Trans, Inter, Mono-disciplinary Approaches Upon the (Computing) Anticipatory Systems

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Abstract

One of the primary social and economic tasks (or ... trouble, but mental gift) is to be aware of beforehand. It would mean: care for the future, task concerned with or applying to the future, procedure(s) of prediction / estimation. But, the social and economic tasks are not isolated. There are complex mental concepts related to the becoming of any human being, and to our societal aggregation. It is the entire anticipation by, with, and in us, society, and world - as an anticipatory system. The New Economy, the Information Society, the Knowledge Society are mental constructs as large as to receive an entire meaning. A corresponding string (comprising the relation: mental concept <=> mental constructs) would be: the foresight, prospective task, forecasting - sustained by trans. inter, and mono-disciplinary approaches of the humankind into our reality and virtuality. Keywords: anticipation-consciousness mental intersection. e-Constructs_ Internet_Internetron, holistic hypothesis, humankind gap(s), qualia

1 Introduction

The members of a complex-pluralistic society would think in terms of multi-group, multi-dimensional paradigms, planetary connections, and openness. One deep reason of a contemporary low crisp-intersection area between the quasi-ascending of the tech-sphere and the problem solving of the psycho-sphere may be the humankind gap between reality and reflection [23]. Some of the problems which are embedded into this gap are connected to our and societal anticipation. But now, the complexity of this gap is increased through the world wide web viability (albeit its only just potency, according to the huge "uncovered zones" of the Planet). Our contemporary completed relation is: mental concept <=> mental constructs <=> e-Constructs. May Internet context and e-Constructs to "change" the above-mentioned "deep reason", and the "humankind gap"? May it deliver a new status according to our and societal anticipation?

The paper holds that one possible insight of the humankind gap is to be within and across K. Gödel's [12], K. Arrow's [2], G. Pãun's [20] theorems frames. [Relative to: impossibility of the formalization of Arithmetic, impossibility of a generalized rational aggregating decision, impossibility of a set of indicators to be sensitive, anti-catastrophic and compensatory.] It would elicit that all these three frames prove that: from N natural cognitive desired properties inside an systemic entity, only N - 1 properties may be co-assured inside a system by a rational subject [17].

* May Internet context to "change" the ratio N -1/N properties ?

^{**} May it deliver a new status according to our, society, and world anticipation?

These are, up, the two different problems (as questions) – let us try to represent and to resolve.

2 Has humankind the necessary pullback insight to proceed e-Concepts?

Albeit the general desired "Yes", here, there is an emerging "Fuzzy-No". Also, this fuzziness outlook [26], [18], upon the contemporary complexity, elicits a new type of fuzzy approach - as some alternate actively answers to the above-presented question, and then an answer as a fan within each active answer, once. Also, this answer is structural-phenomenological [1], [9] connected with our anticipation [21], [10] and operative [7] acts.

The humankind had dealt with anticipatory events and/or with solving tempestuous tasks from the beginning of the hard interaction with the Nature [28], [27], [22], [15]. [I propose -as an old folklore-pattern seen from the contemporary background- the title (and the algorithmic/heuristics well balanced content) of an Eastern European tale: "Go there - I don't know where, bring me something - I don't know what".

The new fuzziness approach upon the triad (e-Constructs implementations, operative actions, anticipatory systems), proposed inside this paper, is also related with the relation depicted by the title of this paragraph [and, why not, with the content of the old tale

reminiscent for this paper].

Why this consideration (firstly as a belief)? [Apart of the cases as: graphical extrapolation time series, repetitive operative problems (for the same team) and, respective, e-Commerce by, with, and in www-labyrinth.] This because -especially for very hard problems- the successful end task is supported not only by luck, training (pre-internalization of similarly supposed cases), personal decisional abilities, superior IT parameters of a human-technique team. [6]. [7], [8] There is a sustainable and quite linguistic well-expressed feeling of the holistic-ness for the anticipation or operative problem solving within the Internet www-surfing (within the respective team). This feeling of holistic-ness - is supported or not by the decider or IT team. This holistic approach is related with as much knowledge as possible inside a natural (expert) system or contained inside an IT environment. There is the "same" kind of gift as those putted in act by:

* the medieval deliberate false astrologers (related with anticipatory tasks);

* different types of Camarillo as possessing of those pretended qualities making them influent co-members of a staff - to be ever seen as useful by their chief (related with

unexpected operative tasks); and ...

* different types of Computer scientists putting in act as successful web designers (without a classical internalized culture, without a psychological understanding of the human being deep-reception of colors, sounds as patterns and information too). All of them were and are possessing the native understanding of the human being weak points and hidden desires.

In the same way, that of a constructed feeling of holistic-ness, any IT project dedicated to e-Commerce, e-Economy, e-Administration can not deny the parallel processing of analytical and synthetic tasks, which are very profound not only from the IT point of view. A happy community is that one re-according itself as a whole (despite of the necessary modern specialization and dividing of the labor) - that is why, dynamically, analytical and synthetic tasks redefine a real happy community.

From micro-Cosmos till macro-Cosmos through our humankind complexity the reflection of the reflector processor upon itself and upon the whole is a natural fact, but not an usual ability. Nor neither capabilities, nor performances upon any contemporary tasks claim the reflection upon the reflection. Nor upon your ego, nor upon the whole. But the superior and complex "cold war" systems had at least one processor for the surveillance of the minimum two parallel "main" task processor. That is a kind of human project -as desired capability- not re-constructed for us.

Albeit the huge accumulation of scientific data regarding History of Religions, this paper is apart of some old European traditions. Also, it is apart of some Oriental religious habits, and apart of the native image of the God as an absolute observer (sometimes considered as non-controller, "free will"). Albeit all these, the consciousness (as supposed human datum) and the Universal Consciousness as a connectionist frame of everything are useful turning points for any approach desired to attain a feeling of holistic-ness and/or the reflection upon the reflection. And both profound cognitive searches are linked with anticipatory and operative tasks, too.

That is the background to consider upon similarities between Anticipatory Systems and Operative Actions. This background does not support any mystery, illuminations, parapsychological events. That is only for the reason of hard complexity of contemporary Neuroscience and Artificial Life and Intelligence that absorb all the interdisciplinary aims toward the becoming of some coherent monodisciplinary resources of any researcher devoted to anticipatory and operative backgrounds. [There are high quality research upon miracles, but, also, usually, the scientific admiration is stopped by the current tasks: Computer Science, Neural Networks, Expert Systems, Cognitive Science - all these have become strong monodisciplinary entities into their high specialization (albeit their previous interdisciplinary becoming)

The e-constructs -as a contemporary ascending reality- is supported by some keen monodisciplinary approaches - in the anticipation of us. This monodisciplinary set of complexity would be a pattern of the forecasting.

This is well-known.

3 e-Constructs prolong the similarities between Anticipatory Systems and Operative Actions

Any IT projects dedicated to e-Commerce, e-Economy, e-Administration can implement new variety of methods for anticipation and operative behavior. It is a challenge - or even it is necessary - to introduce new features connected with the anticipation and operative acts inside a realistic IT. There is a more and more large set of humankind (re)actions (pretensions, acts, re-acts – and why no, re-pretensions) to implemented e-Concepts.

My proposal, here, is for a minimal Quality Assurance, for networks minimal security, and minimal moral ascending pretended from each of the e-Concepts to be putted in act. It is considered that e-Commerce involved a hard task to attain these three minimal pretensions. It seems that e-Commerce involves the minimal re-acts.

The "New Economy" scientific item is a dual one, but related (only) to max. profit.

The first acquisition is a deep scientific one related with Economics and the innovative trend in the School of Oxford. Meantime New Economy is an economy of knowledge, I presume that is the "last"/"first" millennial chance to penetrate the virtual dichotomy: (neo)liberalism - (neo)keynes-ianism, through an interdisciplinary will co-merging (from inside, at least) Economics and Sociology. [Psychology, Anthropology, Ethnology, Etiology, Cognitive Science would must co-merging if humankind status is more dramatic-important than the academic standards.]

The second acquisition is the long-term trend of American economic boom.

Both of these acquisitions are indebted to high ascension and deep computer scientific research related with Internet - as a support, and firstly with the contemporary new individual and group behavior which primarily seems to prove the "invisible hand" paradigm of Adam Smith. From some perspectives, the incompossibility of Mainard Keynes post-First World War assumptions could not be overwhelmed by Internet context, and by the focused insight existing here: e-Commerce.

The New Economy balance (virtual reality - real virtuality) is supported by an interdisciplinary approach - a "jointed" one - with, and in the anticipation of us, and society. This interdisciplinary set of complexity would be a pattern of the prospective task.

This is the equivalent methodology to represent the problems * and ** (see §1).

4 The New Economy, the Knowledge Society, and e-Constructs coexists during our time

Their (money; knowledge; IT) interaction is the possible surprise of this beginning of century and millennium too. Admissible time is the common locus for the three abovementioned constructs, constrained by a demanded continuo progress.

e-Constructs fan, New Economy extroverts (each of them) and Knowledge Society introverts (into the entire group) are co-emerging coherent expectations. For us, there are "parallel" expectations. [The expectations are not overlapped by a (systemic) synchronous hope. The set of individual expectations is not the entire hope. The desired flow: universal-global-planetary would prove or deny these assertions.] The anticipatory gift of the human being is interfering with these expectations.

Humankind universal-global-planetary attempt was and is connected with Sustainable Development topos. Rio treatise - 1993, Kyoto protocol, Johannesburg 2002 summit, all G8 meetings are hard anticipation-consciousness intersections. Contemporary

consciousness is linked with the e-Constructs implementations. There is an implicit fan for e-Constructs implementations [the term "fan" is here challenged by the well-known term "fan-in/fan-out" for integrated circuits]. If this term of "fan for the e-Constructs implementations" would be accepted, then the fuzziness approaches, and a holographic hypothesis would be necessary processed. Internet context / presence may be estimated through a pre-defined "Internetron" (as a structural-phenomenological entity) related not only with Internet high scientific status and miraculous humankind behavior. According with a quasi-planetary data base, knowledge dynamic pole, holoscopic brain, new practical type of mind, new collectivity (within new individuals and groups), the "Internetron" entity may be associated with intro-openness, New Economy, Knowledge Society, operative actions, virtual holistic entities, virtual reality - real virtuality balance. There is the societal challenge for a maximal profit, meantime turning to equity, sustainability and entireness. It is a transdisciplinary approach - an entire one - by, with, and in the anticipation of us, society, and world. This transdisciplinary set of complexity would be a pattern of the foresight.

This is the equivalent procedure to resolve the problems * and ** (see §1).

As a conclusive relation:

The foresight; the prospective task; the forecasting; the "next" foresight efforts <=> trans, inter, and mono-disciplinary approaches <=> entire anticipation raised by, with, and in us, and elicited through the society as an anticipatory system, as an anticipatory New World.

As an aggregated open problem:

The evolution of the Internet (to Internet X -the generalized links between all the human beings, regarding all our perceptual inputs- and the other future possible steps) would "increase" the entire anticipation by, with, and in us, and through the society, and world?

5 Comprehension after / behind / according to PLATO upon the interface: IDEA <=> HUMAN BEING <=> MACHINE - as a (virtual) processor into (computing) anticipatory systems

This comprehension tries to focus on the explanation / understanding of the complexity of our profound worlds (including the contemporary globalized / regionalized world) through:

* the (re)construction / (de)construction of an **image of the WORLD** from the *linguistic* patterns;

* the ordination of the linguistic patterns into a "to BE" X "to HAVE" imaginary space;

* the association of { the "to belong to" dimension of the World; operator of "to belong to"?; to HAVE };

* the association of { the "existence" dimension of the World; operator of "existence" ?; to BE };

- * the co-planar mapping of the "to belong to" dimension of the World with the "existence" dimension of the World resulting a planar image of the World;
- * the fragmentation of this planar image according to the translation from the circular humankind ring: {information1-decision-action-information2} to the humankind linear flow {humankind awareness; human insight; social action};
- * the pointing of the fragmentation of the planar image through comprehension;
- * the comprehension after / behind / according to PLATO by pointing the famous thinkers related to "to belong to" dimension, and to "existence" dimension of the World the both dimensions seen within {humankind awareness; human insight; social action};

Table 1

the WORLD as (hypothetical) system / model / ideal		the "to belong to" dimension of the		
		World; the con		nnections to:
comprehended aft	omprehended after / behind / ccording to <i>PLATO</i>		SPINOZA human insight	GOETHE social action
the "existence" dimension of the World;	Saint AUGUSTIN humankind awareness	LEIBNIZ	Husserl	GÖDEL
the connections	Saint TOMAS from AQUINO human insight	Berkeley	KANT Frege Bruwer ROUSSEAU	Newton
	HEIDEGGER social action	ARISTOTEL	Wittgenstein	POPPER

Up, there is the comprising into a single table of a "noumen" image of the WORLD as (hypothetical) system / model / ideal; the image is based on a co-planar mapping of

the "to belong to" dimension of the World; operator

of "to belong to"?; to HAVE

PLATO RE-UNDERSTOOD BY: CUSANUS; SPINOZA; GOETHE

PLATO EXPLAINED THROUGH THE "RE-TRANSLATION" OF: ARISTOTEL; ROUSSEAU; GÖDEL

the "existence" dimension of the World; operator of "existence"?; to BE

PLATO CREATIVE PROFOUNDED BY: Saint AUGUSTIN; Saint TOMAS from AQUINO; HEIDEGGER

PLATO "RE-LIVED" THROUGH:

LEIBNIZ; KANT; POPPER - respective ante, inter and/or post-complementary with: (Newton; Cantor); (Berkeley; Hegel; Schopenhauer; Nietzsche; Eminescu); (Frege, Bretano / Husserl; Russell; Wittgenstein; Bruwer / Heyting).

The INTER / TRANSDISCIPLINARY and INTERCULTURAL "assuming" responsibility of the above presenting co-planarity ("existence" and "to belong to") is expected.

According to the *expected responsibility*, into the context of this paper, it may propose a holistic interface:

IDEA <=> HUMAN BEING <=> MACHINE . This interface may be used as a (virtual) processor into the (computing) anticipatory systems:

Table 2

the image of the WORLD (comprehended after / behind / according to Plato)		"to belong to" dimension of the World; the connections to:			
		humankind awareness	human insight	social action	
the existence" dimension of	humankind awareness	REACTION (e.g. judiciary)	to understand	TO HAVE	
the World;	human insight	to "pass" again	QUALIA	to explain	
the connections to:	social action	то ве	to "live" again	ACTION (e.g. finance)	

Why it may be used as a processor into the anticipatory systems? Because an anticipatory system is an image of the World (it is necessary to be an image).

Which is the sufficient background of this processor? This image of the world may show us the expected sections through it: UNDERSTANDING section, the EXPLANATION section, the "process_product" section (within its course: action <=> reaction), the linguistic section (within its most frequent linguistic patterns).

It would be an opportunity to consider the "process_product" section as the PRAXIS trace (comprehending its emergence), the linguistic section as the BELIEF trace (trying to comprehend upon its inner profoundness).

<u>Proposition 1</u>: A sufficient background of an anticipatory systems is the aggregation of the { BELIEF; UNDERSTANDING; EXPLANATION; PRAXIS }, regarding its context. Into the Internet context, it would draw to a new structure: to denominate it as "Internetron". The any "process_product" section, within our world(s) would contain

virtual links between their entities, constituting Internetrons.

But, within the context of an anticipatory system, which are the inputs and outputs of this (virtual) processor? Answer: our QUALIA are the inputs and outputs. The "fan in" and "the "fan out" to be virtual, to have the general sense of to be virtual.

So, there is an "special" processor; it "implode" and "explode" our qualia from and toward the elements of the anticipatory system. If it is only a human anticipatory system,

then the IDEA <=> HUMAN BEING part of the interface is in act. If the anticipatory system is a computing device then the HUMAN BEING <=> MACHINE part of the interface is in act.

<u>Proposition 2</u>: A necessary and sufficient background of an anticipatory systems, within contemporary World Wide Web (Internet), is the interface IDEA <=> HUMAN BEING <=> MACHINE, as an "special" processor which "implode" and "explode" our qualia.

<u>Definition 1</u>: Our individual qualia is the cultural trace and the societal qualia is the aggregation of the { BELIEF; UNDERSTANDING; EXPLANATION; PRAXIS } across the humankind *linear* flow *{humankind awareness; human insight; social action}.*

The individual qualia as the cultural trace and the societal qualia as the aggregation of the { BELIEF; UNDERSTANDING; EXPLANATION; PRAXIS } is represented, here, across the humankind linear flow {humankind awareness; human insight; social action} and not across the circular humankind ring: {information1-decision-action-infromation2}. But, the both representations have valuable results, so the both are desired. Only the set of the individual chances "conduct" us or to the Linguistics, or to the Cybernetics. It is an individual long termed gain, as knowledge transfer. A holistic being, as using both words and number, must be open to as much as possible varieties of modeling upon the World.

<u>Definition 2:</u> The dual translation: humankind linear flow {humankind awareness; human insight; social action} <=> circular humankind ring: {information1-decision-action-information2}, into a fuzzy context, between linguistic patterns and cybernetic constructs is the desired base of the interface IDEA <=> HUMAN BEING <=> MACHINE as a (virtual) processor into (computing) anticipatory systems.

All these elicit the novelty (supposed).

Note 1: The following tasks were proper to the paper "A New Fuzziness Approach Upon the Operative Actions" (International Journal of Computing Anticipatory Systems, vol.13, CHAOS, 2002, p. 34-49): the framing of the Rational Subject, and its act, the Profound Zone, the completeness and the consistency within anticipatory systems with operative tasks, the (non)systemic entities within operative anticipatory tasks, the complex contiguity between "intentionality" and "responsibility", the relation mental concept <=> mental construct, the attaining of a N - 1 / N higher status through an increasing number of fuzzy characteristic functions, intro-openness.

The following tasks are proper to the paper "The Consciousness and the Body" (The Body in Social Sciences, ISA, 2003, in printing): intro/extro-openness/closed domain, the power of language across the "(un)visible (hu)man" string: to be, to have, to combine, to concord, to conduct, till attaining of an algorithmic procedure / heuristics to improve our interface with a concrete problem (to be represented and solved).

All the above mentioned tasks are related to anticipatory systems, and all of them use the above defined interface IDEA <=> HUMAN BEING <=> MACHINE, into the presented co-planar mapping of the image of the World.

Note 2: This comprehension after / behind / according to PLATO do not refer or point the inflexion points indebted to Christ, Saint Apostle Paul and the Christianity, the

introspective balance **Descartes** <=> **Bacon**, the macro-social effect of the **Marx**'s thesis, the psycho-analysis post-**Freud** - versus **Jung**'s and **Adler**'s alternatives, the 1975 direct debate between **Chomsky** (innateness) and **Piaget** (acquaintance), the interdisciplinary corpus of the Cognitive Science ("between" the contemporary Analytical Philosophy, ..., and the long termed Artificial Intelligence and Life).

6 Anticipatory and Planning tasks toward the Consciousness hypothesis

The human being, within its basic "datum" (productive aim, intelligence, morality), observes and acts upon the World. The long-term acquisition over this "datum" is the humankind model of the World. It has two equilibrated emergence neighborhoods: anticipatory task and planning task. If an "intelligent" robot is to be coupled at the humankind efforts, then, its structure will contain the same anthropomorphic entities: observing, acting, modeling the respective world, anticipating, planning. Generally, there is expected an "local" equilibrium: anticipating <=> planning, and an "holistic" equilibrium: between all the anthropomorphic entities.

So, the Consciousness (seen as the reflection of the reflection) is carrying the "local" and the "entire" equilibria.

If the societal gap is minimal, and also the existence-reflection balance, let be an external Rational Subject to reflect all these. He/she may present a consciousness [1],[9], [24]. Also, into the observed context a consciousness may be identified. Let continue this process -independent of space, time and other objective causes- till both the ultimate external Rational Subject and the ultimate internal Rational Subject are involved, within their consciousness, within a quasi-continuos search.

<u>Axiom 1</u>: The respective quasi-continuos status of reflection upon reflection would promote the Universal Consciousness.

The above presenting hypothesis (holistic), and the axiom, here, claims two current objectives:

* To introduce the possibility of a mental construct —as model- for Anticipatory Systems and Planning Systems — their "local" equilibrium: anticipating <=> planning, and an "holistic" equilibrium: between observing, acting, modeling the World, anticipating, planning. This mental construct may reach all the possible values, only some of them being favorable to the systemic existence-reflection of the entire context.

* To synthesize, here (within the personal criticism upon the here presented hypothesis), upon the complexity of human reflection upon reflection enrolling three human triad: T1(faith; hope; will), T2(prejudice; surprise; evidence), T3(e-Concepts; expectation; admissible time).

The T1 is connected with one of the trends of this paper: a transdisciplinary approach till the foresight; T2 is connected with an other one: an interdisciplinary approach till the prospective tasks; T3 is connected with: an monodisciplinary approach till the forecasting tasks.

T1, T2, T3 are the humankind traces of the difficult effort of (re)construction the "local" equilibrium: anticipating <=> planning, and an "holistic" equilibrium.

The interface IDEA <=> HUMAN BEING <=> MACHINE as a (virtual) processor into (computing) anticipatory systems is the humankind trace of the ever present perfectionist turning point: the (de)construction.

All these T1, T2, T3 are "replicated" as emulated into the following open table. Into its ninth row, there is an attempt to emulate the basic properties of a systemic entity (synergy, non-entropy, ephemerality) by, with and in a structural mental approach. This approach is consider to be otherwise emulated by the algebraic thinking and praxis accumulated by the humankind (through mathematical science). As a consequence of this long term accumulation, the Category Theory stands as elevate expression; its main item are the (auto)functor. Here, it is considered that the human reflection upon reflection is a quasi precedent of the synthetic and structural approach within our world(s).

So, reversing the items, there is supposing the enrolling of the three human triad: T1(faith; hope; will), T2(prejudice; surprise; evidence), T3(e-Concepts; expectation; admissible time) as the results of the emulation of the algebraic (auto)functor.

This is a result for what this paper sustains as related to anticipatory systems deepness. All the other rows—into different degrees- sustain the same research objective:

Table 3

<u>Property:</u> :Emulation	Synergy [13]	Non-Entropy [3]	Ephemerality [11]	Other property (?)
Matter criterion	Energy	Information [4], [5]	Substance	
Old European symbol	Labyrinth	(Solar) Radiance	Circular way	•••
Primal philosophical element(s)	Fire	Light	/\ Air Water Earth \/	
Christian Theological Entity	God	Holy Spirit	Redeemer	
Saint Paul's part/completeness	Faith	Норе	Love	4.00
Cybernetic & Systemic principle	Input/Output	Information	Reaction(s)	
Basement of problem representation	Dynamic determinism; Probability	Fuzziness	Subtleness	
Analytical operator / act	Existence	Belonging ∈	(Humankind) act	
Algebraic quasi(auto)functor	T2	T1	Т3	
Basement of problem solving	(Non)systemic proceeding	Inner words seeking	Acting subtle sets	•••
Neural-deepness	Thinking (systemic and a, non, un-systemic)	Reasoning	Minding	
Human large activity	Energetic subsistence	Knowledge and Technology Transfer	Generations sequences	
Rational Subject	Must	Will	Can	

Humankind expression	Belief(s) toward Emotion(s) versus Desire(s)	Belief(s) toward Desire(s) versus Emotion(s)	versus Desire(s) versus Belief(s) versus Emotion(s) versus	
Contemporary world minus	Sociability	Equity	Sustainabilty	
Eco-consciousness	Harmonic dimension [14]	Happiness dimension [19], [16]	Co-ordinate dimension [23], [25]	
Creative Partnership Construct	Creative Partner	Subtle Indicator	Subtle World	
Creative Partnership Effort	International Civil Society	Creative (e-) Market	Charta of Creative Partnership	
Other emulation (?)				 Magain a luli

So, into the last rows of the table, it is considered the emulation for what is missing to our world(s), to our (computing) anticipatory systems: eco-consciousness, creative partnership (construct, and effort).

The open constituting of the table, ask the readers in (computing) anticipatory systems to consider other relevant properties of the systemic entities —if any, within our mental concepts—and, also, to search for other ideas, mental constructs, their arhitecture, and emergence for a real, virtual and ideal humankind attempt(s) of the anticipation within our world(s).

Returning, only and only, at the T1, T2, T3 emulating results of the systemic background of the anticipation efforts, then a proposition is elicited:

<u>Proposition 3</u>: If, and only if, a Rational Subject can observe the co-existence of T1, T2 and T3 (inside the managed entity), and can act according to a (virtual) processor into (computing) anticipatory systems, than a necessary condition to attain the (re)construction and (de)construction may be observed and acted.

<u>Consequence 1</u>: The relation "Rational Subject — Universal Consciousness" may be putted into some observations and acts. If, and only if, the local (cognitive) processor(s) are acting according with a minimal gap between existence and reflection, and a minimal societal gap exists inside the respective community, then both the *(re)construction and (de)construction* are desired and possible.

The Consequence 1 means: a maximal holistic capacity – versus eco-consciousness, and the minimal responsibility of the societal processor(s) is not overflow.

<u>Consequence 2</u>: The relation "Rational Subject – Universal Consciousness" may be expanded through:

- * the *(re)constructive fusion* of the foresight, prospective tasks, forecasting, versus T1, T2, T3, into the entire context, including anticipatory and planning areas, AND
- * the (de)constructive fission of the interface IDEA <=> HUMAN BEING <=> MACHINE, into the anticipatory area. Let expect all these as consequent algorithms and

heuristics, and to denominate all these as "anticipatory solving". All these would constitute the anticipation-consciousness mental intersection.

These are the aspects profound (supposed) related to anticipatory systems.

7 Has humankind the necessary analytical and synthetic insight to proceed e-Concepts, within the anticipation task?

The answer is "Yes" minding, here, at the invitation to a both analytical and synthetic praxis through the implementation of the Table 1 and Table 2. Table 3 has an open analytical invitation to the readers. The deepest task of a reader into anticipation profoundness is to find the narrow path between analysis and synthesis. To name it: Interactive Modeling. So, in order to balance the analytical invitation of the Table 3, it is possible to propose an interactive process between the efforts to complete (within a real anticipation task) Table 3, and the efforts to synthesize (within the same real anticipation task) the mental concepts <=> mental constructs presented into the Figure 3 [7]. So, it is virtually remembered, not pasted, here. Into the www context, it is an example of an Internetron. [Only to remember, and to transform, according with this paper, the title of the respective figure: "The locus of a Subtle (Probabilistic & Fuzzy & ... Approach) upon Humankind Entities. Is this, also, the locus of anticipatory systems? This proposal presents some positive items."]

Conclusion

It is proposed a new insight upon the Anticipatory Systems: their (RE)CONSTRUCTION and the (DE)CONSTRUCTION according with a proper balance:

- * Probabilistic system fuzzy system (intro-extro)open / closed entities artifacts toward foresight, prospective tasks, forecasting regarding MONO, INTER, AND TRANSDISCIPLINARY APPROACHES;
- * (Non)systemic entities: integron...metatron-net-Internetron-transitron...individicity as the structural insight toward the complexity of the interface IDEA <=> HUMAN BEING <=> MACHINE and the respective triads to support the Universal Consciousness hypothesis;
- * A start-synergetic-idea: { BELIEF; UNDERSTANDING; EXPLANATION; PRAXIS } as a (re)turning from cybernetic domain to linguistic domain;
- * A cognitive task: systems anticipatory modeling Universal Consciousness represented "between" to BE and to HAVE; a planar image of the World;
- * Possible future researches to attain consequent algorithms and heuristics as "anticipatory solving", inward this (or other planar) image of the World.

References

- [1] Amoroso Richard L. (1999). A Brief Introduction to Noetic Field Theory. The Quantization of Mind. *Brain and Consciousness*. Rakovic, and Koruga (eds), ECPD.
- [2] Arrow Kenneth J (1963). Social Choice and Individual Value. Wiley, New York.
- [3] Bailey Kenneth (1997). System and conflict: towards a symbiotic reconciliation. Quality & Quantity 31, pp. 425-442. Kluwer Academic Publishers.
- [4] Balaceanu Constantin, Nicolau Edmond (1972). The Human Personality. A

Cybernetic Interpretation. Editura Junimea. Sahleanu Victor (1996). From the Unknown Human toward Cognitive-known Human. Editura Ramida.

- [5] Belis Mariana (1981). The Bioengineering of Adaptive and Instructive Systems (in Romanian). Editura Stiintifica si Enciclopedica. Belis Mariana, Paul Snow (2002). Comment cerner le hasard. Supinfo Press. Paris.
- [6] Bunge Mario (1977). Philosophical richness of technology. Philosophy and Social Action 2 (Editors: F. Suppe, P.D. Asquith).
- [7] Bulz Nicolae (2002) A New Fuzziness Approach Upon the Operative Actions. International Journal of Comp. Anticip. Systems, vol.13, CHAOS, 2002, p. 34-49.
- [8] DeTombe Dorien http://www.sepa.tudelft.nl/webstaf/detombe.
- [9] Draganescu Mihai http://www.racai.ro/~dragam.
- [10] Dubois Daniel (1998). Modelling of anticipatory systems with incursion and hyperincursion. Proceedings of the 15th International Congress on Cybernetics, pp. 306-311 (Editor: J. Ramaekers).
- [11] Fuller B. Richard (1969). Utopia or Oblivion: the Prospect for Humanity. Bantam Books.
- [12] Gödel Kurt (1931). Über formal unentscheidhare Sätze der Principia Mathematica und verwandter Systeme I. Monatshefte für Math. u. Physik. Bd. 38, pp. 173-198.
 - [13] Haken Hermann (1977). Synergetics. Springer-Verlag.
- [14] Lasker George (1998). Synergistic effects of local and global developments on our lives and our future. Proceedings of the 15th International Congress on Cybernetics, pp. 587-664 (Editor: J. Ramaekers).
- [15] Malitza Mircea (1998). Ten Thousand Cultures, One Single Civilization: Toward Geomodernity of the XXI Century (in Romanian). Editura Nemira.
- [16] Marcus Solomon (1974). Linguistics as a pilot science. Current Trends in Linguistics 12 (Editor: Th.A. Sebeok).
- [17] Morãrescu Jeana, Bulz Nicolae (2000). Toward extended-mathematical approach of the paradoxes and limitations (in Romanian). Academica XI 1-2 (121-122), pp.44; and the parallel manuscript from Stoica Marcel, Morãrescu Jeana.
- [18] Negoita Constantin Virgil, Ralescu Dan A. (1975). Application of Fuzzy Sets to Systems Analysis. Birkhäuser Verlag. Negoita Constantin Virgil (2003). Vagul. Editura Paralela 45, Pitesti.
- [19] Nicolescu Basarab (1996). La Transdisciplinarité. Manifeste. Editions du Rocher.
- [20] Paun Gheorghe (1995) Artificial Life: Grammatical Models. Black Sea University Press.
 - [21] Rosen Robert (1985). Anticipatory Systems. Pergamon Press.
- [22] Sanders I. (1998). Strategic Thinking and the New Science / Planning in the Midst of Chaos, Complexity, and Change. The Free Press.
- [23] Searle John (2000). The Three Gaps. From the Classical Theory of Rationality toward Consciousness Approach Analytical Philosophy Insight Conference, The New Europe College, Bucharest, May 19, 2000.
- [24] Smith Martin (1995). The prospects for machine consciousness. Proceedings of the 15th International Congress on Cybernetics, pp. 306-311 (Editor: J. Ramaekers).
- [25] Vallée Robert (1995). Cognition et Système / Essai d'Epistémo-Praxéologye. L'Interdisciplinaire / Système (s).

[26] Zadeh L.A. (1965). Fuzzy sets. Information and Control 8, 338-353 (I.E.E. Transactions).

[27] *** Papers from the CASYS'01, and '03, Fifth and Sixth International Conference on Computing Anticipatory Systems, Liege, and the direct contact with the authors:

Amoroso Richard L., Amoroso Paul J. (2003). The Fundamental Limit and Origin of Complexity in Biological Systems.

Turkiewicz Kazimierz, Turkiewicz Domenika B. Formalised Synthetic Modelling of Subject-Object Relation (2003). Feasibility and Conditions for Application of Anticipatory Systems into Changes in Social Structures (2001).

Florea Adina Magda, Kalisz Eugenia. Behaviour Anticipation Based on Beliefs, Desires and Emotions (2003). Anticipatory Attributes of Agent Behavior in MAS (2001).

Otlacan Eufrosina (2003). The Synergy and the Chaos Identified in the Constitutive Equation of a Dynamic System.

Stoica D. Marcel, Ruxanda George, Oprea Ioana G., Oprea Dan I. The Synergy of Subtle Reverberated Information Transfer (2003). Stoica D. Marcel, Hancu Daniela. Entropy Reducing Strategies for Technology Transfer (2001).

[28] *** Papers from the ICAES XVth Congres of the International Union of Anthropological and Ethnological Sciences, session 18: The transdisciplinary flow of our worlds; dedicated In Memoriam Romulus Vulcanescu – Interdisciplinary Scientist (1912-1999), Florence, and the direct contact with the authors:

Baiculescu Sorin. Anthropology and mathematics biology - researches, methods, results Belis Marianne. Is the ethical evolution of mankind positively influenced by the progress made in sciences and arts?

Bonting Sjoerd L. (2002). Chaos Theology / A Revised Creation Theology. Novalis, Saint Paul University. Ottawa.

Bulz Adriana-Carolina. The street children: a challenge for the new political culture.

Bulz Nicolae. A transdisciplinary case study: the sport.

Chirnoaga Marcel. The labyrinth; The Redeemer and the wine

Maksimovich-Binno Tiyana. Energy healing - synergy at individual and collective levels.

Pana Laura. The intelligent environment as an answer to complexity.

Stoica Marcel, Morarescu Jeana. I. The operator of act.; Bulz Nicolae. II. The (humankind) act. (A long term debate.)

Tremblay Diane-Gabrielle. Knowledge development in a context of nomadic boundaryless careers: new challenges for learning and working?; Employment security and insecurity as a determinant of health

Turkiewicz Kazimierz, Turkiewicz Domenika B. The quest for the natural sources and rules of morality; Holistic analysis of the physical nature of democracy and terrorism