals and stimuli in order to give the propitious answer to an adaptation, then evolution of things. Issued from ecosystemic and socio-systemic metabolism and environmental statuses (geophysics, climate, predator preys networks of food chains…), these signals sustain things thanks to the x-dynamics systemic retroactivity results reigning about from the convergence of multi-symbiosis.

A Closer Look at Instincts

In animals, instinct has the inherent tendency to engage spontaneously into particular pattern of behaviors. Examples of this include a dog shaking after it gets wet, a sea turtle seeking out the ocean after hatching, or a bird migrating before the winter season.

This part of the theory, the 7th one, describes the major dynamics that symbiotically pilot "*key drivers"* that represent the general act of "symbiotic perception". This act, occurring at the cosmos and biological objects levels, is inducing to different physicochemical interactions and laws (gravity…), prolonged down to the Earth major dynamic drivers that induce to its survival as well as survival specifications, adaptations and an immense evolution n of bushy Life's species which hatched from water, oxygen, carbo dioxide, hydrogen and nitrogen…showing the four functions of such an happening:

- **Proteins: Amino acids, protection of the body,**
- **Lipid: Fats, store energy and build up cell membrane,**
- **Carbohydrates: Sugar, provides physicochemical energy,**
- **Nucleic Acid: DNA, RNA, provide an organism the knowledge of basic functions and genetics functions.**

[2] - **Cytosqueleton: a** microscopic network of protein filaments and tubules in the cytoplasm of many living cells, giving them shape and coherence.

One may easily understand here that human sociology shows such the diversity of neighboring comportments and effects issued from these basic perception outfits, both being endogenous and exogenous. Observing then, that the various effects of systemicity are universally giving sense to what happens, driving the dynamics systemicity results at survival tools to induce to with adaptation and evolution necessities. Thanks to perception capacities (instinct, intelligence,…) and a variety of memories (short, long term,,…) from which permanently emerge the symbiosis of differential qualities capable to give sense to things then to a survival timeline.

Keywords: bioethism**,** systemicity, survival, metadynamics, symbiosis, feedback, entropy, metabolism, synergy, convergence, coalescence, neighboring, perception, senses, organs.

THE INDIVIDUAL BRAIN PERCEPTIONS AND THE FIFTH SENSE

The major dynamics that drive most of living creatures adaptability, mobility, survival behaviors and evolution is issued from their usually having five senses, particularly eyes as a visual mean searching their way and/or some survival resources, seeing at perceiving who is and what is there, how behaving and or happening around the neighborhood (within the conjecture of their ecosystem and milieu …). which sets of surrounding conditions is present and adequate at a survival requirements of the moment.

Most of its dynamics, understand (an action, mood, or way of behaving) as having a particular meaning. Understanding that an action, mood, or way of behaving is having a particular meaning (contrasted with a universal senses) it is those symptoms that are sensed while it is managed at the level of the "thalamus", a relay station for motor and sensory information to the cerebral cortex:

> *"The cerebrum is the most highly developed part of the human brain and is responsible for thinking, perceiving, producing and understanding language. Most information processing occurs in the cerebral cortex. The cerebral cortex is divided into four lobes that each have a specific function. These lobes include the frontal lobes, parietal lobes, temporal lobes, and occipital lobes.*

The thalamus is either of two masses of grey matter lying between the cerebral hemispheres on either side of the third ventricle, that is relaying sensory information and acting as a center for pain perception. Below the thalamus which coordinates both the autonomic nervous system and the activity of the pituitary gland (controlling body temperature, thirst, hunger, and other homeostatic systems) is involved in sleep and emotional activity.

However, according to their genome structure and capabilities of adaptation with specific milieu conditions (darkness, air, type of water, undergrounds… and the major necessity at physiological orientation) creatures, from their physiochemical and biological status of evolution, develop specific vision substitutes utilizing other means but adequately fit as to sending proper signals into their brain, understanding what's happening (e.g.: hearing sounds or feeling vibrations, smelling, tasting…). Outfits that are either in form of a nose and moustaches , all sensing cells, odor or neighboring presence of a creature and mouth lips, palate and tongue savors...) which the symbiosis of dynamics systemicity and synergetic results transfer an adequate information to the brain (hypothalamus,…) which assemble the different decision making opportunities into endogenous and exogenous acts .

Perception:

From the Latin perceptio, percipio, it is the organization, identification, and interpretation of sensory information in order to represent and understand the environment components propitious with survival needs. Perception[3] is a permanent move that involves the interpretation of signals permanently issued from the physical or chemical stimulation of things, objects, events and reaction as to be translated within the physicochemical system networks of the brain (awareness, consciousness, cycles knowledge) and to satisfy the conjunction of survival fluxes requirements and/or environmental hazardous or current apparitions particularly fit as to sustain the dynamic balance of metabolisms, therefore survival.

Consciousness:

The state of being conscious; awareness of one's own existence, sensations, thoughts, surroundings interactions, etc. Also, the thoughts and feelings, that are collective and/or individual or an aggregation of people feeling like the moral consciousness of a nation. Consciousness is a complex patterns of activity (the systemicity of driver's[4] results) that occur in the network of nerve cells (also called a storage of data), a neurons concept of what is actually, in 2018, called a "cloud", in other terms, a site that stores data that are memorized as being lived and neurologically retained as learned experience readily available for survival needs.

Cognition:

"The mental action or process at acquiring knowledge and understanding through thought, experience, and the senses discriminating powers ." It encompasses the dynamic processes of thinking from knowledge, attention, memory and working memory, judgment and evaluation, reasoning and "computation", problem solving and decision making, comprehension and the production of language, etc.

Awareness:

The experience of things connected to the feelings and is located upstream of consciousness, which is part of the consciousness accompanied by words and images. Awareness therefore excludes consciousness, more precisely the awareness that signs the transition from awareness to consciousness.

> *Cette expérience branchée sur les ressentis se situe en amont de la «consciousness », qui, elle, est une conscience accompagnée de mots et d'images. "L'**awareness »** exclue donc la conscience, plus précisément la prise de conscience qui signe le passage de l'**awareness** à la consciousness.*

Habituation;

Many IRMs (innate releasing mechanism (IRM) can be explained by the theory of evolution (the major drivers sustaining species' life to manage the survival options at surviving - if an adaptive behavior helps a species survive long enough to be fruitful and multiply (such as a cat hissing in order to discourage an attack), many IRMs can be explained by the theory of evolution. The genes that coded for those brain circuits are more likely to be passed on. A heavily studied example of a fixed action pattern is that of feeding behaviors.

The intricate connections within buccal ganglia (see nervous system of gastropods…) form a central system whereby sensory information stimulates feeding. More specifically, a unique

[3] - Hypothalamus; a region of the forebrain below the thalamus which coordinates both the autonomic nervous system and the activity of the pituitary, controlling body temperature, thirst, hunger, and other homeostatic systems, and involved in sleep and emotional activity.

[4] - **Driver** : a mechanical component that exerts a force on another to produce motion or a circuit whose output provides the input of another circuit… and so on,,, illustrating the universality of dynamics systemitivity driving , usually in retroactive cycles, as being the evolving effect of a phenomenon or mechanical power, whatever area it is occurring in the Universe (cosmos and Earth life).

system of communication between three classes of neurons in the buccal ganglia are responsible for forming the neural network that influences feeding (then other functions).

Intelligence:

The ability to acquire and apply knowledge and skills. It has been defined in many different ways including the capacity to practice logic, understanding, self-awareness, learning, emotional knowledge an feelings, reasoning, planning, creativity, and problem solvings. Since most of such capacities are life's species capabilities at the different5 levels of their evolution standards, one must assume the fact that each of such dynamics generally d describes the ability of living species to perceive and infer those information that progressively fit with their survival and retain within their specific memory the surged knowledge necessary to sustain their survival, and to apply such survival functions as much as to structure and manage adaptive behaviors propitious with their survival within the momentous period they are confronted with environmental events.

5

Motivation:

Motives have been classified into "pushes and pulls perceptions".

Living species "push motives" concern the internal changes that have the effect of triggering specific motive states. Pull motives represent external goals that influence one's behavior toward them. Most motivational situations are in reality a combination of push and pull conditions.

For example:

- **Hunger, in part, may be signaled by internal changes: in blood glucose or fat stores, but motivation at eating is also heavily influenced by the convenience of food resources. Some foods are more desirable than others and exert an influence on a behavior which is thus, and often, a complex blend of internal pushes and external pulls. In other words, symptoms from the milieu and signals from the environmental areas induce to the adoption of survival reactions.**
- **Hunger and satiety are motivational sensations. Hunger represents the anatomical and physiological need to acquire energy resources (to eat food...) Satiety is the absence of hunger and is the sensation of feeling fully satisfied. It then describes the condition of individuals, people and populations who suffer from a chronic lack of sufficient food and constantly or frequently experience the sensation of hunger. In other words, "To survive is a natural process resulting in the evolution of organisms best adapted to the environmental dynamics which systemicity results symbiosis sustain survival postures.**
- **Territoriality: relating to the ownership of an area of land or sea, species are defending a territory, a usual dispute about acquiring a need, in ways of a resource sustaining a momentary survival.**
  - **What is motivation confronted with survival needs**
  - **"Whether to play or to survive, man, like any animal, must be constantly attentive to a multitude of signals and information from his environment. It is by analyzing this information that it will be able to act in an adapted way, in order to carry out the various functions of the organism:**

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[5] - **Motivation:**

- **To think: almost all the attributes of human minds are found in some animal or other.**

"The mind has the ability to give objects names and use tools, culture, in that they develop distinctive ways of doing things which are passed down by imitation and example (mimicry). Mirror neurons are nerve cells that fire when the sight of someone else's action triggers a matched response—they seem to be what makes yawning contagious. A lot of learning may require this way of linking perception to action—and it seems that, in people, so may some forms of empathy. The fact that those anatomical correlates keep turning up in non-human brains, too, is one of the current reasons for seeing animals as also being things with minds. There are mirror neurons; there are spindle cells (also called "von Economo neurons") which play a role in the expression of empathy and the processing of social information. Chimpanzee brains:

  - **have parts corresponding to Broca's area and Wernicke's area which are otherwise associated with language and communication,**
  - **also understand that they can manipulate the beliefs of others; they frequently deceive each other in competition for food,"**

Animals obviously show emotions such as fear, empathy…). They can be taken to be instinctual, similar to what happens when people cry out in pain. Fear is seemed as a conditioned reflex that they knew full well how to create. The real question is whether animals have feelings which involve some sort of mental experience. It has been described that protecting animals have been seen to pay a price for their compassion.

Brain mapping reveals that the neurological processes underlying what look like emotions in rats are similar to those behind what clearly are emotions in humans. As a group of neuroscientists seeking to sum the field up put it in 2012, "Humans are not unique in possessing the neurological substrates that generate consciousness. Non-human animals, including all mammals and birds, and many other creatures…also possess these neurological substrates."

- **to feed: for this it is necessary to find, identify and catch food and energy,**
- **to reproduce: it has to find and seduce a partner,**
- **to protect oneself by reacting at promoting combat... or escape,**
- **to maintain and sustain living without even having, in appearance, to think about,**

At constant levels for certain parameters of the organism able to survive such as sustaining temperature, quantity of water, food nin terms of proteins, vitamins and minerals..."

To Lane and Martin, energy supply is the key factor that separates the two major types of cells on the planet. The first group – the simple prokaryotes, such as bacteria and archaea – are small, consist entirely of single cells (or at most, simple colonies), and have little in the way of internal structure. They are very different to the eukaryotes, the group that includes all complex life on the planet, including every animal, plant, fungus and alga. Their cells are large, structured, and filled with many internal compartments. These include the nucleus, where DNA is stored, and the mitochondria[6], which act as tiny powerhouses (more on these later).

However, Lynch and Marinov provide an account of ATP expenses that ignores the most costly component of the cell—"ribosomes"—and the source of eukaryotic ATP—"mitochondria"[7]. When estimating cash flow within nations, the cost of government must be tallied, and tax

[7] - **Mitochondria**: An organelle found in large numbers in most cells, in which the biochemical processes of respiration and energy production occur. It has a double membrane, the inner part being folded inwards to form layers

income, too. Spending is constrained by income. Unlike governments, evolution does not tolerate deficit spending.

> *Sexual impulse and awe: the production of offsprings as a sexual or asexual process is somewhat related with food saying that the faculty of satisfaction and assessment of a body success is drawn through by sexual urge - all of the feelings resulting from the urge to gratify sexual impulses. In other words, it is relating to instincts, physiological processes, and activities connected with physical attraction or intimate physical contact between individuals.*

There is a link between mind and society which animals display. The wild animals with the highest levels of cognition (primates, cetaceans, elephants, parrots…) are, like people, long-lived species that sustain …thanks to complex societies, in which knowledge, social interaction and communication are at a premium. It seems reasonable to say their minds—like human ones—may well have evolved in response to their creativity and social induction to environment necessities (see "The lonely orca"). And this may be what allows minds on the two sides of the inter-species gulf to cross footbridges and links between things and their processing phenomena.

- **The whole of perception is a major s The cerebrum is the most highly developed part of the human brain and is responsible for thinking, perceiving, producing and understanding language. Most information processing occurs in the cerebral cortex. The cerebral cortex is divided into four lobes that each have a specific fu The cerebrum is the most highly developed part of the human brain and is responsible for thinking, perceiving, producing and understanding language. Most information processing occurs in the cerebral cortex. The cerebral cortex is divided into four lobes that each have a specific function. These lobes include the frontal lobes, parietal lobes, temporal lobes, and occipital lobes. nction. These lobes include the frontal lobes, parietal lobes, temporal lobes, and occipital lobes. ymbiotic driver with a general dynamics systemicity**

What's happening around is either unconscious and not inferred or is consciously perceived by the conjunction of information coming from the five different senses of the brain-perception outfits: eyes, nose, mouth, ears and "umami" as taste savors[8].

Perception can be defined as any living creature recognition and interpretation of sensory and stimuli information coming from a symbiotic conjunction of a momentarily need and sense of an endo-exogenous event.

Perception is also including the fact how one responds to information (symbiosis feedback) and specifies the process how sensory information is integrated by the brain (formally the neuron different networks conjecturally concerned) from our environment and interactively used interpreting the characteristic of the environment event and stimuli effect of a close or farther neighboring event. Perception allows the livings to infer a sensory information in and make it be developed into something different and/or meaningfully adequate with an event interaction towards a momentary conjectural situation. Perception is therefore a set of mega dynamics which systemicity convergent results induce to a move, a flux or a direct intuitive or conscious behavior that an individual or a within a social group (a population, a group, a family or an

[8] - **Umami:** The sensation of umami is due to the detection of the carboxylate anion of glutamate in specialized receptor cells present on the human and other animal tongues (52 peptides).

individual) is naturally induced to perceive and/or is mentally be centered towards a peculiar event that is happening within a sudden timely context.

For example, one must have a look over the perception at discovering the origin and evolution of words and the invention of writing. Each letter of an alphabet is in itself a singular sign issued from a information or several stimuli translating the feeling and the momentarily thinking of some individual about the perception of one event or that of a satisfaction need. When an individual perceives such words, looking or sounding like the symbiosis of singular units that are made up of smaller parts called "signs or letters", understanding in reference with some particular event, to its own interpretation of the perceived fact. Through such organization of mental signs or letters into meaning or word drives, anyone capable to make something understandable, think of it, and/or express feelings, thoughts and emotions. In other words, perceiving an entire word, which has a specific meaning learned or understood by an individual as symbiotically driven from the different brain memories areas both from interpretation, translation and/or knowledge (can also be usually found in a dictionary) is forging the level of the individual as to access to a fitness level for a sustainability level surviving with the neighbors .

- **The mitochondria world perception is primordial with survival[9]**

Perception is also necessary for all object, species, individuals and things to survive in universal environments. It is first a matter of a major outfit structuring the energetical move of a cell through one of its organ name the "mitochondria". Mitochondria are often referred to as the powerplant of the cell. They are small structures within a cell that are made up of two membranes and a matrix. The membrane is where the chemical reactions occur and the matrix is where the fluid is held. Mitochondria are a part of eukaryotic cells "organs".

The main job of mitochondria is to perform cellular respiration. This means it takes in nutrients from the cell, breaks it down, and turns it into energy. This energy is then in turn used by the cell to carry out various functions. Each cell contains a different number of mitochondria. The number present is dependent upon how much energy the cell requires. The more energy a cell needs the more mitochondria that will be present. Cells have the ability to produce more mitochondria as needed. They also can combine mitochondria to make larger ones.

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For example, illustrating the first interfaces ruling survival, parents, congtonted with the necessity to manage their feeding their juveniles with food, nutriments and water. It is natural they are tasting the food in order to make sure that taste, temperature and safety is right. This involves using sensory information (touch and taste) to make sure that food, nutriments and water are not dangerous and fit as adequate with the survival sustainability of their little ones.

[9] - **Mitochondria:** The DNA that is contained, expressed, and replicated within mitochondria and that is generally subject to maternal inheritance.

Before when we, humans, cross a busy space or street, we rely on our hearing, sight and physiological status how to making sure a predator or an obstacle is not coming by. The role of vigilance is the universal physical action or mental state how keeping a careful watch for possible dangers or difficulties…), a motivation inducing to being careful while permanently confronted with the perspective, or apparition of a particular endogenous and or exogenous event that would particularly expose the integrity of one's self.

MEMORIES ARE THE PERCEPTION BACKGROUND DRIVERS OF INFORMATION PROCESSING ACUITY

Perception of endogenous and exogenous information as necessary with the survival of any object and thing, requires sets of a large amount of psycho-physiological and/or physicochemical functions able to sustain any object, thing and organism to survive while permanently being confronted with environmental events and ecosystem changes, therefore instantly adapting.

Memory is a vital function storing experience signals whatever the thing is and is related to the survival systems of cosmic and biological individualities; it is the retention of information over time that sustains one in a way that lasts, oscillate or changes indefinitely. For all time, it is having an influence over the specificity of a very close or a long term future action. If one could not remember past events, it could not learn or develop its proper local language, relationships style, nor have a personal identity (ref.: Eysenck, 2012).

Memory is the faculty of the neuronal networks areas of the brain by which information is encoded, stored, and retrieved, furthermore is being vital to experiencing what's happening . It is related to the limbic systems (refers with the neighborhood of the thalamus, hypothalamus[10] and amygdala[11] functions permanently working at the retention of information over time for the purpose of influencing future action in the perspective at surviving. If organisms could not remember past events, be intuitive, they would not learn or develop any language, relationships, nor personal identity (Eysenck, 2012), that is essential for structuring their individuality, behaviors and above all, the fitness of their endogenous metabolism balance. The neuronal sensory processor allows information from the outside world to be sensed in form of chemical and physical stimuli and attended to with various levels of focus and intent participating in a sustainable balance of the metabolism.

Often memory is understood as an informational processing system with explicit and implicit functions that are issued from sensory processors, short-term (or working) memory, and long-term memory (Baddely, 2007. In fact, they are related to the neuronal sensory processing networks that allow information from the outside world to be sensed in form of chemical and physical stimuli as attended to reach various levels of focus and intent. Working memory serves as an encoding and retrieval processor. Information, also in the form of stimuli, is encoded in accordance with explicit or implicit functions supported by the working memory processors. The working memory retrieves such information from previously stored environmental signals both endogenous and exogenous ones. Finally, the function of long-term memory is to store direct data through a large and unambiguously explicit and various models.

[10] - **Hypothalamus:** is a portion of the brain that contains a number of small nuclei with a variety of functions. One of the most important functions of the hypothalamus is to link the nervous system to the endocrine system via the pituitary gland

[11] - **Amygdala:** is one of two almond-shaped groups of nuclei located deep and medially within the temporal lobes of the brain in complex vertebrates, including humans. Shown in research to perform a primary role in the processing of memory, decision-making and emotional responses, the amygdalae are considered part of the limbic system where are the hypothalamus and thalamus systems.

Explicit and implicit functions of memory areas are known as declarative and non-declarative systems (Squire, 2009). These systems involve the purposeful intention of memory retrieval and term storage of information, or lack thereof:

Declarative, or explicit, memories are the conscious storage and recollection of information in form of signals, symptoms, sounds… Under declarative memory resides:

- **Semantic memory: it refers to memory that is encoded with specific meaning (Eysenck, 2012),**
- **Episodic memory refers to information that is encoded along a spatial and temporal plane (Schacter et al. 2010).**
- **Declarative memory is usually the primary for thoughts referencing to the symbiosis of memorial processes (Eysenck, 2012). In other words, it is "a type of long-term memory that involves conscious recollection of particular facts and events".**
- **Non-declarative, or implicit, memory is the unconscious storage and recollection of information (Foerde & Poldrack, 2009). An example of a non-declarative process would be the unconscious learning or retrieval of information by way of procedural memory, or a priming phenomenon (Eysenck, 2012). Priming as being the process of subliminally arousing specific responses from memory and showing that not all memories are consciously activated. Whereas procedural memory is the slow and gradual learning of skills that often occurs without conscious attention to learning.**

The symbiosis and synergetic of universal dynamics sets (physicochemical and biological), being the retroactive addition of positive and negative results, is permanently changing the metabolic status of objects, individuals, things and sets of organisms at managing the metabolism, well saving some pathways towards a certain sustainability.

Declarative and non-declarative systems are systems that involve the purposeful intention of memory retrieval and storage, or lack thereof:

- ***Declarative, or explicit, memory* is the conscious storage and recollection of data (Graf & Schacter, 1985). Under declarative memory resides semantic and episodic memory. *Semantic memory* refers to memory that is encoded with the specific meaning of things while *episodic memory* refers to information that are encoded along a spatial and temporal experience. Finally, declarative memory is usually the primary thinking process of when referencing other memories.**
- ***Non-declarative, or implicit, memory* is the unconscious storage and recollection of information (Foerde & Poldrack, 2009). Timing is the process of the subliminally of things as arousing specific responses from memory ending with the symbiosis of systemicity results .**

Interference can impede the movement or progress of memorization and retrieval[12]. There are retroactive interference while learning new information that makes it harder to recall some old information and proactive[13] interference, where prior learning disrupts the recall of new information. Although interference can lead to some forgetting, it is important to keep in mind that there are situations when old information can facilitate the learning of new information. Knowing Latin, for instance, can help an individual learn a related language such as French – a phenomenon which is known as a positive transfer.

[12] - **Retrieval:** the act or process of getting something back

[13] - **Proactive:** having or showing awareness of and preparation for the future

Memory is vital to experiences and is related to the limbic systems, it is the retention of information over time for the purpose of influencing future action. If we could not remember past events, we could not learn or develop language, relationships, nor have a personal identity (ref.: Eysenck, 2012).

The symbiosis and synergetic of various sets of universal dynamics (physicochemical and biological), being a retroactive addition of positive and negative results, is permanently changing the metabolic status of objects, individuals, things and sets of organisms at managing then saving their pathways towards a certain sustainability.

A memory is not a perfect processor, and is affected by many outrighted and/or troublesome factors. The manner information is encoded, stored, and retrieved may all be changing and furthermore get corrupted. Together, the amount of attention given at new stimuli can diminish the necessary amount of information becoming at useful often perverse.

Finally, the retrieval of information from long-term memory can be disrupted because of information decay within long-term memory (Eysenck, 2012). Normally functioning but parallelly confronted with decay over time, and with brain neuronal sets damages, may together affect the accuracy and capacity of the output and input information retrieved within memories to supposedly being kept up to be proficient.

THINKING FROM PERCEPTION

Perception is including memory, by which an organism becomes aware of and interprets external stimuli. It is the meaning we make of different information that comes in, based on how we are looking at it. Different species perceive reality in different ways based on their interpretations of what they intuitively or intentionally have decided to do and based on needs and goals.

Thought evolves from being based on perceptions and actions at the sensorimotor stage in the first time of life to internal representations in later living. Subsequently, representations are gradually organized into natural knowledge which first operate on the concrete properties of reality, then in the stage of concrete operations (strategy, tactic). They afterwards operate on abstract principles that organize concrete properties, in the stage of formal operations (in ref.: the intelligent abilities of a crow thinking of a way to solve how getting some food).

Various aspects of thinking, include the psychology of reasoning, and how people make decisions and choices, solve problems, as well as engage in creative discovery and imaginative thought. Errors in such domain might be hurtful, wounding or even at an end: lethal.

VISUAL PERCEPTION AT SURVIVING

The predator-preys cycle at the origin of individual life survival which first micro-organisms relied on is inherent to their naturally seeking and producing for energetical resources participating to a biophysical exchange need for an intake-output of the energy that brings up a positive result keeping up some individual “existence” to sustain (the act of keeping on going).

Survival is a matter of perception: the predator-preys cycle effect

The major dynamic that drives most of living creatures mobility and survival behaviors is their having photoreceptors and a photosynthesis function that are energy captors precursors of photons which induced eyes as a visual mean searching survival resources, seeing and

perceiving who is and what is there, (predator or prey, male or female, eatable or possibly neighboring with things or not, since felt dangerous …), who is behaving and what is happening around their neighborhood and milieu[14] within which a set of surrounding conditions is present and fits in ad-equation with their survival requirements of the moment. However, accordingly linked with their genome structure and their adaptation with specific milieu conditions (darkness, coldness, warmth…) some creatures biologically and physiochemically develop other adequate substitutes utilizing different means capable to send the proper signals to their understanding of what's happening (earing or feeling sounds and vibrations…). Outfits are either in form of moustache, vibrissae, sensing cells, odor or physical presence (neighboring) replacing eyes or supplementing the vision which dynamics systemicity results are requiring the proper answer for sustaining a sufficient fitness and survival aptitudes.

The brain combines acoustic signals and vision stimuli from both its hemisphere into a single spatial perception as a necessity detecting where to situate the event origin (sound + image) within an area of space and evaluate its meaning. The exact origin of a noise signal is first a matter how to detect from where an eventual danger would come from (the predator-prey vision-strategy cycle, the alert of a danger …). The "binaural fusion" is describing how the brain compares information (sound waves) received from ears of both sides, then it translates the wave difference into a unified perception of a single sound spotted from a specific region of space. Some sort of mapping process which is a universal rule as expressing the disparities and variances in timing, in intensity, and in the nature of the drive after converging only later to forming the binaural fusion in the auditory areas (brain left and right) where the magnocellular neurons convey timing data and the angular neurons by conveying the data intensity, tuning them to specific frequencies…. and at the end specify the sound identity and origin.

Survival is a matter of what to perceive and the predator-preys cycle effect

Proprioceptors are sensors that provide information about orientation of the body relative to the body's orientation with respect to gravity, movement of the body relative to the external medium and movements and forces in localized regions of the body. Muscle spindles are primarily responsible for position and movement sense, Golgi tendon organs provide the sense of force and the vestibular system provides the sense of balance. Feedback from proprioceptors feedback is essential for the accurate execution of movement execution. For voluntary limb movements in primates, proprioceptive feedback can regulate the generation of motor command by correcting errors using negative feedback loops; providing timing cues about an ongoing movement to initiate commands required at a later time within a movement sequence; and by providing signals used in the planning of movements by providing information about starting limb position to set parameters of feedforward commands. Proprioceptive feedback is also required to modify motor commands slowly in response to alterations in the biomechanical properties of the limbs, concentrating on vision of a target to which the individual creature is reaching. The premotor cortex of creatures is a site of convergence (dynamics systemicity of visual, tactile, and proprioceptive information (signs and stimuli). It is also involved in the control of movement of the mouth, head, arms and limbs,

[14] - Milieu:: is considered to be the inside ecosystem of an individual body. Stem/progenitor cells have emerged as a potentially new preventative or therapeutic option. They are generally defined by the ability to undergo self-renewal and give rise to more differentiated cells. They are important in the early development of embryonic structures and organ differentiation *in utero*. Postnatally, they function in continued growth, maintenance, and regeneration.

Otherwise, perception may be the source of errors, for example mixing wrong senses, provoking fright confronted with a presupposed danger or misinterpreting another thing's feature or behavior, then inducing to inappropriate reactions.

A visual stimulus may be an ambiguous interpretation of reality according to what neurons activity corresponds or not to both an unconscious genetic translation and/or a memorized conscious experience. Scientists describe the visual perception from a large interpretation of optical signals transiting through the eye system of a creature.

The majority of living creatures depend on the sun for energy from both photosynthesis and/or the formation of environmental images from signals. They interact with the natural reality through the same two specific narrow light wavelengths. Singled-celled eukaryotes, using calcium rather than sodium action potentials[15], in the neuron networks, occurring when the membrane potential of a neuron specific axon[16] location rapidly rises and falls. It occurs in several types of animal cells, called excitable cells, which include neurons, muscle cells, endocrine cells, and in some plant cells. It play a central role in cell-to-cell communication by providing for - or, with regard to saltatory conduction, assisting - the propagation of signals along the neuron's axon towards synaptic boutons situated at the ends of an axon (a synapse is the physiological molecular gap in between two axons). These signals can then connect with other neurons at synapses, or to motor cells or glands. In other types of cells, their main function is to activate intracellular processes.

- **The case of synesthesia**

Ed. Hubbard et al. described how synesthesia had yielded insights into how the brain processes complex sensory treats inputs. The constant stream and fluxes of sense data provide helping the brain to interpret events from environmental nature and moves, which effects, permanently provide vital tools and livable reflexes enabling keeping up the thrive of survival (adaptation and evolution). John M. Kennedy describes the realism of the connection between vision and touch.

J.-J. Blanc, from 2017, through a new "transdisciplinary reading grid" ,(the Bioethism and Systemicity, a general theory) would rather describe the translation of environmental signals or a glance at something or the resentment from a move or flux, as the result of a whole world of converging sense data processes which dynamics systemicity within a specific ecosystem, a specific conditions and a time lag (symbiosis…) does drive an instant of an entity to adapt, evolve as genetically forming part of its structure, a behavior, a reflex as well as the memorizing of an observed stimuli or event.

Neural activity in animals shows that visual information leaving the eyes ascends through successive stages of a neural data-processing system. Images from the retina travel first to the lateral genicular nuclei (LGN) which treats either of one eye output so as to respond to any change of brightness or color spotted within the respective field of the milieu. Then on, visual information moves to the primary visual cortex (V1 at back of the head) where is treated the sensitivity to specific orientation of a contour, or the direction of the motion of a stimulus and along towards more than a dozen other distinct cortical regions (extrastriata visual areas).

[15] - **Axon :** The usually long process of a nerve fiber that generally conducts impulses away from the body of the nerve cell.

Among which are V2 and V4 (inferior temporal cortex or ITC where the great majority of neurons are responding in a way that is linked to perception) as appropriate in perceiving form and recognizing objects.

> *Other signals passing through V2 and V3, V5/MT (medial temporal cortex) treat velocity (speed and directional selectivity) before reaching the parietal lobe[17] (an area where some neuron sets do respond when an animal pays attention to a stimulus or intends to move towards it. The global move for survival is in a thrift of a millisecond as answering to a instant need often followed by another survival motivation.*
>
> *Existing or happening things visualized without one's realizing what's happening, is treated as an unconscious reflex that is a major survival instinct behavior, a major survival reaction (a dynamics systemicity move) and which is subsequent at visualizing what's happening around.*

Another aspect of vision meaning that it is also the feeling about an instantaneous event as just the representation focusing on i5s form, but that of a short time lag translation of what is its happening to be sited inside some sort of a whole landscape composed of ecosystems within which it occurs. Actors and other individual implicated in the show, its whole environmental geoclimatic milieu, the meteorological condition of the instant lag time and the driving reflexes issued from and at it (predators, neighboring's…natural events, social moves…) represent thousands of cases inducing the event to be sorted out as appropriate.

The vision phenomenon is of a global physicochemical and biological dynamics systemicity resulting far away from the simple theoretical definition of synesthesia as described by Ed. Hubbard et al. When he considers, like other scientists of the century, that synesthesia is only concerned with the perception of "numbers and colors" simply processed in the brain fusiform gyrus area, saying that the number-color synesthesia occurs from the constitutive brain areas that are cross-wiring between V4 (visual cortex 4) and the number appearance area or between the higher color area (or said neighboring one) and the "number-color concept" is a by-side phenomenon describing some quite of a rare vision aptitude.

The vision and/or resentment of an event is not first the result of a theoretical theory as funded on the number-color differentiation of things since the brain mechanisms and networks, or physicochemical and biological matter relationships is of a much wider array of perceptions and from it the emergence of sensations. They yield up feedback from the world of a permanent symbiotic move of the different structures and the functions of any entity of which architecture and for the livings, the structure of their brain has an individual specificity of cross wiring.

Neural cross wiring within living creatures' brain not being solely genetic but individually adapted with the milieu from their specific type of perception, is resulting from the symbiosis of dynamics systemicity results that manage connections between the different neural areas and sensory processing:

- **The temporal globe is a learning center which understands stimuli and signals such as color ones, but which capacity depends upon the structure of eyes,**
- **The insula region (taste cortex) is much concerned at touch between hands,**
- **The taste cortex inducing touch is also suggesting flavors,**
- **The taste cortex is also establishing cross wired fluxes with hearing.**

Dedicated regions of the brain are specialized for given functions. Increased cross-talk between regions specialized for different functions may account for the many types of synesthesia. For

[17] - **Parietal lobe:** Either of the paired lobes of the brain at the top of the head, including areas concerned with the reception and correlation of sensory information.

example, the additive experience of seeing color when looking at “graphemes”[18] might be due to cross-activation of the grapheme-recognition area and the color area called V4. This is supported by the fact that grapheme-color synesthesia is able to identify the color of a grapheme in their peripheral vision even when they cannot consciously identify the shape of the grapheme.

In linguistics, a **grapheme** is the smallest unit of a writing system of any given language. An individual grapheme carry meaning by itself, and may or not be corresponding to a single phoneme of the spoken language (the speech sound is made of onomatopoeia[19] translated into a single phoneme, itself designed as a grapheme. Graphemes include alphabetic letters, typographic ligatures, Chinese characters, numerical digits, punctuation marks, and other individual symbols. It can also be designed as a graphical sign that independently represents a portion of linguistic material.

The concept of graphemes is an abstract similar to the notion of characters in computing . By comparison, a specific shape that represents any particular “grapheme” in a specific typeface that is a set of fonts and is called a glyph. For example, the grapheme corresponding to the abstract concept of "the Arabic numeral" has two distinct glyphs (allographs) in the fonts Times New Roman and Helvetica.

- **Visual management of environmental stimuli**

In another domain, the notion of “mènes” was invented as representing the mental status of a mental position discerning a specific event. For example: the neural activity within survival necessities and consciousness induces to many neuron systems responding to instant unknown stimuli, the living creatures, being not conscious of them make it factual as to note responses in a manner their reliability to their needs is a matter of reflects perception. Behavioral reflects are not so many to get perceived, since distributed over the entire visual pathway. However, the change in the response is instinctive, usually rightful but not always fit with the whole of the environmental circumstances.

- **The brain generates awareness**

According to the universal and natural dynamics systemicity of symbiotic results, it is quite accepted the activity of neurons throughout the different areas of the brain is determined by their connections with other neighboring neurons areas and is the result of “top-down”, feedback connections emanating from around the temporal or parietal lobes. Visual information flows from higher levels down to lower levels as well as in opposite directions within the brain networks, versatile moves that illustrate the different steps and stages of neurons networks that are symbiotically treating and exchange information and is therefore the translation of a set of information into a significative image signing a need and/or a reaction. It shows that such a visual perception flash induce to symbiotic moves, behavioral reflexes and/or the memorization of a perceived event as not to immediately treat but learn as to take into a flash memory consideration. It induces to show that learning is an much important phase of perception items that define the level of what information is to be an immediate reflex to be treated or an information that is susceptible to be available and being fit tools as to participate with a survival need and therefore have to be memorized as some sort of a survival learning information data center (a kit and more as a some sort of library) to get an available information to enforce a behavior to set forth using at surviving.

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[18] - **Grapheme**: serve to distinguish one word from another and usually correspond to or represent phonemes, e.g. the f in fun, the ph in phantom, and the gh in laugh

[19] - **Onomatopoeia** : the formation of words whose sound is imitative of the sound of the noise or action as shown, designated, described or illustrated,

HEARING, LISTENING AND THE ACOUSTIC SIGNALS AND STIMULI

Hearing music is a brain-body dynamic systemicity

Music fills the environments and ecosystems with silence, living creatures noises, cries, and the sounds of nature and things, the sounds or noises of organisms, noises, cries and songs of birds, invertebrates and animals. All are producing wave sounds which background is propitious to most of them teaching, learning, alerting.., from their being hearing and listening ways of life (matter moves, survival behaviors, reproduction and culture expressions). Each species has its own resentment about a level of musical tones according to the symbiosis of sounds and frequency origin within ecosystems and its species components. Music have originated with animals, allowing our quite distant ancestors to communicate and build societies (RNA/DNA genes and mimicry) very much early as bacteria and viruses formed organisms.

Prior to 30'000 years ago, humanity, in its deep roots, discovered it could make music like other animals (birds, mammals, invertebrates…) either from the voice or other percussive bing and bangs things or flutes first made from a hollow branch or a bone. One understand then, how some of those dynamics symbiosis which systemicity leads to retroactive results, step by step induced to produce the actual art of music and the evolution of a great variety of making sounds from well fit instruments making music of so much different styles. It had and still nourish those pleasures that are perceived lighting in a person's brain, societies which innate dispositions that are large wringing emotions.

Music is not just a little more than a useless byproduct of our intellectual advancement but one of the dynamics that Nicholas Conard, 2017, and others et al., however, described as an art being very much important in helping early humans to forge their survival pleasures and a sense of group identities and mutual trusts that enabled them to become creatively so successful feeling their societal necessities. In other domains, other living creatures (since the apparition of a fetus) are similarly forging the diverse powers of their perceiving sounds as their early means to communicate with the neighboring of life (mother, family, groups, milieu). They resented the first sounds of their becoming alive, like environmental stimuli, understanding some of their survival necessities and the perception of the effect of grooming from the cohesive promotion of social groups that are capable to be bringing sources of behavior about.

Appreciating sounds (from natural, singing and noisy species with their musicality) is an innate aptitude issued from the synergetic and positive feedback result which dynamics express some of timely resentment linked with survival necessities suddenly happening or surged from an innate disposition (the basics of communication: reproduction, grooming and maternal care, social nearby events effects and the language linked with).

Many regions of the brain respond to the perceptual and emotional aspects of music and other areas of the brain that alter themselves reacting more strongly to those musical sounds that become meaningful to any individual survival and culture. Many are also involved in other kinds of cognition. The active areas vary with the individual life's experience both with sounds and musical inputs and the hearing of what's happening within the noisy nearby. A.D. Patel, San Diego, suggests that a region in the frontal lobe enables proper construction of the syntax of both language and music, whereas other areas of the brain handle related aspects of language and music processing. Like other sensory systems:

- **The one for hearing is arranged hierarchically , consisting of a string of neural processing stations from the ear to the highest level named the auditory cortex,**
- **The processing of sounds, such as musical tones (frequencies and loudness), begins with the inner ear (cochlea), which complex sounds produced by a natural sound,**

(the singing bird or the music of an instrument like a flute), sorts into their elementary frequency constituents, depend on the location of

- **The cochlea then transmits this information along separately tuned fibers of the auditory nerve as trains of neural discharges,**
- **Different cells in the auditory cortex of the brain respond best to certain specific frequencies; some neighboring cells have overlapping tuning curves so that there are no gaps (notion of a "frequency map" where each cell respond optimally to a particular pitch or frequency). Such cell responses depend on the location of a given tone within a melody; cells may fire more vigorously when that tone is preceded by other tones rather than it is the first.**

The problem is that different tasks and even different rhythmic stimuli can demand various processing capacities, depending on the specificity of species ways as to survive. In other words, discerning different rhythms according with the variety of short or longer sounds influences the modulation of a behavior and the experiences and training acquired by the listener (predator-preys balance). The whole world of what perception induce to sense systems and stimuli processing, develops the brain's ability to modulate its wiring in supporting the specificities of its survival needs (innate and learned) which induce to an ascendance learning and further up, the development of its cultural needs and of an absolute necessity social requirements according with both the milieu and the sense of their specific evolution (technological as well as intellectual one) .

In reference, one may understand the time which elapsed in between the beginning of communications underwater (3,8 billon years ago) and the actual level of thinking and expression of known species. According with the level of the cortex development of a species , the volume of neuron areas and increase of its neuronal power is linked to levels of "communication" inaction and of its training actions , including the sense acquired at perceiving musical tones since being some sort of a survival necessity hearing sounds. Playing an instrument requires both hands to develop a proper coordination between the motor regions of both hemispheres. At the same time, musical sounds, in response, evoke strong emotional and feeling reactions such as joy, thrills, laughter, tears…, some elements inducing to happiness, sadness, fear and tensions.

Such complex processing of sounds well illustrates the complexity of the dynamics systemicity synergy and symbiosis issued from different sounds and emotion phenomena that show the interdependence of functions and their whole interactions within each individual managing some of its ways how to survive. The whole fitness sustaining the survival of an individual creature, at various rates and levels of the "mille-feuille physiochemical and biological site" is issued from the result of a total interdependence of natural and permanent phenomena which, from synergetic and symbiosis, piling up bottom-up and down to bottom, support a suitable balance at an instant time, balancing the individual metabolism throughout the whole of their body.

Environmental conditions, its context[20] particularly those linking vision, feeling and hearing, since weighing much upon the endogen and exogenous reactivity of species individuals at fitting with their survival.

20 - **Context: situation**, environment, milieu, setting, background, backdrop, scene **climate**, atmosphere, ambience, mood, feel

l

- **Music activates the same reward systems than that which are stimulated by other survival requirements**

Caro L. Krumhandsl, 1997, et al. recorded different physiological measures from groups of people during the presentation of musical pieces expressing different emotions (happiness, sadness, fear or tensions…) and found that each type of music elicited a different but consistent pattern of physiological change across each subject's brain areas.

It is now known that the temporal lobe is needed to understand melody but not to produce an emotional reaction, which is both subcortical and involves some dispositions of the orbitofrontal lobe area of the right hemisphere (part of the reward systems that are stimulated by food, nutriments and water, sex and addictive drugs). And also part of an area below the corpus callosum. In contrast, dissonant harmonies activate the right para-hippocampal gyrus. According to each individual, at a momentary perception time lag, at least two systems, each dealing with a different type of emotion, are at work when the brain processes emotions, such as music or diverse types of sounds.

On the whole, it is clear that many brain areas participate in specific aspects of sounds processing both supporting dynamics stimuli perception or feeling emotional reactions (dynamics systemicity). Since musicians, or other cultural and intellectual individuals, writers or speakers are hyper-specialized, they induce to the hyper-development of some of their brain structure. Effectively, learning is tuning the brain networks, increasing both the individual cell responses and the number of them while reacting strongly to diverse sounds. Reactions that become important to a momentary survival interaction and as well as other longer necessities confronted with the fact interactive results sustain the degree of sound values capable to support an individual time lag moment at behavioring going on surviving.

Because the theory of dynamics systemicity exhibits complex patterns of symbiotic behaviors like multiple stable survival states (among them those maintained by top-down and down-up feedback), such different mechanisms correspond to particular states of visual consciousness (animal's conscious perception which neurons are under the control of some other areas of the brain controlling what determines the conscious experience.

Both unconscious and conscious survival motivations and actions (behaviors) shape up sets of psycho-biological dynamics (systemicity) that drive the whole of the body being aware as much keeping up its fitness and adaptability as coping up with the development and evolution of its functions and power so to being able to keep up with a sustainable quality of life where all senses are participate in. Visual awareness is also concerned with from the systemicity results of other cognitive processes such as attention and/or working memory. The brain represent a system whose processors, moved from the symbiosis of diverse dynamics systemicity results, create states of consciousness in response not only to sensory inputs but also to internal signals or stimuli representing some expectations based on past experiences. A matter of moves and fluxes that are permanently processing interactions throughout the whole set of networks that support survival to sustain the whole dynamic balance of metabolism.

The vision dynamic, or any other tool sustaining a lack in a clear eye vision (moustache, fibrils, taste, hearing and smell) has proven its major efficiency treating with what happens around in the milieu and the environment, particularly bringing to species and moreover to individuals among them, the development and originality of a "savoir faire" .

Mammals can recognize thousands of odors, some of which are bringing powerful and prompt responses: most of them on a primal sense level are particularly relied on predator actions, energy resources searching (food, nutriments and water, sunlight…), and mates. For many organisms (family, groups, neighbors, predators or preys), odors are their efficient means of

communicating with others and their interpretation of environments (neighbors and preys in close ecosystem, local and far neighboring). It is an innate sense responding to smell as being essential to their organism's survival, mostly a non-conscious perception of odors (hungriness and an extraordinary blood odor ability to discriminating scents, the presence of another species individual…).

THE TOUCH SYSTEM FEEDBACK

The pressure contact of skins or any body structure induces to many different brain effects on a body behavior. At a momentary time lag, the pressure, in terms of the production of any reflex moves (biological as well as chimicophysiological ones) is a pathway towards the touch system feedback, such as bringing one's paw hand or another part of one's body into contact with.

Detection of touch stimuli begins with mechanical deformation of several types of specialized touch receptors, distributed unevenly over the body surface. Nerve fiber endings in the skin may be free, "naked" endings (for light touch) or more commonly are associated with other, cooperating cells. Thus nerve endings that wrap around hair follicles are activated by hair movement; other nerve endings adhere closely to specialized accessory cells or have tiny cellular capsules. The latter include:

- Pacinian corpuscles for vibration,
- Meissner corpuscles (abundant in sensitive, hairless skin of the fingertips) for light touch,
- Ruffini corpuscles and Merkel disks respond to pressure or to stretch of the skin with signals that continue as long as a stimulus is applied.

When any of these touch-sensitive nerve endings are mechanically deformed, electrical signals (action potentials) are transmitted along the **axons** of sensory nerve cells. These signals pass rapidly to the spinal cord and brainstem to activate a second set of neurons. As these secondary touch cells relay information up the brainstem, their axons cross the body's midline, so that the touch information they carry activates neurons in the thalamus on the side opposite the stimulation. Thalamic neurons transmit the signal to the primary sensory cortex in the brain's postcentral gyrus, where touch is actually experienced.

All of the touch information transmitted from the various receptor types in a given body area is combined in the cerebral cortex . It provides sophisticated analysis of the total pattern of nerve signals so that one can instantly (and consciously) judge the texture, force, location, and movement of the skin stimulus with great precision.

- **Biology and touch systemicity**

Touch dynamic sensitivity varies in different body regions because of differential density of distribution of the specific nerve endings at supporting the different survival proprieties. Areas such as the fingertips and lips (glabrous skin) are richly endowed with nerve endings and are very sensitive. Hairy skin has fewer endings and different kinds, and so produces a different sensory experience; skin of the trunk and back, with a low density of touch receptors, is less sensitive to touch than skin elsewhere. Touch receptors branch out at their ends, and a single neuron may receive input from a region of the skin several centimeters in diameter, called its receptor field. Living creatures have genes which are essentially unchangeable, and that environmental inputs to the organism only regulate whether or not these genes are expressed to their fullest. Electrical stimuli induce to the production of different biological

dynamics such as the hormones[21]. Touch is the first sense acquired within the fetal birth and is a major function surviving, a secret weapon in many a successful relationship. In other terms, to acquire and regain fluency in a first language, and other fitness's as to manage survival necessities.

- **Social touch dynamics and biology**

Social touch dynamics is the first sense acquired from fetal birth and is the secret weapon in many of any successful social relationship. Here's how to regain fluency in your first language. The practice of touching is of a high dynamic quality and an ability to send and receive emotional signals solely by doing so. Participants communicate at eight distinct level of emotions: "anger, fear, disgust, love, gratitude, sympathy, happiness, and sadness" that are variously expressed according to the type of species and their degree of sociality and also where the speed of dynamicity level depends upon the milieu and of its context .

Widely, plankton, sea and earth animals and plants have a genetic dedicated specificity with touch, firstly necessary as accomplishing a general type of reproduction which requires the exercise of specific sexual cells' fusion, a rather universal biological act. A particular and sometimes momentarily situation of the urge in life, requires the confrontation of two or several individuals (social competition, groups) that from such procedure sustain their survival neighboring ends. Touch and vision are then closely linked. A specific psychological relaxed as well as pleasant status, is often the source of oxytocin production, illustrating the relationship between the mechanical act of touching and the social and/or friendly relationship with the milieu at such time emerging. The main effect of such convergence relies on the indirect relationship between the dynamic systemicity results the oxytocin induce to near the proximity with a pain site emergence. Such hormone/neurotransmitter is intimately involved in the modulation of multiple physiological and psychological functions as for example, into the blood pressure and the effect over the cardiac rhythm lowering as well as corresponding with the type of the individual.

The number of cell's receptors of females, much important than those of males changes the biological level of a touch/massage effect : however, it must be understood that the brain activation is not solely the fact of such neurotransmitter to act, but, in the convergence of dynamics systemicity results, several other areas of the brain might be and/or are activated. Those neurotransmitters activating other areas produce different neurotransmitters and hormones such as oxytocin, endorphin and opioids as well as some painkillers, a terrain where oxytocin is however central to all secretions of such other hormones and neurotransmitters.

The skin, with 5 million of sensorial cells, with or without hairs but also with scales or membranes structures correspond with their large body surface of sensations feeling and sending the most important signals participating with survival. A simple organism reflex or any organism behaviors protection is genetically a major reflex as have kindles prolonging the species survival by reproducing itself. The most important effect of a contact or a touch as close as in the relationship with a milieu, the close neighboring with individuals or the effect of a faraway phenomenon (meteorological: like rain, heat… or geophysical volcano or geyser, earthquake…) induce to the sense an individual will adapt and evolve its possible survival behavior. It is also a ….

A kiss is not a sole emotional human impulse since it is observed within many living species (mammals, birds). Socially, it shows the role of social conciliation, of caring and responsive

[21] - **Hormones** : A regulatory substance produced in an organism and transported in tissue fluids such as blood or sap to stimulate specific cells or tissues into action

Sap is the fluid, chiefly water with dissolved sugars and mineral salts, that circulates in the vascular system of a plant, in other ways its blood.

attention and of feeding duty (survival of a newborn where the tongue has an ancestral role such as sucking). The biological dynamic roles sustaining these different moves and behaviors induce to propagating specific signals which symbiosis results from the effect of the systemicity result of their dynamics, send structured processes with a possible issue or a self-interpretation that does not fit with the actual context. Would hierarchy or mentality have a role to play? Certainly!

Sensitive receptors of the skin, particularly the "Pacini and Meissmer corpuscles" are sensitive at quick pressures contrarily with both Meissmer disks and Ruffiny corpuscles that have longer stimulations while reacting.

Lamellar corpuscles, or Pacinian corpuscles, are one of the four major types of mechanoreceptor cell in glabrous mammalian skin.

- **They are nerve endings in the skin responsible for sensitivity to vibration and pressure.**
- **They respond only to sudden disturbances and are especially sensitive to vibration.**
- **The vibrational role may be used to detect surface texture, e.g., rough vs. smooth.**
- **Lamellar corpuscles are also found in the pancreas, where they detect vibration and possibly very low frequency sounds.**
- **Lamellar corpuscles act as very rapidly adapting mechanoreceptors. Groups of corpuscles respond to pressure changes, e.g. on grasping or releasing an object.**

However, all of these sensitive receptors send messages and signals throughout up to the thalamus, then to the somatosensory cortex. On one way, it is diffusing touches (temperature, pain,…) and on the other, it drains the touches of specific and precise outfits such as vibrations, fine discrimination and feeling of strikes...

Each cortex area has an exhibiting linkage with a precise flux of brain-body-brain processes (along brain neurons network areas) such as considering paws, fingers, the mouth and tongue over righting the other body functions. In other words, the "mouth-to-mouth" is an ancestral behavior for feeding juveniles, it then reproduces survival urges that have to induce to the convergence of genetic adaptation. Naturally structuring the proteins that are biologically generating such acts and gestures at giving food, nutriments and water to off-springs (a natural systemicity result) is both illustrating the dependency of juveniles with the mother, and that of them at acquiring the proper amount of energy for survival. The function is also much social in terms of absorbing energetical resources, whatever would be the dependence motivations, it ends up being a biological and physiological feedback providing and absorbing molecular compounds fit at living creatures to adapt surviving and evolve.

It is shown here that the emergence of "hierarchy feelings" is induced to the beginning of the fetal development period from the time conception until birth (gestation and then on…), is the transfer of a "mother's selective instinctive feeding thought" towards the best juvenile as socially felt as fit (surge of the dominant-dominated hierarchy behaviors phenomenon) developing a dominant relationship among the other off-springs, then instituting the sense of a hierarchy feeling to the one felt at top of the hierarchy survival reflex of a well-cared individual or felt as having the social level of a dominating mind (a general and everlasting attitude, whatever was or is found within the comportments of groups of individuals. Dominant can refer not just to a person, but to the position of a thing (a gesture, a word, in nature and societies). Domineering refers to individual behaviours (well used to describe a person's dominating actions) one of a person who is constantly trying to dominate the others around. Behind such psychological and natural behaviors, genetics shows that most multicellular organisms have those two sets of chromosomes (diploids illustrating the symbiotic result

showing homologous are homozygous or different alleles (heterozygous) forging them as to develop their survival means .

Sexually reproducing species, including human people and other animals, have two copies of each gene. The two copies, the alleles, can be slightly different from each other. The differences can cause variations in the production of specific protein, or they can change protein expression: when, where, and how much protein is made. Proteins affect traits and then behaviors, so the variations in protein activity or expression can produce different phenotypes[22] (. The affecting of traits produces the variability of evolutive behaviors, which is the dynamic systemicity of these symbiotic results that unconsciously come from the synergetic[23] of convergent traits and aptitudes between parents and juveniles inducing to the formation of new societies that may rule an exchange of their traits, then on inducing to the emergence of a specific dominant-dominated hierarchy evolution a species.

Lamellar corpuscles, or Pacinian corpuscles, are one of the four major types of mechanoreceptor cell in glabrous mammalian Lamellar corpuscle

Gray935.png

Lamellar corpuscle, with its system of capsules and central cavity.

a. Arterial twig, ending in capillaries, which form loops in some of the intercapsular spaces, and one penetrates to the central capsule.

b. The fibrous tissue of the stalk.

n. Nerve tube advancing to the central capsule, there losing its white matter and stretching along the axis to the opposite end, where it ends by a tuberculated enlargement.

Skin.png

Lamellar capsule labeled at bottom

Details

Location Skin

Lamellar corpuscles, or Pacinian corpuscles, are one of the four major types of mechanoreceptor cell in glabrous mammalian skin. They are nerve endings in the skin responsible for sensitivity to vibration and pressure. They respond only to sudden disturbances and are especially sensitive to vibration. The vibrational role may be used to detect surface texture, e.g., rough vs. smooth. Lamellar corpuscles are also found in the pancreas, where they detect vibration and possibly very low frequency sounds. Lamellar corpuscles act as very rapidly adapting mechanoreceptors. Groups of corpuscles respond to pressure changes, e.g. on grasping or releasing an object. skin. They are nerve endings in the skin responsible for sensitivity to vibration and pressure. They respond only to sudden disturbances and are especially sensitive to vibration. The vibrational role may be used to detect surface texture, e.g., rough vs. smooth. Lamellar corpuscles are also found in the pancreas, where they detect vibration and possibly very low frequency sounds. Lamellar corpuscles act as very rapidly adapting mechanoreceptors. Groups of corpuscles respond to pressure changes, e.g. on grasping or releasing an object. The biological organization is therefore the hierarchy of complex biological structures and systems that define life as using a reductionist approach.

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[22] - **Phenotype**: is the composite of an organism's observable characteristics or traits, such as its morphology, development, biochemical or physiological properties, behavior, and products of behavior (such as a bird's nest). A phenotype results from the expression of an organism's genetic code, its genotype, as well as the influence of environmental factors and the interactions between the two.

[23] - **Synergetics:** an effect arising between two or more agents, entities, factors, or substances that produces an effect greater than the sum of their individual effects. It is opposite of antagonism and is shown as the result of the symbiosis of various dynamics systemicity.

Survival is a matter of perception: the predator-preys cycle effect

SMELLING ; A MAJOR SURVI LAMELLAR CORPUSCLE

GRAY935.PNG

LAMELLAR CORPUSCLE, WITH ITS SYSTEM OF CAPSULES AND CENTRAL CAVITY.

A. ARTERIAL TWIG, ENDING IN CAPILLARIES, WHICH FORM LOOPS IN SOME OF THE INTERCAPSULAR SPACES, AND ONE PENETRATES TO THE CENTRAL CAPSULE.

B. THE FIBROUS TISSUE OF THE STALK.

N. NERVE TUBE ADVANCING TO THE CENTRAL CAPSULE, THERE LOSING ITS WHITE MATTER AND STRETCHING ALONG THE AXIS TO THE OPPOSITE END, WHERE IT ENDS BY A TUBERCULATED ENLARGEMENT.

LAMELLAR CORPUSCLES, OR PACINIAN CORPUSCLES, ARE ONE OF THE FOUR MAJOR TYPES OF MECHANORECEPTOR CELL IN GLABROUS MAMMALIAN SKIN. THEY ARE NERVE ENDINGS IN THE SKIN RESPONSIBLE FOR SENSITIVITY TO VIBRATION AND PRESSURE.[1] THEY RESPOND ONLY TO SUDDEN DISTURBANCES AND ARE ESPECIALLY SENSITIVE TO VIBRATION.[2] THE VIBRATIONAL ROLE MAY BE USED TO DETECT SURFACE TEXTURE, E.G., ROUGH VS. SMOOTH. LAMELLAR CORPUSCLES ARE ALSO FOUND IN THE PANCREAS, WHERE THEY DETECT VIBRATION AND POSSIBLY VERY LOW FREQUENCY SOUNDS.[3] LAMELLAR CORPUSCLES ACT AS VERY RAPIDLY ADAPTING MECHANORECEPTORS. GROUPS OF CORPUSCLES RESPOND TO PRESSURE CHANGES, E.G. ON GRASPING OR RELEASING AN OBJECT. VAL DECODING SIGNAL

- **The molecular powerful response of smell: a dynamics systemicity result**

At such level of perceiving things, the spectrum of odors possibly perceived represents the specific fields a species may detect since being a propitious prompt acts among varied emotional and cognitive responses ruling neighboring and surviving. The degree of perception recognizing a variety of smells without a conscious awareness depends on the type of species' perception architecture and the degree of their milieu components as to adapt with. The perception of specific odors leads to appropriate thoughts, memories and specific innate and learned behaviors (links between brain areas) that suggest a quest of a momentarily need as to feed in the proper induction at sustaining survival.

Whether smell is primal or creative, representing the aesthetic of a moment, all organisms develop, in the course of evolution mechanisms , some faculties proper to recognize various

odors or other senses naturally transmitted to the brain . There, it is decoded in order to provide an internal representation of the endo-exogenous world.

Life science requires the study of the different molecules in the environment and of its components. It leads going down to the level of genes and proteins in order to analyze the different arrays of scent perception and how the recognition of odors is translated into a map of odors quality, those transiting through the olfactory epithelium area. An area where millions of neurons coexist, proper to signaling information to specific cells and providing a direct physical connection between the external world and the brain. In addition, this area (the olfactory epithelium) contains neuronal stem cells, which permanently generates olfactory neurons throughout the life of organisms, since any individual must be continually humming around.

Inhaled odorous molecules bind to specialized proteins - receptor proteins – that extend from the cilia (…). The binding of odors to those receptors initiates an electrical signal that travels along the axons (…) towards the olfactory bulb, located in front of the brain, right behind the nose. The bulb is the first relay at processing information from both outside and taste milieu since connecting the nose with the olfactory cortex where occurs the control of thoughts and behaviors. To trigger an emotional or behavioral response, the brain uses an intricate logic identifying the detected odor at the level of genes and proteins. Genes provide the template for proteins, the molecules that carry out the function of cells:

- **First, the genes encoded proteins that pass through the cell membrane family of appropriate receptors activate the odor function,**
- **Second, the genes encoding the odor receptor proteins are active only in olfactory neurons.**

The tremendous amount of genetic information necessary to smelling something shows the sensory system of most mammalian species is to be significantly selective at sustaining survival and reproduction fitness efficiency. The smell has a more important repertoire of receptors over that of the eye one, the necessary power detecting light in the retina.

The brain can detect light in different but overlapping regions of the visible spectrum, so that one is able to be comparing input from the three types of detectors at identifying a color (mammals array of scents is of about 10’000 odors, each odor having to bind to several receptors). Taken together, it was shown that each sensory neuron expresses only one receptor since functionally distinct; however in all other sensory systems, the brain relies on defined spatial patterns of neurons’ ultimate targets to specify the quality of a sensation (perhaps also the same logic to the sense of smell).

According to species (Drosophilae, other vertebrates up to human as a mammals…) the complex behaviors controlled by an olfactory system is more or less complex in terms of the anatomy and phylogenetics that developed along the 600 million years of evolution separating invertebratess from mammals. Each odor elicit different patterns of glomerular (a compact cluster of diverse capillarity) which are conserved among animal evolutions.

This view of olfactory perception shares several basic features with perception in other sensory systems: i.e., in vision at interpreting the individual components of an image such as form, location, movement, color then reconstructing the signals in the visual centers of the higher cortex. Dissecting the structural features of a scent, the brain reconstructs the odor at the level of the olfactory cortex system from the symbiosis of diverse neuronal areas (recollection) which systemicity participate to the translation of signal dynamics prompted by the cortex into emotional and/or behavioral responses. The recognition of odors in mammals, humans and other species is both a matter of the unconscious and conscious reactivity in the direction of the value (quality and quantity) of the perception of an odor within the environmental milieu.

SENSE OF TASTE IS THE SYMBIOSIS OF THE SWEET, SALTY, SOUR AND BITTER SENSATIONS

Flavor is a complex mixture of sensory inputs (symbiosis of dynamics systemicity results) composed of taste (gustation), smell (olfaction) and the tactile sensation of food, nutriments and water as it is being visualized and munched (mouthfeel) together mixed with the environmental situation and events. Taste works from proteins that are essential for taste cells to detect sweet and bitter chemicals that are very similar to related proteins involved in vision, as well as some neuron areas that are responding to more than one type of taste signal. In reference, it is just as well as the neurons that process visual stimuli from the retinas while reacting to more than one color.

- **The taste detectors and systemicity**

Taste cells lie within structure called taste buds located within papillae around the tongue. Chemicals from food, nutriments and water or other taste proteins (any surface or liquid licked) go through the taste pores (top of the buds) that interact either with proteins on the surface of the cells called cell receptors or with pore like proteins called "ion channels". The mouth can detect four savors (salt, acid, bitter, sugar) and lately a fifth is discovered called "umami" (ionized form of aminoacid glutamic).

The whole procedures induces to interactions that cause electrical changes in the taste cells triggering them as to send chemicals impulsions towards different neuron areas in the brain. The flux of their electrical changes, vary their reactivity because of the diverse concentrations of charged atoms or ions, and provoke, as for many neurons, a net negative internally charge and a net positive externally charge (lets refer to the metabolism balance status at sustaining a specific global status of the body's sustainability here particularly centered at satiety). However, the correlation between chemical classes and senses quality is, generally in biology, within the quantity of the different expression of fluxes and moves issued from the evolution cycle of all present dynamic processes therefore their systemicity symbiotic results.

The different biological senses are interdependent to other dynamic sense occurrences which systemicity is the result of symbiotic interrelations and that of their feedback interactive specificity, according to the diversity of individual's characters and sensing results. The network of neurons areas have acquired specific variability together with their possessing a structure protected with an in/out membrane filtering chemicals, including neurotransmitters and electrical fluxes. Candace Pert discovered and described *opiate receptors, the mechanism by which a class of chemicals (peptides) circularly alters the mind and body cells with* opiate *receptor fluxes*, the mechanism by which a class of chemicals (peptides) modifies the mind and body moves. Her research led her to a whole understanding of the way emotions are functioning as regulatory systems in the body, in other words the mechanism by which *a class of chemicals (peptides) alters the mind and body*. "*The regulatory system in the bodymind which is shown by the traditional medical theory of psychosomatic is obsolete as observing only half the way of the natural e-psops*[24] *electrical cycle of the body-mind-body cycle* (JJBlanc-2004), the dynamics systemicity symbiosis of the procedures that are managing emotional feelings, such as taste.

Taste is, therefore, much more than a single receptors for the five primary tastings and the biochemical interactions they induce to in taste cells, it is rather well treated throughout neuronal networks. Other than common attributes said salty, sour, sweet and bitter, the taste

[24] - **e-psops :** environmental-psychosomatico-psychisms : the complete cycle emotion-body-emotional effect…

system also represent sensing the intensity of pleasure, and also that of unpalatable or neutral of the resented tastes. Neurons in the taste neurons web pathway often respond to touch and "temperature stimuli" recording simultaneously these attributes that are much as those in the visual system representing shape, brightness, color and moves.

Taste cells are diffusing sensory information much critical for living creatures as to detect and appropriately respond to needed own endo-exogenous specificities sustaining survival, in other ways in its necessary nutrients and energy ingestion. Within the world of plankton, and particularly their primary ways as to exist and survive, the emergence of the predator-preys cycles that sustain the dynamic balance of species metabolism, particularly at the level of the sea-microplanktons called "mixotrophs" showing their predator-preys behaviors, is at the origin of molecular interactions inducing how to develop and grow survival functions.

Sensory information from taste cells is critical for helping living creatures to detect and respond appropriately to needed nutriments and senses:

- **Ingestion of carbohydrates,**
- **The release of insulin,**
- **Seeking out and ingest sodium,**
- **Seeking foods high in certain vitamins and minerals,**

Contrarily, they are not usually ingesting harmful substances, such as bitter molecules linked between taste and disgust. Many plants have evolved toxic compounds (strychnine, plant alkaloids) which have a highly bitter taste (African acacias[25]…). With such means, plants have by themselves evolved with protective mechanisms against foraging animals which reject the bitter and acid taste of food and smell. They also communicate pleasure and displeasure with they facial form or molecular and hormones sprayed around towards neighboring self as expressing a community danger. Gastrointestinal distress is one of a high signal that induces to show the dangerousness of some food, nutriments and water ingestions.

- **The cultural origin of savoring diets and social structuring**

Without cooking, an average person would have to eat around five kilos of raw food, nutriments and water to get enough calories to survive. The daily mountain of fruit and vegetables would mean a six-hour chewing marathon. It is already accepted that the introduction of meat into our ancestors' diet caused their brains to grow increasing their intelligence to adapt with new behaviors, particularly within the result of their creativity at inventing new "savoir-faire". Meat - a more concentrated form of energy - not only meant bigger brains for our ancestors, but also an end to the need to devote nearly all their time to foraging at maintaining energy levels. As a consequence, more time was available for social structure to develop. In other words, the way in which preparing food causes a radical evolution of species surviving. Humans, which survival made them moving progressively out of the trees and onto the African environmental changes (savannah…) and then induced to an increase in their way evolving their omnivorous eating with other and new kind of animals that grazed and chase in other part of a close ecosystem where they happened to discover new food opportunities.

Change of habitat, lifestyle and diet, prompt specific and major changes in the anatomy of a large diversity of species populations . Eating flesh[26] tied in with an evolutionary shift about

[25] - Plants are capable of recognizing the penetrating pathogens and of responding to their attack by the activation of their defense systems. Signal transduction from the receptor to the cell genome is required for this activation. Recently, signal molecules have been found, which are involved in the signal transduction triggered in response to biotic stress. The data accumulated imply the presence of a complex and well-coordinated signal network in plant cells. These nets control plant defenses response to pathogen attacks: a general systemicity principle sustaining all livings to have and initiate appropriate reflexes and behaviors .

[26] - **Flesh:** the soft parts of the body of an animal and especially of a vertebrate as the parts composed chiefly of skeletal muscle that are distinguished from internal organs, bone, and integument (the layer such as a skin, membrane, or cuticle) of an organism or one of its parts.

2.3 million years ago, resulted more species ancestors to be growing sharper teeth and a 30% bigger brain enabling them to get new survival resources and behaviors facing new opportunities. If many other species went better armed getting their food, nutriments and water survival requirements, a mammal species lineage called Homo-habilis, especially creative, discovered fire over games was giving new flavors and a diet cooking pleasurably enhancing new savors.

Two million years ago was the result of evolving traits in eating bringing some new savoring and energy; a resilience out of the natural effect of fire and a new cooking method for a different diet. At the same time, plants had found from fire revival means within certain milieus, by their seeds to be sensitive to a higher ecosystemic warmth propitious with their hatching capabilities adapting with a new life style. If a forest is dry, a cloud to ground lightning strikes can easily set fire and induces to new species. Forest fires are a natural process and are needed to clear excess vegetation, regenerate them from new growth, add nutrients to the soil, and in the same time, induce to a change within the biological and physiological components of an ecosystem, partly changing it from its resilience aptitudes.

The dynamic systemicity of animal tastes and human cooking

Cooking has had and nowadays has a profound evolutionary effect on account of its increasing the food diet efficiency of population social cultures and their physiological structure and form. It has allowed human ancestors to spend less time foraging, chewing, and digesting. Homo-erectus developed a smaller, more efficient digestive tract which freed up energy to enable larger brain growth. Lately, it has also been argued that cooking and the control of fire generally affected species development by providing warmth from wood-fire and was helping to fend off predators, a situation that contributed human ancestors to adapt a definitive ground-based lifestyle. Wrangham points out that homo sapiens became highly evolved from eating cooked food because he could not and cannot maintain a real reproductive fitness with raw food. He asserts heat turns hard-to-digest carbohydrates into sweet, easy-to-absorb calories. Using the protein, fat, and carbohydrate makeup of modern fruits, seeds, meats, and tubers[27], the Wrangham's team calculated that the caloric value of diets containing various proportions of these foods is assuming a constant total amount of food dry matter. In other terms, a diet of 60% cooked tubers, the proportion averagely used in modern native African diets, without meat, boosts caloric intake by about 43% over that of humans eating nuts, berries, and raw tubers, says Wrangham. Contrarily, a 60% meat diet just offers a 20% advantage. "There seems to be a genuine energetic advantage in cooking food" on account of the chemical systemicity of its molecular component change effects.

As soon as born, animals' tastes show that all species varieties neural connections are totally dependent with environmental survival or lethal tastes , usually based on sets of individual neuron patterns specifically tuned for one or other taste varieties fitting to a chance surviving. However, it is important to remember that no single neuron type is alone able to be discriminating stimuli of different qualities since a given cell responds the same way to stimuli and is depending on their relative concentration, therefore degree of dynamics systemicity and individual biophysiological structure induced from symbiotic results.

Taste is like vision photoreceptors that respond to light wavelengths allowing to see billion of the rainbow shades and that a miss of one pigment disrupt color discrimination. For example, it illustrates the actual evolution of modern cooking offering a large assortment of savors around a single recipe. Since the symbiosis result of all specific dynamic systemicity sets is a universal principle, taste is a synthetic sense like color vision, in which combinations of colors produces

[27] - **Tubers:** tuber crops such as cassava, yams and cocoyams (in French tubers are tubercules).

a unique quality, in other terms is the precise determination of the relation between the activity of these tuned neurons and sensations from taste mixtures as orienting the art of mixed molecular tastes upward a high quality production (top-chef savoir-faire and multinational savors reputation or animal self-medication). Such approach of taste truly sends back to the neural representation of taste stimuli and the perception of taste quality that is an innate biological body function structuring the fitness of survival systems, all those symbioses of sub-dynamics systemicity results that support the dynamic balance of any creature's metabolism[28].

Senses symbiosis at interpreting an endogenous or exogenous information

None of senses given or meant by an individual, or scarcely so, have a flash over one single aspect of an event, or a signal out from an environment or milieu. All senses participate at different level of their implication within feelings, both those originating from the endogenous and exogenous conjecture an individual is momentarily living or interacts with a sudden conscious or unconscious, subconscious or unaware event. Most of the time, the major conjunction of sub dynamics systemicity results, symbiotically form the entire list of the "specifications of a sense given or meant" by the individual.

All behaviors induce any individual entity to use several of its senses together. It require a instinctive and conscious coordination of senses saying vision is the process of deriving meaning from what is seen: the visual process is to arrive at an appropriate motor, and/or cognitive response. Vision and touch together inform about the shape of something, its texture: the feel, appearance, or consistency of a surface or a substance.

Visual Perception

Visual-Motor Integration - Eye-hand, eye-foot, and eye-body coordination.

Visual-Auditory Integration - The ability to relate and associate what is seen and heard.

Visual Memory - The ability to remember and recall information that is seen.

Visual Closure - The ability "to fill in the gaps," or complete a visual picture based on seeing only some of the parts.

Spatial Relationships - The ability to know "where I am" in relation to objects and space around me and to know where objects are in relation to one another.

Figure-Ground Discrimination - The ability to discern form and object from background.

[28] - **Metabolism;** the sum of the chemical reactions that take place within each cell of a living organism and that provide energy for vital processes and for synthesizing new organic material.

References

Other than references placed in the text, they will be found after part 10th later coming because this present work is only part 7 of this theory.