INFORMATION AND LIVING THINGS

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ABSTRACT

What is the origin of everything we see around us? What is that which is called life or the fact that there is complex matter "organized" in an improbable physical state and that it perceives its environment in non-physical manner. Rocks can grasp their environment in a physical way and transfer energy from themselves to their environment. This complex organized matter grasps another "world", as it grasps the environment in an "informational" way, and acquires an awareness of its environment, neither physical nor material, that aids the management of its improbable physical state. This awareness is called information.

Is this informational ability, which allows the complex organized matter to "process" and adapt to its surroundings, what we call life? Many examples in nature support the idea that the ability to "process" and adapt to surroundings is exclusive to those beings called "living."

Let's affirm life exists. Let's also affirm that organized matter, with its informational ability, perceives something non-physical: information. This holds that apart from the physical world, for living beings, there exists a world of information. This world is not matter and exists differently for each one of these living beings. This way (informational ability) of each living thing, creates a compilation of perceptions, particular truth, which is unique to and only exists in the mind of each living being.

The material world, which is comprised of everything that exists, is called general truth, or universe. This general truth limits our informational world and reminds us that to maintain the improbable physical state, optimal use of information is necessary. So matter is universal, its interpretations: multiple. There is at least one for each particular truth.

A particular truth is formed by unique perceptions, which for exposure to other living beings require a specific process: communication. Perceptions of the general truth are complex and humans have generated important concepts (amount, time, color, shape) or tools (language) that allow us to share these perceptions in seemingly universal ways. Communication facilitates the formation of the conventional truth, the truth of groups of living beings that shared and validated their particular truths. Therefore, the world of information has a conventional truth too, made up of perceptions shared through groups of living beings

Each perception in a particular truth contains multiple elements. Each element is a datum (Word, red, round, few, day) which is represented or substituted in the particular truth

and communicated, using codes and matter. To form the idea of what we perceive, information, we collect this data and obtain a perception within the conventional truth.

This information, particular truth, unites with other information (if allowed) in the living being, usually biological (directing the behavior of the being), to determine a way to continue this complex matter's (living being) existence in the material world, the general truth. The ability of this being to combine external and internal information to continue its improbable physical (and/or organized and/or chaotic) state called life, or to end it if so chosen, is the ultimate decision. The decision making process can be peripheral or remote. The peripheral is tactical. It deals with decisions concerning concrete topics, which happened or are likely to occur. The remote is strategic. It deals with decisions concerning abstract ideas, which have not happened and whose occurrence is uncertain.

So, the origin of everything we see around us is our informational ability, a characteristic of living beings (from the informational standpoint, as another question involves the origin of matter itself.) And we can say that what we call life is the ability of complex matter to process information with its informational ability.

Keywords: Informational Ability; Essence of life; Living thing; Information; General Truth; Conventional Truth; Particular Truth; Decision; Strategy; Tactic.

INTRODUCTION

This paper came from the idea to have an integral use of information. This includes two main uses: making decisions and communicating. As a Business Intelligent professional, the need to make better decisions is the fundamental nature of all use of information and the way to increased profits and business growth. On the other hand, business people need to communicate better with clients, which mean they need to have more win/win relations in order to create more business. After some time, the project came to see the very foundation of the information, observers. The observer is the very producer and holder of information. There are different means by which we have and use information but all of them pass through our informational ability, which is the essence of being alive. Computers, books and other body extensions are tools, but we always make the last decision, even to believe, or not, the results of the tools at hand. Furthermore, in even deeper decisions, sometimes our informational ability clots and we make the biggest decision an observer can make: to end its own information ability. Therefore, to have a better use of information personally or in business, we can use the help of many tools, but need to keep a good sense of our main objective - to live a better life in beautiful, peaceful communities – by also keeping a good sense of the validity of what is presented to us, as information.

INFORMATION ORIGIN

What is the origin of everything we see around us? What is that which is called life or the fact that there is complex matter "organized" in an improbable physical state (1) and that it perceives its environment in a manner other than the physical? Because rocks can grasp their environment in a physical way and give off energy, if the environment has a lower energy level, or gain energy, if the environment has a higher energy level. This complex organized matter grasps another "world", the world of information, as it grasps the environment in a way other than the physical, a way I will call, informational. This new world only exists for the open complex matter-energy system that observes it. It is created out of the physical observations of that other open complex matter-energy systems, or more simple systems, that are out there, through an action called: to observe. This new world is not created by any physical way. Because you don't see in your eyes, you don't even see in your brain, you see in your mind. Your mind is not your brain, but the conscious of the observer, YOU. Your informational way is not physical, it is informational and let me call that awareness or capacity to observe, informational ability. Then, the origin of what we see around us is the result of that informational ability, well kwon to humans, information. That informational ability can be called life.

Do the other open complex matter-energy systems we see live? Some live, others don't live. The ones that live (we share the informational ability), we can communicate by information and through the physical world, which is called media. We use our informational ability, code the message, then send it and await a response. The same process comes back as a response and the communication process is engaged. Talking about those systems that are not alive, will bring us to those do not share our same coding system. If you speak English (code 1) and do not know another language, how do you communicate to a Spanish (code 2) speaker? Not easy task but I'll leave it to you to figure out. As mentioned, rocks can grasp their environment in a physical way, but do can they use the informational way? Or do we not have the code (rocks' code) to communicate with them? As before, solve it. For me at this point, rocks do not have the informational ability, do not offer information. Rocks are part of that matter-energy world out there. Only living things have the informational ability; that lets information be acquired, processed, created, used, communicated, and stored and most importantly, help to "replicate" the system that holds the information. Living beings will observe that rock and form an idea of (give meaning to themselves of) that matter-energy system called rock, creating information according to the tools or means used to observe it, and the particular truth that observer has. Then, there are other living beings out there, which we can communicate to and from. There are other systems we cannot communicate with, but we can use to communicate through them, call them media.

What about computers? They should be mention here as they are humans brain extension (2), Do computers acquires a, let's say, conscience of its environment, can communicate by themselves or to themselves? I won't ask if the computer is aware of itself, which seems to be done by few living beings. First, let me say that mechanical computers exist. They are not as efficient or automatic as electronic computers but they perform calculations. Computers are machines using the out there matter-energy system, in the

way living beings intended to have them to work; Computers are machines following mechanical and physical laws, what they were designed to do, computers grasp the physical world all the way as the rocks do. The process is all physical; computers do not have informational ability.

From the system theory perspective, living beings or living organisms are subset – subsystems - of the matter-energy universe system and the informational ability or life is an emergent property. Wherever you see a living organism, you are seeing a complex matter-energy system that has informational ability. Informational ability only belongs to living things. You can have those complex molecules of life in a lab ball, under heat, magnetic field, sparks, but that lab ball won't have any living thing until those molecules, however they can, get some informational ability. Then, the origin of what we see around us is our informational ability and that is the essence of being alive, to process information.

UNIVERSE OF INFORMATION

"There can be no disagreements only misunderstandings. We are
all looking at the same universe, in the end we must agree."
<div align="right">*Korzybski's General Semantics*</div>

Let me create a possible scenery for information; let me create scenery for the universe of information.

Particular truth

In an effort to be practical and not philosophize about how life came to be, let's affirm it exists. Information is hold apart from the physical world, by living beings, where meaning exist (in the living beings) and is "uniquely" hold for each individual living being. It is hold uniquely for each living being because there is not a unique informational ability, and there is not unique exteractions (4) between the world out there, the universal system, and the information hold by the living beings. This world is not matter and exists in a different way for each one of these living beings. Each living thing creates a compilation of perceptions which we can call: particular truth, which is unique to and only exists in the mind of each living being. This individual particular truth, the one hold for a living being, can be called a world of information. Then we can agree in at least two places where the universe exists: Out there and in our world of information or particular truth.

Mathematics is a "precise" language. Our daily languages are not as precise as mathematics then no wonder is easier to agree that 1+1=2 than that a couple (man-woman) is a new system different from the man and the woman. Some time ago, thinking about system interaction or interrelation within its parts and with its environment, created a mismatch at my particular truth. Is it the same that a part communicates with its peer, within the same system than communicates with other system out there? That had no sense and the word exteractions was created. Exteractions: Actions among systems or actions between a system and its environment. Therefore interactions: actions with in a system or among subsystems or interrelations: relations within a system or among

subsystem. Exteractions creates awareness about systems, subsystems and metasystems and also awareness about levels. We can say that the world of information exteract with the matter-energy universe.

General truth

The matter-energy universe, which is comprised of everything that exists out there is what we called universe, Let me call it material universe. What about your particular truth, my particular truth and other living beings particular truth? Let me call that collective: general truth, or universe of information. All that exists, including all living beings will be just the universe., Is well known that the life is not sustain without the matter-energy universe but it is also well known that information is not material-energy, then, let me tell that the matter-energy universe is what puts our feet on the ground. It limits our informational world and reminds us: that to be able to maintain this improbable physical state, we need to use information as best we can, making good earth ground decisions. We can conclude that the matter-energy universe is the base, or foundation, for the information's universe; then, from the informational point of view exists the general truth; its interpretations are multiple; there be, in theory, at least one interpretation for each leaving being, from this living being particular truth. The information's universe is form from all particular truths.

Conventional truth

As said, particular truth is formed by unique perceptions. If a living being has particular perceptions of the matter-energy universe, how a community of living beings exists? How one living being can share information to form that community? Here we have a process between or among living beings, where one's information is exposed to other's information this is a process we call: communication. How to call half the process, the process to interpret the general truth? You will notice, half of the process to communicate, is the same process used to perceive the world, it is an informational process perform by our information ability (in the receptor side). Then to be able to communicate, there is a requirement to generate common information in both receptors, as the theory of communication stays and call that piece of information: code, which is not the information but it is required to get the real information in order for the communication to get place. With that same code in both ends of the communication process, we obtain a conventional truth, or the truth of groups of living beings that have shared information, that is called, language. Languages are tools that let living beings validate their particular truths. At the same time, languages help validate general truths, in a famous process called scientific method. Then, we can say that the world of information has a conventional truth. The conventional truth is made up of the perceptions that we can share as a group or groups of living beings.

Perceptions of the general truth are complex and humans have generated important concepts (ex. Amount, time, color, shape) or tools (ex. language) that allow us to share these perceptions in seemingly universal ways. Each perception of our particular truth contains multiple elements. We will call each element a datum (ex. Word, sentence, red, green, round, few, many, day) and is represented in the particular truth, communicated,

using the codes and the mater-energy universe at our hands. From here, to form the idea of what we perceive, which we have called information, we collect this data and obtain a perception in the conventional truth.

USES OF INFORMATION

What is the basic use of information? As said a system has interactions and exteractions. We can say that, from the internal point of view, it is to communicate the system subsystems; and from the external point of view it is to perceive the system environment. Now we have two sets of information, one that we call particular truth, unites with other information (if allowed) in the living being, the biological (usually directing the internal behavior of the being), to determine a way to continue this living being existence in the matter-energy universe, in the general truth. From here emerges what we call: a decision, the ability of this living being to combine external and internal information to act to maintain its improbably physical state (and/or organized and/or chaotic) called life, or to end it if so chosen. This decision making process, it is also based in the living being informational ability and can be peripheral or remote. The peripheral is dealing with decisions concerning concrete topics, which had happened or have a high probability of occurring; we will call it tactical. The remote is dealing with decisions concerning abstract ideas, which have not happened and whose probabilities of occurring are often uncertain; we will call it strategic.

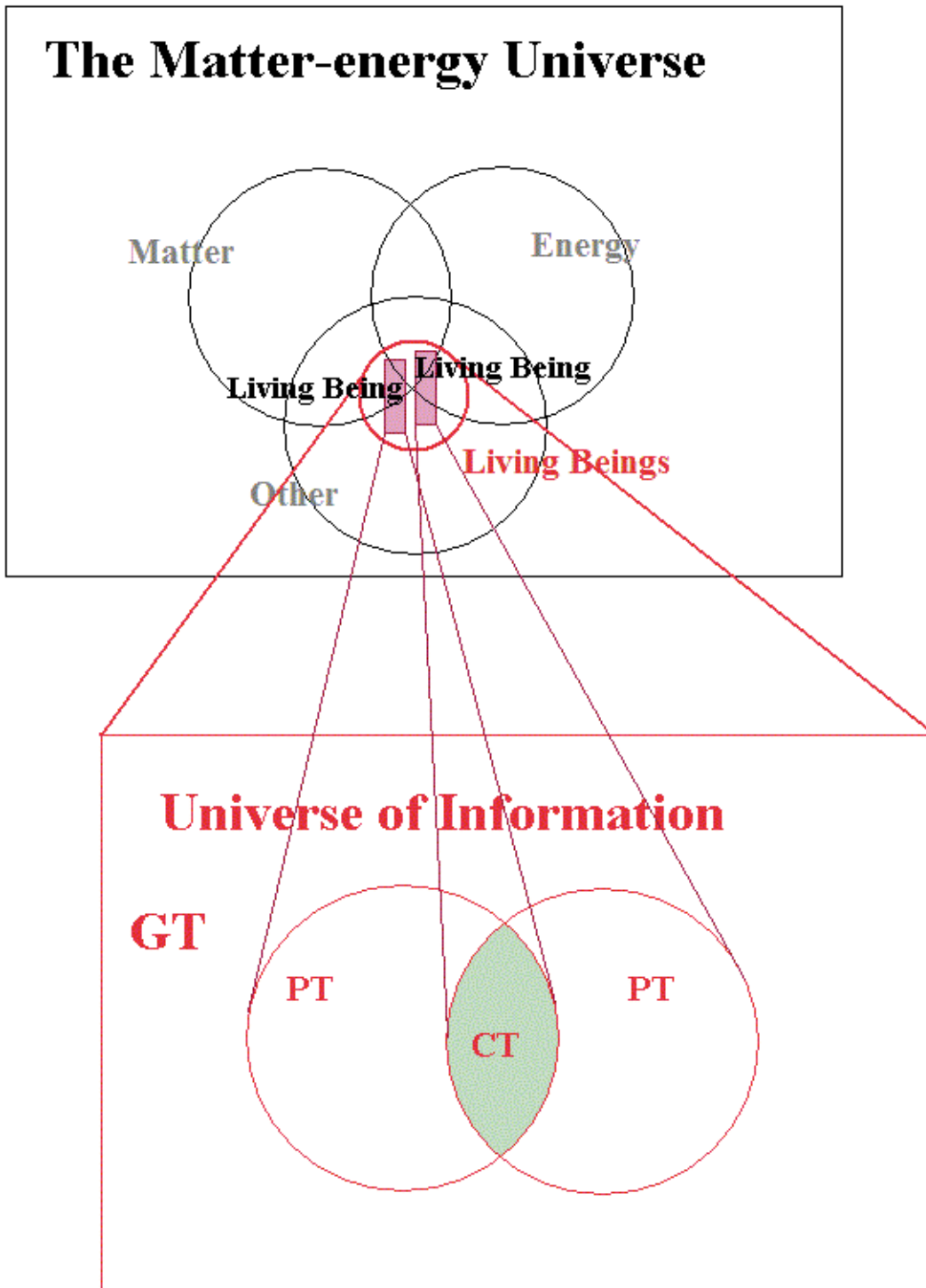Decisions are the very basic use of information for any system.

Figure 1. Matter-energy and Information Exteractions

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NOTE: I need to recognize that other formal and informal literature has contributed to this document. As well as some firsthand encounters with other living beings, many forms but same essence, systems with informational ability, that will be very long to list here. Thank you to all of them.