SECOND-ORDER CYBERNETICS, SEMIOTICS AND THE ART

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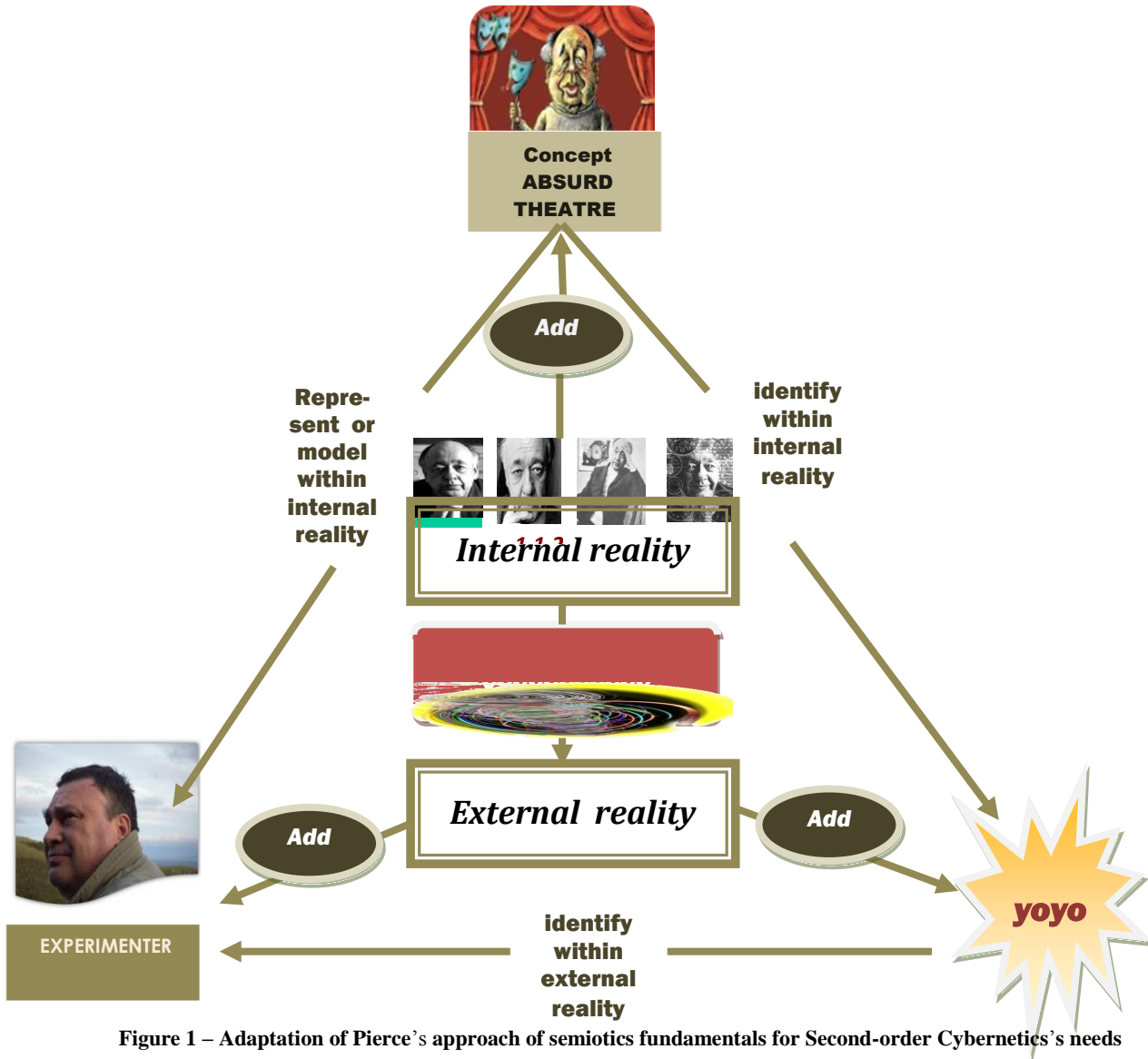The following figure illustrates the way we proceed to show the methodology used in our examples.

Figure 1 – Adaptation of Pierce's **approach of semiotics fundamentals for Second-order Cybernetics's needs**

The figure 1 is adapted from ASK Metafilter, robustai.net/mentography/semiosis 2.ipg. for our needs.

ABSTRACT

We take into consideration the concept of second order cybernetics and Pierce's approach of semiotics fundamentals. I am also an observer, experimenter and mental interpreter of metasigns given to the audience by Eugene Ionesco's absurd theatre. The interpreting of signs meaning is determinate by the context. From Semiotics 'point of view, the objects I'm studying (The Love Poem Lucifer or Evening Star, the short play *Foursome* and the most known, *The Chairs*) gives me a lot of information about differences or NOT between actors, positive and negative interactions and become knowledge when I see them as signs. Second order cybernetics brings to the semiotics the idea of closure of structural coupling, interpretation and language [Soren, Cybersemiotics, 2008].

Them, the objects chosen are, for EXPERIMENTER, the YOYO in figure 1, and signifies the OBJECT of recursion.

Boje [Boje, David, 2005] redefines antenarrative communication more holistically as an enactive phenomenon, and makes connections between varieties of disciplines in order to find out how antenarratives help us understand communication in the world. Instead of the finite event of producing an artifact, **betting** is a process and an end in itself, through which the practitioners might gain self-awareness.

By synthesizing enactive-thinking in virtual space and the practice of communicating we appeal for valuable insights into the creative mind, challenging scholars and practitioners alike.

Drawing contributions as above ideograms are useful for practicing cyberneticians, statisticians, researchers and academics, Informational Statistics applications [Mihaita, 2010] explores the ways in which liberal arts writers seek to involve, create and engage with new and diverse audiences from beginners encountering and participating in the work unexpectedly, to professionals from other disciplines and members of particular communities.

Taking into consideration the Second-order Cybernetics's paradigm, any playwriter or painter is an autopoietic system (auto=self, poietic = creation). He is an Observer of his environment, in my case study he could be Eugène Ionesco and Samuel Beckett or Manet in real Crises situations.

As Experimenter he is writing short plays as *Foursome* or plays as *Chairs* or *Waiting for Godot* or paint many times the nearly the same Manet's *Execution of Maximilian*.

As Interpretants of the above works they give answers to questions and sometimes surprise with them. Could be something hidden behind what we see, hear or read? Could be some coding and quantitative methods and measurements reveal something new or an palimpsest as a negative reflection (*Chairs* versus *Foursome*) of Eugène Ionesco's Absurd Theatre?

Keywords — Narrative, Antenarrative, Non-communication, Informational Statistics, Hidden, false, Illusory or Real interacting Relationships.

INTRODUCTION

Knowing that the aim of Informational Research (IR acronym) is to advocate, promote and provide a recognized methodology for current and emerging IR, including research into narratives, antenarratives, communication processes, methods, concepts, aesthetics and style. Through exemplary scholarly research, future round tables, seminars and workshops will present IR as a vital and viable discipline that explores information techniques, questions and develops cultural and social practices, and interrogates and affirms philosophical and human values.

In figure 2, as OBSERVERS (coded Obs.), we absorb data, concepts, and signs in Pierce's philosophy of Firstness and as inputs (coded I) in the cybernetics approach.

Data and signs are finding and signaled in huge numbers from external visible and invisible environment coded N+S from noises and signals or signs. In another illustrated case [Mihaita,

2010] signals came from the environment as works of the great Poet Eminescu, Eugene Ionesco's Absurd Theatre, or/and we used David Boje antenarrative approaches as bets concerning several paintings with the same subject of the Painter Manet [5].

When we chose the OBJECT of study, following the same Peirce's concept of Secondness, we are looking for distinction between out OBJECT as a viable system in his environment meaning autopoiesis. The distinction we interpret as information comes from differences, constraints and interactions.
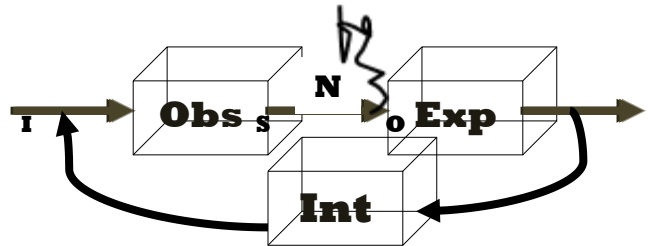

Figure 2. Cybernetics approach

As OBJECTS, we took the longest Love Poem *Luceafarul* (translated as Lucifer or Evening Star) of Eminescu, short play *Foursome* of Eugene Ionesco's Absurd Theatre and Manet's paintings in David Boje's interpretation and define the BET's hypothesis. These are at least for us, metasystems which we observe and study and they are autopoietic systems, because the person who creates the OBJECTS cannot be separated from their creation and we, as observers, are in this metasystem.

As EXPERIMENTERS (coded Exp.), we used Shannon's Information Theory and Onicescu's Informational Statistics. For simplicity and clarity but also for Onicescu' life philosophy we prefer the concept of informational energy as a measure and in the same time a very useful metaphor. The concept, combined with Wiener's cybernetics connects to thermodynamics and redefines information as negentropy.

Also, as experimenters we interpret this autopoietic metasystem in what Brier [1] challenged us with the new term of signgame in Peirce's Thirdness concept. Why doing that? Because global system described with state vectors (vectors structures) give very little information normally measured with statistical tools (average and variances).

Important as experimental data was in case studies the number of signs as presence or actions described into distiches or scriptlines and/or narrative stories. As INTERPRETANTS, we done in this MegaState, with the same Pierce's concept of Thirdness, mediation between hypothesis as BETS (in David Boje's antenarrative concept), new developments concerning system's realization of itself, its subjectivity, self-value and semiosis.

Even in an era which has seen many forms of artistic creation becoming digitized, the practice of sensing, in the traditional sense, has remained constant. However many discussions about the relationship between sensing and virtual perceiving rely on discipline-dependent distinctions to discuss the activity's reality function.

Boje redefines antenarrative communication more holistically as an enactive phenomenon, and makes connections between a variety of disciplines in order to find out how antenarratives help us understand communication in the world. Instead of the finite event of producing an artifact, **betting** is a process and an end in itself, through which the practitioners might gain self-awareness. By synthesizing enactive-thinking in virtual space and the practice of communicating we appeal for valuable insights into the creative mind, challenging scholars and practitioners alike.

The betting process here is made by me. Step by step, in following examples, The Observer is ME and The Experimenter is Myself and also I am The Interpreter.

ME as an Observer feedbefore data, observations, facts, concepts, ideas. MYSELF as an Experimenter feedforward wishes and bets or statistical hypothesis and I as Interpreter feedback decision and knowledge.

Myself as **Observer** chose playwrights, painters and study they in them Second World War environment or Napoleon III Empire. Also I look for narratives and opinion about themselves or others (reflexivity).

As **Experimenter** I used System's Theory, negentropy, informational correlation coefficients and find out state vectors' structure couplings, positive and negative interactions over the plays or a vast mass of antenarratives. As Experimenter I bet on statistical Hypothesis occurrences.

As **Interpretant** in sense of Semiotics I look for meaning and found out some logic in the Absurd Theatre. Instead, the theme of the play *Foursome* we find out using Informational Statistics and other quantitative methods, that contrary as in *The Chairs*, on *Foursome* the actors make the Ionesco's concrete void, the visible invisible, developing in our interpretation a negative palimpsest of *Chairs*. We believe that they (players) lives only in **ONE**'s imagination and not feel the **Grand Illusion**.

INTERDISCIPLINARITY IN INTERSTITIUM WITH SCIENCE 2 METHODOLOGIES

Following Saussure's interest in a structural analysis and in Peirce's methods for analysis of text, this paper offers a new methodology capable of exploring both normal and post-normal science contexts through their respective narrative and antenarrative texts. In particular, it does this through the examination of narratives and antenarratives. The methodology adopts fuzzy cybernetic modeling and Informational Statistics, applied to antenarrative fictional texts like Manet's Execution of Maximilian. Following [Boje, 2], sociocultural life and the arts are reflective of each other. By combining the planning of statistical experiments with Informational Statistics the creation of a fuzzy membership function is possible that offers a new

approach for antenarrative analysis that is independent of initial conditions. This approach also allows new arguments to be obtained by measuring the informational gains to be discussed in appear in art, literature or conversation.

Taking into consideration the SECOND-ORDER CYBERNETICS's paradigm, any playwriter or painter is an autopoietic system . He is an **Observer** of his environment.

As **Experimenter**, for example, Eugène Ionesco is writing short plays as *Foursome* or plays as *Chairs.*

As **Interpretant** he give answers to questions and sometimes surprise with them. Could be something hidden behind what we see, hear or read? Could be some coding and quantitative methods and measurements reveal something new or an palimpsest as a negative reflection (*Chairs* versus *Foursome*) of Eugène Ionesco's Absurd Theatre?

We take into consideration the concept of SECOND ORDER CYBERNETICS and Pierce's approach of SEMIOTICS FUNDAMENTALS.

I am also an OBSERVER, EXPERIMENTER and MENTAL INTERPRETER of **metasigns** given by Eugene Ionesco's Absurd theatre. The interpreting of signs meaning is determinate by the context. The objects I'm studying (The short play *Foursome* and *The Chairs*) give me a lot of differences between actors, interactions and become information when I see them as signs.

SECOND ORDER CYBERNETICS brings to the semiotics the idea of closure of structural coupling, interpretation and language [Soren, *Cybersemiotics*]. As above, the **YOYO** in figure 1 signify the **OBJECT** of recursion and the repetition in combining elements of the OBJECT in study.

In analyzing Foursome we define several state's structure. Beginning with actors-performers communication to each other or simply their presence on stage, or reducing only for two alternatives.

We need to use dichotomy a procedure very used in Semiotics for various reasons. First at all, because we explained relationships of zero, first and second order by statistical experimental plans as factorial experiments with three factors /variables /attributes / characteristics at two levels and one replication.

Second reason was that we was not satisfied with finding strong or feeble relationships but we was looking for hidden, spurious or false ones. The third variable, Stafford Beer teach us, could be of control only, or intervening variable.

So we measure the informational power of relationships with INFORMATIONAL ENERGIES (NEG-ENTROPIES), correlation and informational correlation's coefficients. By some methodologies we find out the nature of relationships and can reduce variability to essential variables. From second-order cybernetics point of view it was more useful to take environmental variety in consideration.

Eugène Ionesco's ability as Absurd Theatre's father was his performance to adapt and absorbs environmental variety. His short plays could be understood better as viable subsystems. The Play is a live organism, reproducing every times with a lot of different meanings. People from the auditorium usually said I need three days to understand something or I need to see it twice to understand something.

The goal of *Foursome's* analysis was to verify what struck us initially when codifying different replicas (script lines) and looking for relationships between play's characters because of the repetitive YES/NO attitude. We applied recursion as a necessary principle to reduce complexity and ambiguity of interpretations. Using different recursions we try to find what Stafford Beer in "Platform for Change" understand as REQUISITE VARIETY. (see subtle information from ideograms and channel capacity We illustrated as YOYO our study's object exactly from this reason, meaning that it is given a direction, speed and when is coming back goes again for a new task.

In the short play Foursome everything started with simple and conditioned contingency tables. On rows and columns existed several states. Using Informational Statistics we have measured the influences of one behavior structure over the other and we obtain informational gains given by one detailed structure over several ones. Then we use only dichotomies for experimental planning with factors at two levels and replication and Informational Statistics for identifying the nature of correlations between them In studying and interpreting the results, we like to accept the logic of unfolding changes.

The first recursion is based on coding, arithmetic and EXCEL application with pivot tables, the next on information technology and the subsequent is based on analytical tools as Lagrange or finance portfolios. We used also classical punishment and reward techniques making sure that mentioned unfolding, which surely reduces the internal variety will also provide the context for best use of the internal variety to generate value *Foursome* as a play organization. These recursions was used for variety reduction in for our surprise the story without apparent communication transform in one possible alternative created from the Eugène Ionesco's sub consciousness.

As an **Observer** of Poetry World in general and of Romanian Geniuses Eminescu, I am aware that there are billions relations between variables, composed functions, and a composing of functions. The scientist trying to understand these phenomena has to try first to understand the poetic of Eminescu's world. He, as Petru Cretia is cited in [Mihaita, 6] is *"having a personal, secret world of his own, for a solitaire experience. Full of shadows, amazing piercing and strange stagnations, full of insisting and rebornings who's insides laws lets itself rethought sometimes. A labyrinth of mirages, echoes and mirrors, of forgiving of massive constructions and ruins on which they left their prints and moments and the time of this world and the other world."*

As an Experimenter, I tackle with the Legend of the Evening Star or Lucifer (in the Poem "**Luceafarul**") build by a story about a young princess who prayed to the evening star each night (feed-before information). If we still judge from outside, statistically, both reactions, we get to a fundamental point, experimentally, and that is trying to detect a signal in a noisy environment. **The whispers of nature, sea, forest, winds have to be differentiating from the lovers' whispers.**

The decision maker wishes to find out if the results obtained with an experimental treatment are so much different of what is going on in its absence to decide if the experimental variable is efficient. Usually we trust the data if the independent variables produce expected reactions. In this case we recognized as recursion figure 3 where the signals, in our case Catalina whispering, is treated by Lucifer as input as he experience by changing himself (feedback), interpret, make mistakes (feedforward expectations, dreams), receive information or requests(coded I, be mortal as myself said Catalina) or critics from Demiurge (C from critics) and deliver knowledge (K).
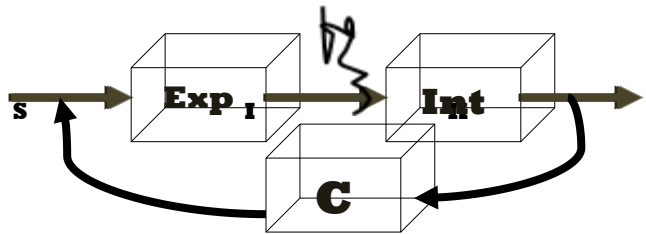

Figure 3. Signal as input, knowledge as output.

He shall decide this fact by comparing the level of *noise* variation, by analyzing the data in and without the presence of the treatment. We have to make a difference between the background noise and the one made when the *signal* is present.

We must make a distinction between the combination of **noise + signal** and the noise itself asking ourselves about the probability of the event to take place if it is only noise. Hyperion heard a sure level of noise coming from Earth. Some noises or whispers could have been a call. The whispers as *noise* were above the background noise and could have been calls.

We can imagine what could have happened when Cătălina would have said *you are my love.* Then with great chances, the event *love* would have taken place, but the presumed error of type II: once a mortal, the relationship accepted by the easy Cătălina, to be temporary.

Technically, we are interested by an algebraic report between the heard whispers and the natural whispers. If the whispers are mistaken or they are at the same level with the usual noise, then the algebraic report is 1. If the noise is different than the usual, the report is bigger, in which case, if it goes above some level of knowledge the reaction takes place – the appearance of the beautiful Lucifer.

For the expert there is a relation defined as **observation / the estimated error**. As a result we can look at the treatment and the control conditions that are opposite to the differences that are notable without treatment.

If the **(signal + noise) / noise** ratio is sufficiently large beyond the **noise/noise** ratio, then we can conclude that there is that something called a signal: in our case this is the **whispers/noise** ratio. The evening star falls in love with her and is willing to give up his immortality (feedback reaction), fly thru universe looking for Demiurge to ask for his mortality (feedforeward) who deny the mortality's request (feedback) and Lucifer realizes that the pure love he has for the young girl cannot be sustained in the mortal world (feedback)".

Appears on Web that The Poem can be simply described (for the today's YouTube generation...) as a combination between "Gone with the Wind" (which is a romantic drama), "Star Trek" (because of the Lucifer' flight thru universe looking for Demiurge that contains science fiction entertainment) and "Love Story" (because the world record judges said the Poem is one of the most romantic poems and it also ends in a drama) - all together, which means it is a romantic poem but also a third millennium modern poem.

CONCLUSION

EVENING STAR POEM is one very good example of narration starting with beginning, content, end. Contrary we tackled with antenarrative short plays of the Absurd Theatre and find probable hidden narratives. In the theme of the play *Foursome* we find out using Informational Statistics and other quantitative methods, that contrary as in *The Chairs*, on *Foursome* the actors make the Ionesco's concrete void, the visible invisible non-communication but understanding.

Again, in this article we apply interstitial methodologies and obtained results that are very promising for analyzing any communication, narrated or antenarrated that has a form of a conversation and make statistics useful in dealing with conversation analysis. Using it to map out other opinions, or real life situations, real life reports, other pieces of literature as Poetry or Absurd Theatre. Just to see what outcomes one gets.

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