LABORATORY PARAPERCEPTIOLOGICAL MODEL

Guilherme Kunz

ABSTRACT. This article aims to discuss the paradigmatic interference on observation and analysis of extrasensory phenomena in laboratory experiments using cybernetic modeling. It is proposed that the duality of cosmos is based on the principle of maximization of energy entropy and minimization of informational entropy of the consciousness, justifying laboratory parapsychic self-experimentation and avoiding perceptive distortions about extraphysical phenomena.
Key-words: paraphenoma; laboratorial experimentation; modelling; entropy.

INTRODUCTION

Accounts of sensations beyond the 5 physical (extrasensory) senses have been registered in the course of human history, in different civilizations, and interpreted under the influence of multiple cultures and contexts in the universe of "common sense". More recently, a qualitative approach was developed in the 19th century by Metapsychics and in the 20th century Parapsychology sought to treat extrasensory knowledge quantitatively, based on statistics, such as Joseph Rhine`s work (1895-1980) at Duke University (USA). Among the phenomena investigated by Parapsychology are:

1. **Clairvoyance:** the obtaining of visual information of remote events through means still unknown by modern science.
2. **Telekinesis:** influence on matter exclusively through the willpower.
3. **Telepathy:** transfer of information, emotions and thought among individuals.

The main criticism to the study of such skills is in the inability to demonstrate conclusive evidence (repeatability and reproducibility) of extrasensory phenomena. According to Parapsychology, these "paranormal" abilities could be "scientifically" proven by statistical evidence, so excluding the "chance" factor. However, Andrade (1967) considers the verification of extrasensory phenomena to be complex due to 5 factors:

1. Unexpected and unpredictable character.
2. Difficulty of repetition.

3. Ignorance regarding the operating mechanism of the phenomena.
4. Uncertainty and imprecision of the testimony.
5. Rarity and fugacity of the observable occurrence.

This article aims to discuss the variables involved in the research of extrasensory phenomena, evaluate the possible sources of error in conducting laboratory research on Paraperceptiology (the study of extrasensory phenomena) and propose a less contaminated approach.

There is no intention to convince, but to discuss the different approaches to the studies of Paraperceptiology, and since it is still a subject little discussed, it aims to assist research on extrasensory phenomena. While reading this article, it is important that the reader remains attentive to two principles:

1. **Principle of Disbelief:** "don't believe in anything. Not even in what has been reported in this article. Experiment. Have your personal experiences ".
2. **Principle of Rationality:** "Against the facts, there are no arguments".

1. SCIENTIFIC EXPLANATION

The scientific explanation differs from the "sensible" in eliminating the accidental nexus of the causal relationship of events. To delete "accidental" explanations, clarify the relationship between cause and effect and control the environmental variables, Parapsychology analyzes the experimental data through the statistical method, comprising the researcher as an observer who is not involved in the observed phenomenon.

According to Kuhn (2007), the methodological and instrumental constraint selected to "prove the truth" of the phenomenon observed is based on the researcher's *personal paradigm*, since the human tendency is to fit the universe within restricted standards of the familiar or known personal paradigm:

> (...) the range of expected (and therefore comparable) results is always small if compared to alternatives that the imagination can conceive. In general, the project whose outcome does not match this narrow margin of alternatives is considered only a failed search, a failure which is not reflected on nature, but on the scientist. (KUHN, 2007, p. 57)

The paradigm of the researcher influences the interpretation of the observed phenomenon, such as the situation explained by Rapoport (1998):

> Any one of us wouldn't believe in their own senses if in summing a column of numbers you found different totals adding up from top to bottom and from bottom to top. No matter the number of times you saw such a thing occur, we would not believe in the result. The

> sum has to be the same, being it top down or bottom up. The laws of arithmetic demand this and the evidence from the senses is entirely irrelevant in this case. (RAPOPORT, 1998, p. 13)

In this case, to prove it is irrelevant if it contradicts the truth established philosophically. As science is done by humans, it is not neutral or impartial. We must take into account the human tendency to ignore facts which are contrary to previously established opinions or the greatest likelihood of rejecting *unusual* arguments. Even in a laboratory, it is impossible to know all the variables involved in the experiment as the phenomena are filtered and interpreted by human perception. Andrade (1967, p. 41), comments on the impact that the finding of paranormal or extrasensory phenomena can have on the researcher:

> There are serious implications with certain philosophical beliefs or prevailing systems. For these reasons, the reactions are normally ready and even aggressive, many of them likely having an unconscious origin, assuming strange forms of defense that would well make excellent material for a survey of the psychological behavior of certain scientists. (ANDRADE, 1967, p. 41)

Andrade (1967) reinforces that the disproportionate reaction of *certain scientists* does not aim at the defense of truth, but at the "maintenance of certain systems and principles enshrined and taken as definitive."

> The history of Science is replete with demonstrations of intolerance and conservatism in relation to who is ahead of his time, as Landell de Moura (1861-1928) said "I know well that, in the realm of science, what advances in relation to time shall not expect justice from contemporary people" (ALMEIDA, 2006, p. 5)

If the evidence is to be considered irrelevant, would there be an appropriate methodology to understand psychic phenomena?

2. METHODOLOGY

There are different methods developed by science to prove or disprove hypotheses, since the application of the experimental method is unfeasible in certain scientific areas such as Astronomy. The controlled experiment, when it is possible to be applied, starts to be considered a refinement of the research. Thus, it would be necessary original instruments and methodology in which to study psychic phenomena.

According to Vieira (1999, p. 945), to study the lucid experience of consciousness beyond the limits of the physical body, a central theme of the Science of Projectiology, "is to develop an appropriate research methodology and not fall

into the trivial error of believing that the whole realm of reality can be studied with the methodology from some of the Natural Sciences"

To understand extraphysical phenomena, Conscientiology, the Science that studies the Consciousness, proposes that the researcher be his own instrument and object of research, that is, the researcher has within himself the necessary instruments and resources to disprove or reinforce the hypotheses through self-experimentation.

According to the consciential paradigm, consciousness, also known as ego, soul, spirit, essence, individuality, person, self, subject, among other terms, is dissociated from matter, or rather exists beyond the physical body. Energy refers simply to what is not consciousness.

Among the institutions that carry out laboratory research with the conscientiological approach is the International Association of Laboratory Research in Ectoplasmy and Parasurgery (ECTOLAB, 2013), as with the example of recent work correlating electroencephalography and bioenergy (PINHEIRO, 2013).

In order to optimize the experience for observation of the extraphysical phenomena, various institutions have optimized sites (laboratories without equipment) for self-experimentations, such as the International Institute of Projectiology and Conscientiology (IIPC, 2013), the Center for Higher Studies of Conscientiology (CEAEC, 2013) and the International Association for Evolution of Consciousness.

In the condition of "Guinea pig of oneself", in order to reduce the variables involved in the experiment, the researcher can minimize the "noise" coming from the environment in avoiding perceptual distortions, through laboratory experiments, so as to control the variables and clearly establish the relationship between cause and effect. The definition of variables to be tracked in dealing with extrasensory phenomena is the result of the experiment modeling.

When the individual is aware of their personal condition, with a certain degree of self-knowledge and understanding of their operational mechanisms, they can carry out his own experiment in order to perform the analysis with maximum accuracy of the facts and the daily occurrences.

3. MODELLING

According to Bennaton (1985), a model works as a map, reproducing certain behaviors of reality until it becomes obsolete:

> Facing an unknown phenomenon, the researcher establishes with himself a preliminary form of connection. It is the phase of observation and the first conjecture. Given the miscellany of information collected, the researcher must identify what is relevant so as to order it. This stage almost always results in a model that starts to receive

> the same attention from researcher as was reserved for the previous original system. From there, the investigation of the phenomenon becomes more comfortable, to say the least. (BENNATON, 1985, p. 27)

Models do not represent the reality as a whole, but only certain behaviors of processes of interest. According to Kuhn (2007), although there is a universe of possibilities for models that the imagination can create, the researcher's personal paradigm restricts the possible outcomes.

3.1 Cybernetics

Cybernetics is the attempt to understand the communication and control of machines, living organisms, and social groups through analogies. We consider this approach as a model creation exercise which favors the heuristic process, addressing the target problem of Parapsychology and analyzing different types of instruments for the research of extrasensory phenomena.

We can understand their behavior in two ways: from the inside out, by considering the system as a sum of small parts and thus understanding the whole and, from the outside, by analyzing the system as a single composition. The latter is the bias of Cybernetics.

It is possible to understand the modus operandi of an unknown system (black box) by checking the outputs (or what returns) according to known inputs (alimentation). Similarly, inputs are the sensations or the 5 physical senses and the outputs are the insights or the interpretation of the senses.

In defining a system, we delimit its scope, or outline. In the case of a solely physical analysis of a system, it is enough to observe the inputs and outputs of *energy and matter* of this system. In the case of consciential analysis, the observer needs to follow the process in an extrasensory manner as well, by taking part in the phenomenon observed so that the observer acts as a sensor for the identification of inputs and outputs.

Participation in the experiment implies the phenomenon of retroaction. An example of this influence is the tendency of the sensor to come into equilibrium with the measuring. Take the situation of the use of a thermometer to measure the temperature of a container: If the thermometer is at a temperature lower than that of the container the measurement result will be the initial container temperature reduced by the heat absorbed by the thermometer.

3.2 Laboratory Experiment

It is observed that, with regards to the complexity of the system, modeling only helps in *understanding* what happens and not in the forecast, because

the events are unique. The reader could ask *what is the point in understanding if I can't predict? How else would we know that we understood the phenomenon?*

In this case, the objective is to make the phenomenon understandable, both in self-experimentation or hetero-experimentation. Modeling makes the system palatable and allows it to be observed in detail, expanding the overall view of the given phenomenon. Due to the evolution of the model, the tools to understand it also evolve.

The simplified model of Figure 1 establishes perceptions arising from the relationship between the sensations and experiences of the consciousness. ΔS indicates the variation of entropy, $\Delta S_{\text{Universe}}$ is always increasing and $\Delta S_{\text{Consciential}}$ always complexifying, decreasing (see section 3.3).

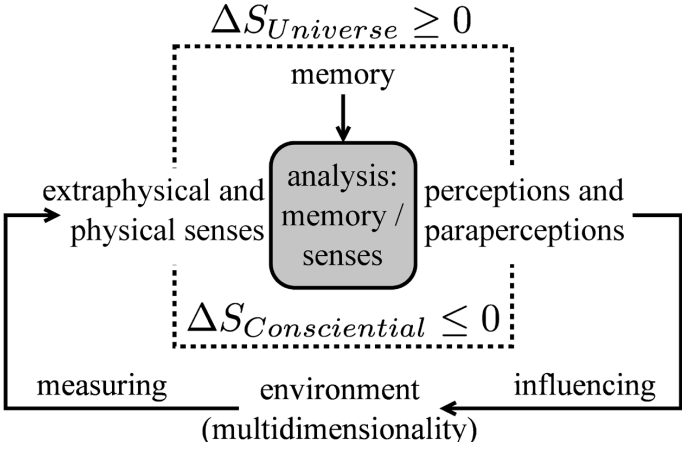

Figure 1: Model of Laboratory experiment

To understand this model it's important to dissociate the ontology, partly perceived by the physical or extraphysical senses, of what we realize or know about the world (epistemology). The sensations of the physical senses are acquired in conjunction with the extrasensory senses. The perception (output signal) or the understanding and interpretation are results of both categories of the senses.

Thus, the greater the separation of these sensory origins, the clearer the understanding of what is perceived by extrasensoriality. The ideal laboratory can be characterized by an absence of the physical senses, maintaining the focus of attention on the extraphysical process. The use of "artificial" means (as in Chemistry) to achieve the absence of physical senses can distort the experimenter`s paraperception. The technique recommended for the desensitization of somatic sensations is *Waking Physical Immobility* (VIEIRA, 1997, p. 122) and Lucid Projection (VIEIRA, 1999).

Perceptual and paraperceptual noises are added to the noises of comprehension and communication with a loss of information. Distorted perception

(a result of the personal subsystem / mechanism of the construction of thought), in accordance with the retroaction principle, influences the environment.

Conscientiology discusses the retroaction phenomenon through Thosenology, a specialty defined as the study of thoughts, feelings and energies as inseparable elements designated by the acronym thosene. Every thought or feeling of the consciousness is emitted to the environment and to consciousnesses through bioenergies.

All consciousnesses exchange thosenes continuously, sharing thoughts, feelings and energies.

In this proposal, parapsychic phenomena tested in the laboratory will be addressed according to the consciential paradigm so that we will consider in the observed universe only two realities existing: consciousness and energy, with consciousness being a separate product from energy or matter.

4.3 Entropy

The degree of organization or disorganization of a given system is associated with its entropy. In short, for work to exist there must be movement and this occurs when there is imbalance (e.g. heat exchange between a hot object and a cold one; water falling from a high location to a lower one). The more unbalanced, unequal, different, diverse, disparate or organized the system is, the lower its entropy. The simpler, uniform or similar the system is, the more it loses the ability to produce work. According to Walker (1996, p. 253), "the energy of the universe remains constant; the entropy of the universe always increases. Energy obeys the Conservation Law; entropy does not".

The *Second Law of Thermodynamics* states that the amount of useful work that you can obtain from the energy of the universe is constantly decreasing. The quality of energy is directly related to the ability to perform work. The "heat demise" would be the condition where there is no more potential difference. Thus, there would be no ability to perform work.

Returning to Cybernetics, highly organized, complex systems, with low internal entropy, are more stable and robust (little external influence) incorporating the information received easily and producing unexpected results. On the other hand, simple systems with high entropy tend to disrupt themselves and are more predictable (BENNATON, 1985).

The concept of information is closely tied to the notion of probability: the more likely a message is, the less information it conveys. "The trivial is less informative" (BENNATON, 1985, p. 32-33). The more complex carries more information, making it less likely to predict its actions. For example, it is easier to predict what a child who learned their first word will say than a wise and experienced person.

The ability of human beings to share ideas or more advanced paradigms depends upon their communicative abilities and command of the lexicon. This makes it possible to aggregate people who share more complex concepts, allowing a description of the material and consciential universe with greater reliability. *The theory-leader of a science is the alloying element of consciential groupality*.

The evolutionary aspect of interrelations is described by the physicist-chemist Prigogine (2000, p. 70):

> (...) If we take as an object of comparison the human society and confront the Neolithic-era society with the current one, it is not so much the fact that men taken individually are more different, more or less intelligent: the relationships between individuals is what have undergone a radical change. Without doubt, our society also ages, but faster than the Neolithic society, because the media has been broadened and thus the dynamics of social correlations suffered huge acceleration.

The media is directly linked to the evolution of interrelations by providing the facility for interrelating. Nature tends to increase entropy whereas human interrelationships tend to diminish it.

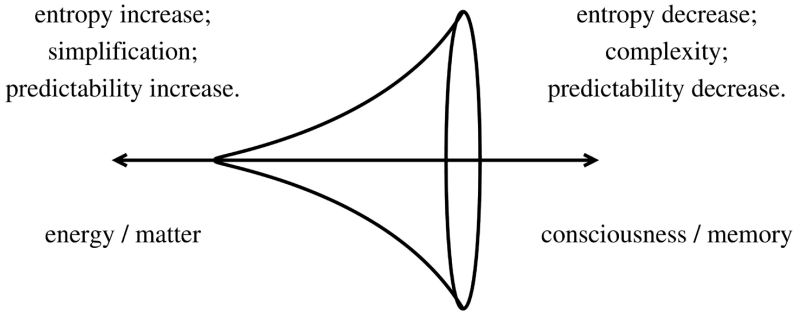

Figure 2: Cosmos Flow Model

In Figure 2, the cone represents the increase of complexity of the consciousness/memory system and the tendency towards simplification of the energy/matter system. The diameter of the cone proportionally represents the present information.

In this manner, the consciousness is able to reduce, by means of external force, temporarily, the entropy of matter (which tends to decrease information) and permanently, the entropy of its own memory.

The greater the degree of information, the less the probability of prediction is, i.e. possible correlations are increased due to the complexity of the system. Thereby, the increase of complexity and the decrease of entropy tend to create more stable systems.

As a consequence of this model, 6 axioms in logical order are listed below:

1. the less *entropic*, the less *deterministic*.
2. the less *deterministic*, the greater *complexity*.
3. the greater *complexity*, the less tendency for *disorganization*.
4. the less *disorganized*, the less *predictability*.
5. the lower the *predictability*, the greater the access to *leading edge relative truths*.
6. the greater the access to *leading edge relative truths*, the lower the *entropy of the system*.

Thus, thermodynamics and information theory seem to be incompatible with the bias of entropy. However, what is suggested in this article is that this occurs as it is elements of *differentiated nature*. Thermodynamics is to matter/energy as the information theory is to consciousness/memory.

It can be said that there is no record in the memory of a sequence of events if the increase of entropy in the system does not occur. The decrease of the entropy of consciousness/memory is dependent on the increase of the entropy of the matter/energy system. Life on the planet accelerates the use of good quality energy, resulting in acceleration of the increase in entropy. *Would the purpose of life be the acceleration in energy use? Is it consuming more and accelerating the increase of entropy*? However, it appears that this relationship is not proportional, as the increase of the entropy of matter is not egalitarian to the decreasing of entropy of the consciousness.

Let's look at an example: a person in state of coma may have the perception that a split second has passed, when in reality hours have passed. Similarly, the person experiencing a *Near-Death Experience* (NDE) may have a panoramic view of his life in a split second so *the decrease of consciential entropy is not proportional to the increase of energetic entropy*.

Imagine a fictional experiment: a person with no physical body (only one reference point) in one dimension without a reference of space or even sensations such as heartbeat, sounds, temperature variation, smells, breathing and vision. The notion of time would be solely based on the sequence of his thoughts. We could consider this condition as *the best efficiency of the decrease of consciential entropy due to the increase of energetic entropy*.

To simplify the consciential process in the vector of entropy is a reductionism that aims to approach only to a facet that can be related to matter.

3.4 Paradigm

Paradigmatic entropy is related to the ability to understand complex phenomena and to combine several variables.

Paradigms that are less entropic allow for a greater degree of organization, and, in turn, the analysis of larger quantities of different and interrelated variables. More entropic paradigms simplify the reality as seen in the materialistic approach which ignores thosenity and restricts the understanding of the phenomenon.

The amplitude of the paradigm approach requires a compulsorily equal capacity of information transmission, i.e. lexicon command, proper vocabulary, enabling the accuracy and precision of concepts. Consciential evolution is linked to a more comprehensive and complex sharing of the paradigm.

The *electronotic* paradigm focuses on matter and ends up excluding the part of the universe that does not fit this pattern. It is more entropic and simple, as it excludes the consciousness due to a lack of being able to understand it. We can take for example the image that Classical Physics has of the universe as a place without room for consciousness. "The universe appeared as a huge automaton, subject to deterministic and reversible laws, in which it was difficult for us to recognize what characterizes thought" (PRIGOGINE, 2000, p. 82).

In the consciential paradigm, memory is considered an endless and permanent capacity, as it is not associated to the element of matter, but to the element of consciousness, presenting distinct characteristics so that consciential entropy always decreases and the entropy of the energetic universe always increases, as seen in Figure 1.

The more original, unpublished or clarifying the information is, the lower its entropy. The more organized and less entropic the personal paradigm is, the greater the researcher's freedom will be in exploring the universe.

CONCLUSIONS

The main constraints in the verification of paranormal phenomena have been presented and in the following is suggested that the researcher take part in the equating of the psychic phenomenon.

Among the main difficulties relating to the research include:

1. **Flexibility**. A lack of flexibility in the research as evidenced in the application of instruments incompatible to the nature of extrasensory phenomenon.

2. **Escape**. Maintenance of the exclusively material world as the object of research, evidencing an escape from *self-scientificity*, associated with the posture of superiority in the researcher-researched dissociation, ignoring the thosenic interaction (thought+sentiment+energy).

The laboratory experimentation model was proposed taking into account variables such as: physical and extraphysical senses, memory, perceptions and para-perceptions, and the researcher's influence on the environment and its con-

sequences. The proposed model addressed the divergent directions of the entropy variable in binomials such as *consciousness/memory and energy/matter*.

It is concluded that the consciousness experiences an irreversible process of an increase in complexity where the entropy only decreases or remains constant, and that the relationship of the increase of energy/matter entropy is not proportional to the reduction of the consciousness/memory entropy.

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Guilherme Kunz is a professor at the State University of the Western Paraná (UNIOESTE) on the Foz do Iguassu campus. PhD in Mechanical Engineering at the Federal University of Rio Grande do Sul (UFRGS) and University do Minho (UMINHO) in Portugal. Organizer of the book *Acoplamentarium: The First Decade* (2013) and general coordinator of the Extension Course in Conscientiology and Projectiology 2 (ECP2) at the International Institute of Projectiology and Conscientiology (IIPC). E-mail: guilhermekunz@gmail.com

Translation: Mário Luiz de Sá.
Revision: Alexandre Zaslavsky and Jaclyn Cowen.