

# A New Fuzziness Approach Upon the Operative Actions

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## Abstract

The members of a society (re)act according with their biological and technical spheres, with their aggregation, with their profoundness. So, a society is an implicit processor "for" relative explicit sub-processors dealing with initial information-decision-action-renewed information cycles. The scientific approach upon the transit: societal processor  $\Leftrightarrow$  sub-processors is an interdisciplinary one. The paper refers operative actions sub-processor as related with anticipatory sub-processor. This outlook generates an incursion inside the gap between reality and reflection, involving: societal knowledge term, ecological aggregate attitude as eco-consciousness, an approach toward Universal Consciousness term and connectionist corpus. The models of some paradoxes may be revised versus a new fuzziness approach both for operative and anticipatory actions.

**Keywords:** anticipation connectionism, consciousness, fuzziness, operative actions, Universal Consciousness hypothesis .

## 1 Introduction: Two Problems for a Single Rational Subject

The members of a complex-pluralistic society would think in terms of multi-group, multi-dimensional paradigms, planetary connections, openness. The **society is an implicit processor** (with its structure and its function) "for" relative explicit sub-processors and shared sub-functions. This **societal processor** is far from a deterministic one, but (re)act according a **subtle determinism**. One deep reason of a 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**.

The insight upon this gap would claim the **societal paradoxes of the non-overlapping** between "plain" structure and function (as daily social, economic, and political realities) and the huge family of micro and macro-modeling upon societal structure and function [25], [5], [15], [10], [23]. The last part of the non-overlapping does not refer a "plain" something, it refers our individual and societal reflection. So, there is a **societal gap**.

**Problem 1:** After 25 millennia of learning across the unknown environment, eliciting innate profoundness, and transmitting information among the parts of the group and to the next group of living support systems, at the beginning of the IIIrd millennium, with the discover of own humankind genome, the society is facing with its own increasing complexity. Focusing on the globalization/regionalization, the interdisciplinary approaches upon the IIIrd millennium "invite" us to reduce the societal gap. A possibility consist in a flue-aggregation of the flue concepts related to:

\*1. the connected problems of the Planet (poverty/welfare, culture, religion, ideology, science, environment);

\*2. the worth or/and worthless Knowledge Transfer as a basis for the future decisions;

\*3. the today necessary transition-net: universal ==> particular ==> planetary.

As a becoming of a solution for **Problem 1**, the Rational Subject minds upon the individual and collective flows of the cycle: \*1-\*2-\*3-\*1, according with the synergy of the increasing knowledge. The knowledge may be pointed for the targets as follow:

\* Human behavior between individuality and sociability; tensional age and educational balancing; the status-quo of social movements; the juridical profoundness;

\* The winner/loser mentality and entrepreneurial skills across transitions; social identity item;

\* The producer - consumer cycles inside globalization era; continuous education becoming; the "eliciting" of social interest group;

\* The professional profoundness of happiness - motivations / de-motivations; the emergence of social low / high quality of life; the esthetic balance of beauty / ugly;

\* Conflict and consensus (negotiations): cultural, religious, ethnic, ideology, welfare, gender, and age co-balancing;

The old medieval adage *solve et coagula* may be translated into *analyze and synthesize*, which means that finer and finer analyses performed by researchers come to be further accomplished by syntheses from others. Each delay and/or incoherence may be catastrophic. All these are eliciting **societal knowledge**. There is a virtual **societal processor**, as author of the societal knowledge. There are a lot of **sub-processors**.

One is the **anticipatory sub-processor**. It is stated the balance between the real entity and the **predictive model** [22], [7]. It would support the emergent **flue-responsibility** of the whole cyclic flow: initial information-decision-action-renewed information. It is a major part outside and inside the societal gap; it would elicit firstly the awareness within the **humankind gap** between reality and reflection.

**Problem 2:** Every systemically temporal action implies a dually temporal flow of action-reaction as interaction. Let be the contextual definition of an operative action as the representation of the interaction, and the decision making inside the interaction according with some constraints regarding :

-the **temporal interaction interval** ;

-the **efficiency of the interaction** ;

-the **openness toward knowledge (even if it has a low status)**.

As a becoming of a solution for **Problem 2**, the Rational Subject would constitute the **Sociocybernetics of the Operative Actions** as focusing -in a **fuzzy context-** upon/inside an operative decision domain (such as military and civilian emergence activities). There are some questions: Why and how to increase the natural operative skill? Which are the common features for anti-terrorism, ambulance service, police, fire extinguish? Which is the appropriate way of modeling this operative skill?

Re-recording these questions, toward both the architecture of the predictive model (Problem 1 to 2) and the current reshaping of the Sociocybernetics of Operative Actions (Problem 2 to 1), it would stand **between an understanding and an explanation** inside humankind self-"lost/hidden/unseen":

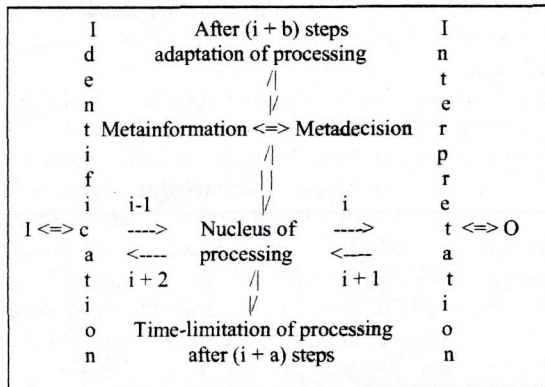
\* **Holistic capacity** (*an instant insight and correct representation of an entire context*); and

\* **Eco-consciousness** (at least, *a harmonic decision versus the contrary tendencies of all the parts*).

A better **contextual understanding** would be assured by reviewing both predictive architecture and operative interaction according with some systemically minimal properties, in order to transfer some heuristics into algorithms, and to improve some heuristics (within a deep understanding of the above mentioned / for Problem 1: **flue-aggregation of the flue concepts; flue-responsibility of the predictive model**).

According with this better understanding, accepting the terms: holistic capacity and eco-consciousness, a formal terminological extension would be:

**Information and decision** terms are describing the respective linguistic entities if there is not attained holistic capacity and eco-consciousness. If holistic capacity and eco-consciousness is attained, then the respective linguistic entities may be: **metainformation** and **metadecision**.



**Fig. 1:** The connections Input and Output (I and O) within the representation of: Anticipatory Systems, and Operative Actions

Fig. 1 presents a possible insight for an anticipatory sub-processor. The nucleus of processing would correspond with the predictive model; shown its variability.

According with Problem 2 context, a locally better **explanation** would consist from a **fuzzy approach** upon **the verb "to have"** and **to associate the belonging universal operator** (meantime, **the verb "to be"**, and **the existence universal operator, within a probabilistic context**). Fig. 3 present this explanation (this figure, being an aggregate pool for some contributions, to be presented). So, instead of a **generalized linguistic pattern** (as basic insight upon any operative skill), it would add a **fuzzy pattern** [26], [11], [18]. This locally better explanation may be an opening one; so, here, it is a minimal explanation, resulting as an emergence of Fig. 1.

## 2 The Rational Subject's Predictive and Operative Actions

The mental capacity to manage a crisis of responsibilities which may occur related with flue-aggregation of flue concepts is an important insight upon humankind - upon societal gap, upon humankind gap between reality and reflection. According -at least- with the metaphoric aspect of Problem 1 (as here it is shortly presented), the predictive model ("from" Fig. 1), and the **modeling with incursion and hyperincursion** [7] is an **insight upon humankind and upon its architecture of artifacts**.

Also, the mental capacity to manage a crisis of time inside an **interaction without collapse**, is an other **insight upon humankind and upon its architecture of artifacts**.

Thus a "**predictive (re)action**", and an "**operative (re)action**" are some inner problems of the modeling and some outlooks upon the (hypothetical) real world too [16].

*Returning and focusing upon the operative actions, step by step, increasing the number of fuzzy functions of a modeling approach*, it would produce an increasing suitability upon the operative interaction. It would be according with the linguistic variety of the verb "**to do**", by producing a model, some algorithms, and data circular processing. See, again, Fig. 3. The open dimensional fuzzy modeling of the operative actions does not "surpass" heuristics – but realize a **new equilibrium** between understanding and explanation. The classical roles of the **universal operators** (the **belonging** and the **existence**) are connected with the verbs "**to have**" and "**to be**" versus the associate role of the verb "**to do**" but not as an other insight toward an other universal operator [17]. *The role of the verb "to do" is clearly resulting from every language's frequency word dictionary. For Romanian language it is resulting [14]: to have (aux.) – level of frequency 12,665; to be – level of frequency 12,423; can – level of frequency 2,428; will – level of frequency 2,186; to have (princ.) – level of frequency 2,114; to do – level of frequency 2,084; ... ; must – level of frequency 978; ... ; to bolt (trans.) – level of frequency 4 (all these from a sample of approximate 500,000 words).*

Let be known a dual flow of substance, energy and information: the initial act of a part of the system toward an other part, and then, the reaction. Shortly, to mark this dual flow: see rel. 2. If there is a **crisis of time**, then the acting and the reflection of the human being across this dual flow are less and less appropriate. So, the mental capacity to manage a crisis of time inside an interaction without collapse, is an insight upon a stressed humankind and upon its "flue" architecture of operative artifacts. Thus is why an "**operative action**" is an inner problem of a renewed modeling and an outlook upon the (hypothetical) real world too. According with this statement the **Sociocybernetics of the Operative Actions** (as a specialized variety of Sociocybernetics) is a dual insight (focusing upon the three above mentioned constraints / for Problem 2) proper to the real systems, and challenging systemic methodology of modeling (as Fig. 1 starts it).

**Those three constrains regarding operative actions** (see Problem 2) **can be represented in a new fuzzy context as a suitable result of a more real(istic) social world inside existence - reflection connection versus a decreasing societal gap.**

At least, contemporary Axiology, Praxiology, Systemology may proceed a **fuzzy modeling approach** upon the operative actions and a systemic usage of modeling within a Sociocybernetics of the Operative Actions. A long term aim of this approach would be to continue, even to re-begin, at least to be a part of the construction of a **Contemporary Humankind Science**. Rigor, open-mindedness and tolerance are the main characteristics of the **inter and, then, trans-disciplinary vision and attitude** [19]; that is a possible next, but appropriate, step inside **Humankind Ethics**. The origin cradle of humankind had non-suspicion. Is there a present and/or a future one? The answer is inside each gap.

Then and then, the completeness and consistence of the (education; peace; welfare # non-education; war; poverty) may be fuzzy re-assured by (information\_1; decision; action; information\_2) circular flow inside an "over"-space of possibilities (of an "over"-paradoxical and – "non-limited n-space"). But this **intro-opened** [6] **space** [5], [10], [15], [16], [19], [23], [25] is – unperceived, non-reflected by the earthly Rational Subject.

There is a far possibility, but not an impossibility for: the "over"-(re)construction / inside an "over"\_1-logic (which is actually overlapped by a logic of the artificial intelligence and artificial life network-logic [3], [6], [21] and, also, is overlapped by a "poly"\_n-logic [8]. The dynamics of "classical" logical functors (operators) – has a mental artifact (construct) style regarding "*to compare, to chose and to change, to re-compare => to analyze and to synthesize inside a cycle*". Beyond all these, *there is a natural mental concept, which must be re-"discovered" and to promote a "natural" mental artifact (re-construct) style. The mental concept <=> construct adventure is the most unseen from all our earthly passage.*

Let aggregate more and more works of researchers, inside *Computing Anticipatory Systems Conferences*. Let confront the *complexity of the IIIrd millennium with our representational complexity*. This is the sense for *anticipation connectionism*; this paper, individual interdisciplinary approach. There is an implicit acknowledgement.

As a local contribution (which presents a kind of novelty), this paper holds that one possible insight of this humankind gap is to be within and across K. Gödel's, K. Arrow's, G. Păun's theorems frames [12], [1], [20]. [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**. This is an actual implicit insight toward a profound cause of the humankind gap between existence and reflection, at least toward societal gap. If – at least for K. Gödel's theorems frame [: (completeness # consistency) to be observed from an exterior (systemic) context]- the consistency is fuzzy approached [17] – according with a renewed interpretation of the verb "to have", then (*linguistic represented completeness # fuzzy represented consistency*) *is possible to be observed inside its interior (systemic) context*. See, also, Fig. 3. So, a **N - 1 / N ratio of a natural cognitive context may tend to 1**. *This attempt may indirectly decrease the societal gap.*

### 3 Decisional Equilibrium, Operative Processes and Sociocybernetics

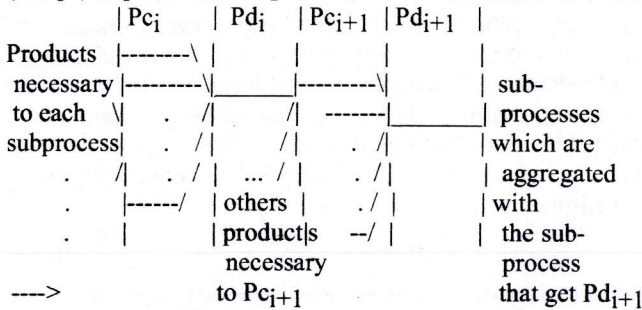
The systems (as levels of teams including human and technical resources) are self-defined by acting between two remarkable strata, each of them characterized by a self-horizon, proper utility and limitations:

- **homogeneous stratum** (characterized by a "lower" hierarchical position);
- **heterogeneous stratum** ("higher" position: the locus of classical co-ordination).

In order to represent the reality of a mixed system, there is the homogeneous task of aggregation from resources toward teams, then climbing through the structure, there is the heterogeneous task of aggregation from subsystems to objectives. These two tasks build up the frame concerning with **actions** and, respective, **information equilibrium**. There is another frame, that of **processes / sub-processes - products**, that concerns with the managerial (mainly, **decisional**) **equilibrium**.

These equilibria would act (each and aggregated [20]) as indicators of the societal gap. It is a way to be beyond a **subtle determinism** (see Table 4), **between reality and reflection**. Let construct a direct *mental tool* as a model. Let be a *process - Pr*,

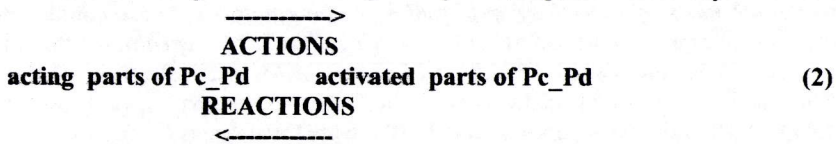
decomposed into its sub-processes, is not isolated. Its surroundings is a continuous chain (*i* steps) of processes and **products** - Pd; this chain exits inside a system (at least one).



the sense of aggregation

**A section within the continuous chain Pc\_Pd** (1) .

In order to represent the reality of a system, to present a sociocybernetic insight:



The relation 2 has a general and synthetic character. More analytical seems to be: **resources <=> teams <=> (sub)systems <=> resources / problems** (3) , whose resources are human or/and technical. A problem may be a process inside rels. 1, 2, 3; so it is resulting the functionality of the teams, the prediction as an anticipatory (re)action, the operative processes as (re)actions. **So, the mental tool is inside ourselves.**

One necessary condition for a well managed process (even anticipatory, even operative) would be that of "its" decompositions as rels. 1, 3 show (regarding its existence-parts and, also, structural parts). **So, the anticipation connectionism is "seen".**

An other condition, mostly a sufficiency one, would be to preserve the minimal continuity depicted by rel. 2 (which is regarding a reflection-part and, also, functional part). **So, the subtle determinism is not so apart from us; the societal gap is observed.**

### 3.1 An interdisciplinary insight to the Sociocybernetics of the Operative Actions

The Sociocybernetics of the Operative Actions (as a specialized variety of Cybernetics) implies the analytical view upon the three constraints from Problem 2:

- the temporal period of the acting-activated parts interaction to be as short as the interaction supports it;
- the presence of an abrupt-end (at least) ascendant becoming of the efficiency inside acting-activated parts interaction;
- the fall of the knowledge (its completeness) upon the interaction does not stop the acting-activated parts interaction (all these in the context of rels. 1, 2, 3).

A contextual comprehension (but no explanation) upon the Sociocybernetics of the Operative Actions is possible. Let be the "start" as an observation upon the social world, which becomes itself real (social) world only through **existence - reflection** connection. So, Fig. 4 will present it from a deeper informational point of view. This insight draws out more types of **mental constructs** (the "visible" peaks connected to

**mental concepts**). Let be a list: real (hypothetical) system, model (related to real system), ideal system/norms, rational subject, profound zone (temporary more not penetrable to rational subject's competencies), responsibility zone (narrow path between security and evolution of the cycle: real system  $\Leftrightarrow$  model  $\Leftrightarrow$  ideal system  $\Leftrightarrow$  rational subject  $\Leftrightarrow$  real system), ... . If it is accepted that the existence of our world is represented by a set of real entities and by a set of concept entities, then a rational subject delimitates the observable from the non-observable real and the theoretic concepts from the non-theoretic concepts. The flue/fuzziness of this possibility is proper to each of our action:

**non-observable reality  $\Leftrightarrow$  mental concepts**



**observable reality  $\Leftrightarrow$  mental constructs  $\Leftrightarrow$  non-theoretic concepts  $\Leftrightarrow$**

**$\Leftrightarrow$  theoretic concepts  $\Leftrightarrow$  notions (4) .**

Let be consider the *magellanity property* (shortly **M\***) :

**There are: some parts of non-observable real  $\Leftrightarrow$  some notions.** These connections (inside rel. 4 representation) point out –as *Magellan/1514 expedition*– the new stationary facts inside our world – *inside and between reality and reflection*. (**M\***)

The Fig. 2, 4, and (M\*) relation enrich the "research context" toward the terms "**holistic capacity**" and "**eco-consciousness**": (there are three cycles (cy)):

(5)

cy|faith cy|ignorance WSI $\Leftrightarrow$ mindng |cy  
 |hope |evidence WSI $\Leftrightarrow$ thinking |

personality  $\Leftrightarrow$ |will  $\Leftrightarrow$ |belief  $\Leftrightarrow$ WSI $\Leftrightarrow$ reasoning| $\Leftrightarrow$  **rationality  $\Leftrightarrow$  logic  $\Leftrightarrow$**   
**knowledge  $\Leftrightarrow$   $\Leftrightarrow$  language** [Note: WSI construct is depicted inside Fig. 2] .

According with rel. 4 and 5, it is resulting:

(6)

**WSI  $\Rightarrow$  {notion}1  $\Rightarrow$  (real; model; ideal/norms)  $\Rightarrow$  (mental concept/construct)  $\Rightarrow$  {notion}2,** there is cy: {notion}2  $\Rightarrow$  **responsibility  $\Rightarrow$  {notion}1** .

### 3.2. Upon some cognitive strings. Regarding thinking and fuzziness

There is a renewed approach beyond a long term structural science: structural / phenomenological modeling [6]. According to this background it is elicited Fig. 2 and 4. The emerging concepts being the string: *substance-energy-information – reflection – consciousness* (S1), and other string: *brain - reflection - mind – conscience - consciousness - philosophical tension* (S2). These strings are comprehended with more than a "systemic thinking". The following table separates four types of thinking; flue/fuzzy gap [18] term is used to show the flue zones between the classified types.

**Table 1:**

THINKING	CONSCIOUSNESS ◀ <i>COGNITIVE PROCESSES INSIDE</i> ▼		
	UNCONSCIOUSNESS		
transparent / open (light / Apollinic) ▲	SYSTEMIC	Flue/fuzzy gap	META-SYSTEMIC
	Flue/fuzzy gap	Flue/fuzzy gap	Flue/fuzzy gap
▼ <i>STRUCTURE</i> opaque / close (dark / Dionysiac)	NON-SYSTEMIC	Flue/fuzzy gap	UN-SYSTEMIC

The thinking types (as are presented in Table 1) are a result indebted to : Freud-types - for cognitive process; and to: Wiener-black/white boxes, for structural approach of the thinking sphere. Table 1 is a necessary background for the start-idea of "gaps".

Only systemic and non-systemic types of thinking will be considered as the set of concepts to be presented, and are full-related with rels. 1-6 and with the content of Fig 1.

The necessary systemic thinking to attain (S1), and the aim for the attaining (S2), mainly through non-systemic thinking, help to elicit other strings toward "gaps":

*(S11): sequential approach [4]; myth-thinker; "Pure Rationality" [6]; right hemisphere of the brain; quasi-qualitative processing [16]; discoveries; "Person"; Edmund Husserl's intentionality-attempt "versus" Descartes and Kant [6]; intro- openness [6];.... and*

*(S12): global approach [4]; magic-thinker; "Practical Rationality" [25]; left hemisphere of the brain; quasi-quantitative processing [3]; inventions; "Individual being"; Georg W.F. Hegel's dialectics-attempt "versus" Leibniz and Kant [4]; openness [2]; ... .*

The systemic and non-systemic types of thinking are to be analyzed according to rel. 5, (S11) and (S12) as follows:

Table 2:

COGNITIVE PROCESSES	LOGICS	HERMENEUTICS
(S11)	ANALYSIS	ANALYSIS
(S12)	ANALYSIS	SYNTHESIS

**It is resulting the dominance of either analysis or synthesis. These findings are to be connected with rels. 4-6. These would explain the possible gap between researchers.**

The two/three zones as "Flue/fuzzy gaps" between the four types of thinking, and meta and un-systemic thinking areas are not comprehended here. To denominate as Profound Zone their "position" (see Fig. 2). Evidently, it is a "reduction" of a holistic capacity.

### 3.3 Responsibility, its (meta)indicator and cognitive modes

According with rel. 6, the **responsibility** is a (long term) projection of an overall goal concerning entire system connectives with human and technical resources (both inside and outside the system). So a meta\_indicator would be proper to denominate this "inter and trans bordering" feature of the responsibility for a system (S) :  $m_{Eq_S}$  to be its denomination. The couple ( $m_{Eq_S}$ ,  $Eq_S$ ) is not similarly seen according to the four varieties of the types of thinking, and is interpreted (as systemic thinking varieties would do). Table 3 presents all these. There is a start-idea from a string of works as [16].

Each *variety (V) of systemic thinking* -inside a system- is associated with a *systemic approach, or assumption (discursive, intuitive / reflexive, empirical)*, as it follows : *analytic, holistic, experimental, experiential* .

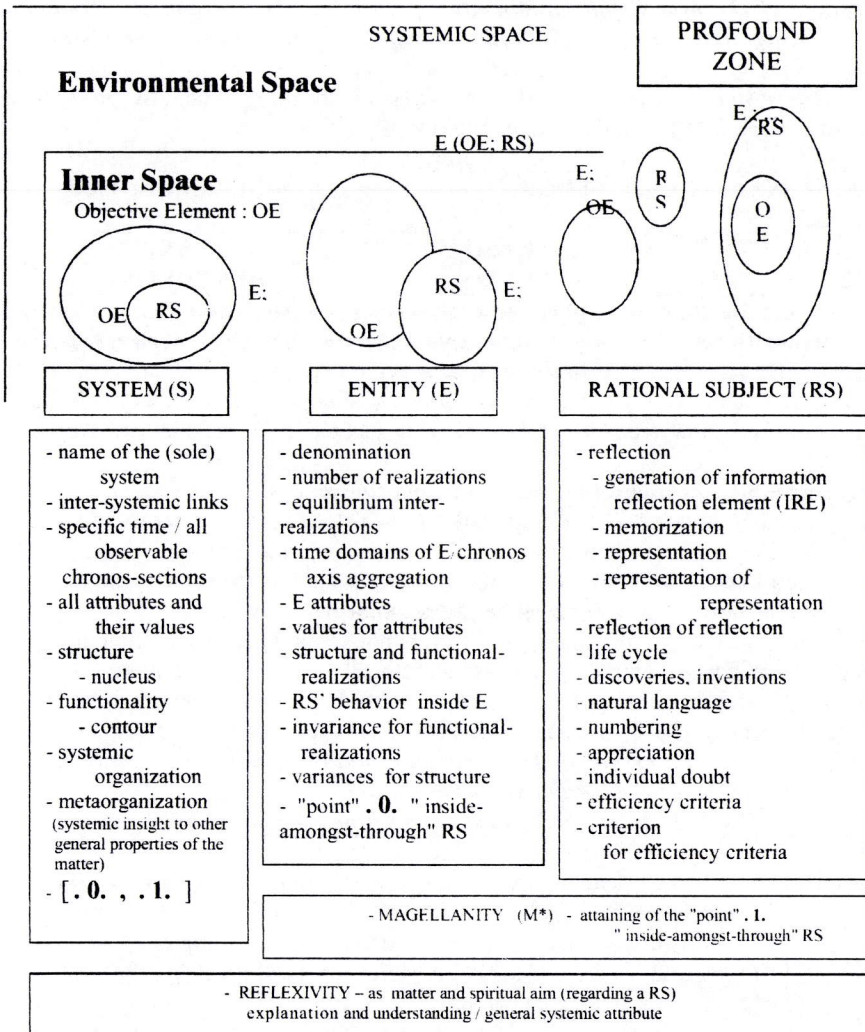
Table 3: *The varieties of systemic thinking had famous founders*

Spinoza/ Russell	The metaequilibrium of our system is an external matter for us. God's features exist according to all possibilities. We can reveal it logically.	(V_Spinoza; Russell)
Goethe	Our nature (the major system) is simple. "The world could not last if it were not so simple" Its stability is morphogenetic assured.	(V_Goethe)



Leibniz	All possibilities exists. There is confidence in the local equilibrium, acquired by the construction induced from the starting locus to an appropriate outside, etc.	(V Leibniz)
Cusanus	Any coincidence of previous oppositions may occurs inside God. Any couple is to be preserved through our consciousness. The world is just a ludic act (a game).	(V Cusanus)

Also each variety of systemic thinking (associated with a cognitive mode, and a kind of determinism) is promoting an understanding upon the Reality (as both Existence and Reflection). Let present the figurative definition for "system" and "Rational Subject", dependent by the "objective element". There is elicited the "entity" definition. An "entity support any position / relation between a system and a Rational Subject :



- (ORGANIZATION) EFFICIENCY; CONSCIOUSNESS of a RS <=> ENTITY <=> SYSTEM

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**WORLD OF SYSTEMHOOD AND INDIVIDUALHOOD (WSI)**

**Fig. 2: Rational Subject's World**

The difficulties to raise from the status of an Objective Element toward that of a Rational Subject are interpreted "inside" [ . 0 . , . 1 . ]. It is proposed three thresholds: magellanity, reflexivity, efficiency. The challenge is to extend the systemic meaning (so, it is attained a WSI) and this meaning to be "part" of our consciousness.

**Table 4: The effects of the Rational Subject's varieties of systemic thinking**  
 There are the associations of the Cognitive Modes [16], Varieties of Systemic Thinking, the Types of Determinism, (meta)Equilibrium status

<b>COGNITIVE ▼ MODES</b>	▶ <b>DISCURSIVE</b>	▶ <b>INTUITIVE</b>
<div style="border: 1px solid black; width: 100px; height: 80px; margin-bottom: 5px;"></div> ▼ <b>REFLEXIVE</b>	<b>ANALYTIC</b>  V_Spinoza; Russell m_Eq_Sm as an EXTERN  <i>PROBABILISTIC DETERMINISM</i>	<b>HOLISTIC</b>  V_Goethe m_Eq_SM = Eq_SM  <i>STRUCTURAL / SELECTIVE DETERMINISM</i>
▼ <b>EMPIRICAL</b>	V_Leibniz ∄ m_Eq_SM  <b>EXPERIMENTAL</b>	<i>HEURISTICS / MIXT DETERMINISM</i>  V_Cusanus ( Eq_SM ; m_Eq_SM )  <b>EXPERIENTIAL</b>

*The terminal results is to associate the holistic cognitive mode with holistic capacity (and, secondary, the other three modes toward eco-consciousness deepness).*

#### 4. Some Lines About Rational Subject and its Fuzzy "Tendency"

This paper presents this insight leaned by the following Fig. 3 and Table 5. The content of the table denominates the systemic entities versus their systemic properties [9].

**Table 5: Tabular form for WSI**

Properties: ► Denominations: ▼	synergy of parts	non- entropy	ascending efficiency
1. integron	*	*	*
2. metatron	0	*	*
3. net	*	0	*
4. Internetron	* ==> 0	0	"0 <== *"
5. transitron	*	*	0
... individity	0	0	0

There are ten steps (\*1-**\*10**) as details about the content of Fig. 3:

**\*1 (non)systemic entities:** integron ... metatron ... net ... Internetron ... transitron ... individity; see the respective numbers as shapes from Fig. 3: 1. ; 2. ; 3. ; 4. ; 5. ; ... ;

**\*2 the triad of verbs: to do / to be / to have** versus the triad of systemic properties: *synergy / non-entropy / ascending efficiency*;

**\*3 the triad completeness / consistency / information1 – decision – action – information2** => cycle (IDAI);

**\*4 the triadic properties:** self-reflexivity / efficiency / magellanity (see Fig. 2);

**\*5 to be -->** probabilistic treatment across universal operator  $\exists$ . The single dimensioned insight upon completeness and self-reflection;

**\*6 to have -->** fuzziness approach (apart and beyond the flue primary insight) associated with the universal operator  $\in$  and fuzziness start-insight on [0; 1] definition-domain of the characteristic function of a fuzzy system. The double dimensioned insight upon consistency and, respective, intro-opened [6] entities (open toward itself) associated with efficiency (consistency) and, respective, ascending efficiency (intro-openness) on [1; 2] definition-domain of the characteristic function of a fuzzy system. The points of intersections inside this double characteristic are here presented, only, as numeric conjectures:  $f_1 = \pi/2$ ,  $f_2 = 8/13$  golden section,  $f_3 = \sqrt{\pi}$ ; depending by the other "future" approaches inside the following definition-domains [2; 3], [3; 4], [4; 5], [5; 6], ... , their possible multiple characteristic function will be elicit – promoting gaps decreasing;

**7. to do** versus synergy, *information\_1-decision-action-information\_2* cycle (IDAI) (and magellanity property, rel. M\*); but not as an universal operators;

**\*8.** the ascending level of synergy and non-entropy (see Table 4) is a necessary condition toward a *holistic capacity*: thus integron and –sometime- transitron present;

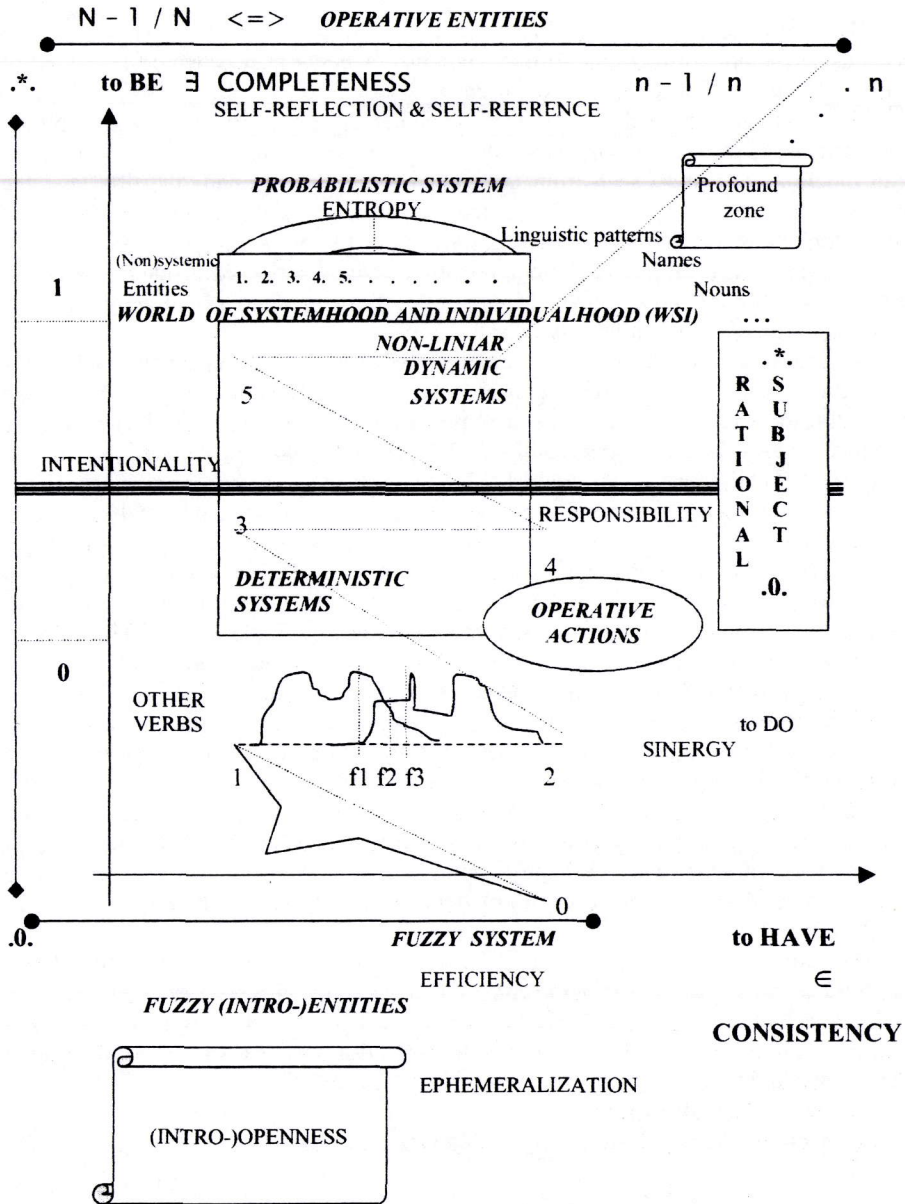
**\*9.** the ascending level of efficiency (better and better products with lower an lower resources) and non-entropy (see Table 4) is a sufficiency condition toward *eco-consciousness*: thus integron and –sometime- metatron present;

**\* 10.** a necessary condition to realize both holistic capacity and eco-consciousness is to be inside an integron; there are not other entities – to be depicted across Table 4. So, a *minimal condition for predictive model and for the procedures of the Sociocybernetics of Operative Actions is to "isolate" an integron –as a nucleus- inside the systemic context* (which requires the anticipation or/and the emergency action). The overlapping of the integron with the entire systemic context is only and only a favorable case, at least.

**Proposition I** N – 1 properties from a self-reflected and efficiently IDAI (cycled and problematic) context is supporting an extension to N properties if and only if a

magellanity-threshold of knowledge is attained and a new fuzziness procedure can reduce the existence-reflection gap.

All these draw up the conclusion that an **universal knowledge "tendency"** is possible to be tempered by a **fuzzy (-planetary) "tendency"** |beside **probabilistic (-individual) co-"tendency"**. Are there : a low probability but not an equivalent low possibility that all **these three tendencies to be a duplex connection between Rational Subject and Universal Consciousness?**



**Fig. 3:** The locus of a New Fuzzy Approach upon Operative Entities  
Is this, also, the locus of anticipatory systems? This paper presents some positive items.

### 5 Is "Rational Subject - Universal Consciousness" a Relation?

The intuitive answers may be: "We do not know." or "Not. The Universal Consciousness is not a direct pole of our relations." A better answer would be a kind of question: "Which type of relation is supposed?"

The humankind had dealt with anticipatory events and/or with solving tempestuous tasks from the beginning of the hard interaction with the Nature. [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 fairy tale: "Go there – I don't know where, bring me something – I don't know what".

The new fuzziness approach upon operative actions, 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 reminiscent fairy tale for this paper].

A really similar fashion for anticipatory systems is considered. Why this consideration (firstly as a belief)? [Apart of the cases as: graphical extrapolation of time series and, respective, as repetitive operative problems (for the same team).] That because –especially for *very hard problems; more difficult than Problem 1 and 2 (from part 1 of this paper)*. To mark these as: **Problem 1\***. The successful end task is supported not only by luck, training (pre-internalization of similarly supposed cases), personal decisional abilities, superior IT parameters of the team. There is a sustainable and quite daily linguistic well expressed **holistic capacity** toward the anticipation or operative problem within the respective team. This holistic capacity is supported or not by the decider or IT team. It is like a resonant fact for the **Goethe's insight**: see Table 3 and 4. This holistic approach is related with as much knowledge as possible inside an 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), and as those pretended by the influent members of a staff to be ever seen as useful by the chief (related with ... operative tasks).

In the same way, that of a constructed holistic capacity, any IT project dedicated to e-Commerce, e-Economy, e-Administration can not deny the parallel processing of analytical and synthetic tasks. A happy community is that one which is re-according itself as a whole (despite of the necessary modern specialization and dividing of the entire societal labor).

The content of the part 1-4 justify the term of this paper **holistic capacity**. Table 4 may produce the conjecture upon the complementary status of **eco-consciousness**.

Let return toward Table 2 – Rational Subject /figurative definition. To focus and extend the meaning of the **reflection upon the reflection of the Rational Subject** upon the term **consciousness**.

So, let be the understanding:

**Consciousness <== Reflection\_2 upon reflection\_1** (7)

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.

There is a constant will to attain an understanding / explanation upon human consciousness [13], [24], in spite of rare capabilities / performances upon tasks as rel. 7 .

### 5.1 Nomen-Phenomenon intercourse

Albeit the English non-preserving of the Latin form for the word "name": "*nomen*" (but there is a strange set of linguistic traces: *nominee*, *nomination*, *nomenclature*, *nom de plume*) the Latin "*phaenomenon*" word is preserved. The phenomenon / phenomena is (at least) linguistic supported by the philosophical denomination "phenomenalism". It is the theory of radical **empiricism** [English great philosophers Locke, Berkeley, Hume concept: \* There are no *a priori* truth about the world. (The truth is only processed by logical and linguistic rule.) \* We have no *innate* ideas, all ideas are derived from experience. Through Descartes, the **rationalism** concept: \* The factual truth about the Universe can be obtained by pure reasoning from *self-evident premises*, not themselves empirical.] that human knowledge is limited on our sense, impressions, phenomena. Edmund Husserl (1859–1938) founded the **Phenomenology** [6]. As the detailed description and comparison of mental states and processes, "*pure experience*" is without reference to causes or possible relation to things in the world; the *physical object* is make up from "*sense data*", not from all knowledge. The phenomenon has *no clear knowable reality* behind itself.

The structural science of a deep rationalist background is contemporary extended as structural-phenomenological science (integrative science) [6]. But all these are not quite a renewed dialog across the centuries.

In these context, it may be considered that an object is a remarkable fact or person, these objects and facts are realizing within us –as Rational Subject- entities. The linguistic occurrences of entities are entities, also.

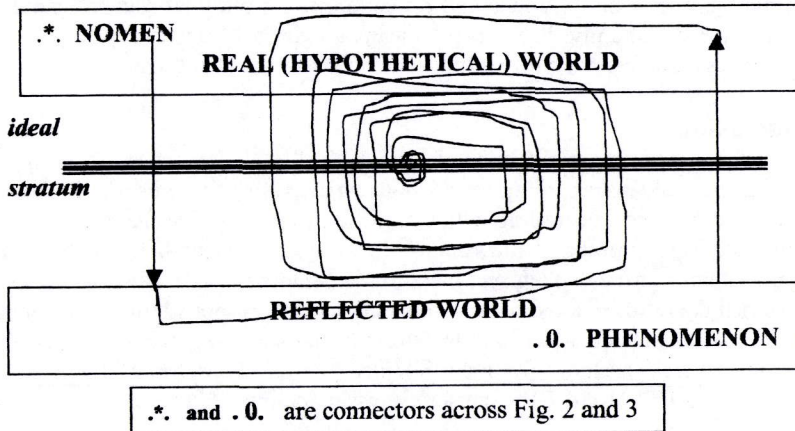


Fig. 4: Locus of Anticipatory Systems?

The emergence of this attempt is the belief that **Existence-Reflection balance** is more important, more vital than the materialistic or idealistic philosophical support, and

their consequences. Also, there is the belief that **Nomen-Phenomenon intercourse** is more vital than empiricism or rationalism are. The above mentioned balance and intercourse draw us up-inside an *ideal stratum*, which may be known as a background for both anticipatory and operative tasks. It may be the virtual locus for the *(intro-)openness*.

## 5.2 Universal Consciousness hypothesis, and the varieties of thinking

*If the societal gap is minimal, and also the existence-reflection balance, let be an external Rational Subject to reflect all these. According to rel.7 he/she may present a consciousness. Let continue this process –independent of space, time and other objective causes- till the ultimate Rational Subject is involved. The respective rel.7 would promote Universal Consciousness.* (8)

The presenting hypothesis, here, claim two current objectives:

\* *To introduce the possibility of a mental construct –as model- for Anticipatory Systems and Operative Actions: the Universal Consciousness hypothesis. To find a coherent support is the initial requirement. The absence of it would be useful for the initial trend.*

\* *To conclude, here (within the personal criticism upon the here presented hypothesis), upon the complexity of human reflection enrolling two human triad : T1(faith; hope; will), T2(prejudice; surprise; evidence). The T1 is connected with this paper trend till rel.8; T2 is connected with this paper trend till rel.7. Any superior numbered/marked T2\* may be assigned as connected with an other rel. of this paper – at least with rel.1.*

**Proposition 2** *If, and only if, a Rational Subject can observe the co-existence of T1 and T2\* (inside the managed entity), than a necessary condition to attain the observable tasks for Problem 1\* may be acted.*

**Consequence 1** *There are more than one variety of systemic thinking related to a system, [See Table 4 and the description of the four varieties of systemic thinking.] more observable task-varieties for Problem 1\* .*

**Consequence 2** *The relation "Rational Subject – Universal Consciousness" may be putted in some acts, if, and only if, the local (cognitive) sub-processors are acting according with a minimal gap between existence and reflection, and a minimal societal gap exist inside the respective community. Problem 1\* means a maximal holistic capacity – versus eco-consciousness; the responsibility of the societal processor is not overflow.*

## 6 Conclusion

It is proposed a new insight upon the ratio  $N - 1 / N$  properties, according with the following main ideas (regarding nearly both Anticipatory Systems and Sociocybernetics of Operative Actions – according with a minimization of the flue/fuzzy societal gap):

\* A possible insight: probabilistic system - fuzzy system - (intro-)open entity - artifacts;

\* (Non)systemic entities: integron...metatron-net-Internetrone-transitron...individicity;

\* A start-linkage-idea: anticipation connectionism / responsibility / metaequilibrium|metainformation|metadecision / subtle determinism / societal gap|reality – reflection gap /

\* A cognitive task: system – Rational Subject – entity – varieties of systemic thinking – Problem 1\* triad T1 | triad T2\* - consciousness modeling – Universal Consciousness.

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