

Separation and Integration

An Introduction to Non-Linear Existentialism

2020 Updated version of 2016 Treatise

Version III

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Preface

This is the third version of Separation and Integration and is the result of additional reviews of the previous versions. The first version was written in 2016 and was the initial attempt to bring together all of the various aspects of the theories under the Non-Linear Existentialism banner. To me the results were somewhat clumsy and not as sequential as they could have been.

The second version, written in the summer of 2018, was an improvement over the previous edition; however, there was certainly room for improvement.

The present 2020 update includes inclusion of terms such as Emotions, Emotional States and Heuristics as well as additional editing to remove errors, improve flow and give further clarification where needed. Fortunately, as per Proposition P6 of this work, the review did not seem to find any known faults in the logic of the paper. Therefore, it is at least internally consistent and not evidently contradictory within itself; however, it may not be externally consistent which is often the case for systems such as this one which claim to be more certain than it has a right to be.

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Introduction

The purpose of this treatise is to define the fundamental aspects of Existentialistic Thought and determine if they can be applied to the physical nature of a person. To do this, the Central Nervous System is reframed as an energy processing system that manipulates the energy passing through it via a Positive-Negative Feedback Loop. Because I am using terms normally employed in engineering, and hence, using terminology often meant for instruments and machines, it could be implied that such a system is deterministic, which would be at odds with Existentialistic Thought. However, this conclusion is incorrect. The primary characteristic of the processing area of this physical system is that it is non-linear to its inputs.

This work will also act as a summarizing document for all of the papers and presentations that I have posted on my website (www.charitiesoflife.com) and on Youtube. Because the enclosed system, with its various theories, conclusions and speculations has been in development since 1992, the initial scope of the theory has grown. For example, it was not until 2008 that I became aware of the possible relationship between neuronal energy and social integration.

Another reason for this document is to test if the various components of the theory, when taken together, are consistent and non-contradictory. While it may be possible for me to describe some sections of the theory in a consistent manner, they very well may be contradictory with other previous conclusions. More troubling is the possibility that even if the entire theory is internally consistent and non-contradictory, at least in my mind, it may come across as pure fiction when compared with the world outside of my contemplations.

It should also be noted that even though the proposed biological system is very closely related to Existentialistic Thought, it is not until Section VI, that it is directly discussed. The reason for this approach is due to prudence; I firmly believe that the reader should be fully aware of all of my initial premises, most of which are consistent with scientific principles. And while the various conclusions could be discussed at length, including comparisons with different philosophies, such discussions are far too advanced for an introductory document. Because of this, the theory is given in a moderate number of brief propositions.

Furthermore, I am hesitant to discuss many philosophical systems because I believe most are indirect and vague. This is not to say that the subject matter of philosophy, including thought, learning, truth and the like are just empty ideas. What I mean is that many philosophical concepts seem to be rooted and/or qualified in non-quantitative terms, and due to this there is no objective way of studying them, let alone verifying them. It would be like a group of observers listening to a symphony played by an orchestra, but discounting the importance of the musical instruments used to produce it. Perhaps this is done because they believe music in-itself is sufficient to reveal the 'truth' of the music, however, in science, of which philosophy is a founding member, it is not acceptable to assume anything about that which produces an outcome without directly studying that which produces it.

I. Energy

Proposition E1

Energy is an object's ability to change/alter some aspect of its own form through the totality of its inherent tendencies, and is its most fundamental characteristic. If the environment is all objects and media within a given space at a given time, this change may lead to energy being emitted into environment and possibly affecting one or all of these parameters.

Proposition E2

The change in the object and those it affects occurs at a certain rate (frequency) to a certain amount (intensity/amplitude). The change can be regular, irregular or both. The change can also be constant, episodic or both.

Proposition E3

Interaction with the environment involves a transfer of energy between the emitting object(s) and the receiving object until an equilibrium is reached. This relationship not only allows the emitting object(s) to possibly effect the receiving object(s), but with the transfer of energy also possibly being reciprocal in nature, any part of the environment can become the emitting object(s) and possibly affect the emitting/sending object(s).

Proposition E4

Different types of energy with various rates of change and intensity will create different types of sensory surfaces/apparatus to develop on the receiving object's surfaces in response to the receiving object's physical characteristics in these areas and the type and rate and intensity of the energy such areas are exposed to. The sensory surfaces/apparatuses are often referred to as External Sensory Receptors.

Proposition E5

An emitting object may emit more than one type of energy, through more than one type of media that can create/affect more than one type of External Sensory Receptor.

Proposition E6

At the External Sensory Receptor, the energy signal is transformed into an Internal Energy Signal based on the physical parameters of the External Sensory Receptor's form and the rate and intensity of the external energy signal reacting with the receptor.

Proposition E7

Based on the current understanding of neurophysiology, a majority of the internal energy signals directed inward toward the internal receiving organs are propagated via electrical impulses carried on nerve cells. For organisms that have developed in environments with heterogeneous levels of resources it has caused the sensory receptors and the associated processing areas/organs required to observe such heterogeneity or directionality to not only collect in areas where this input can best be observed, but also to integrate the various sensory inputs/modalities resulting in the internal receiving inputs to coalesce into the top (head) of the body, creating a Central Receiving Organ (brain) within it.

Proposition E8

In view of these considerations, the apparent functions of the Central Receiving Organ (CRO) for sensory input is to collect, integrate and compare the energies of transformed input signals to those that are currently stored in the CRO and produce an output. Following this, changes in the organism's behaviour may occur. Behaviours that increase the organism's chances of survival are more likely to be chosen than those that do not.

Proposition E9

Various factors can cause the frequency of heterogeneous energy signals being emitted by an object or event to be received by the Central Receiving Organ at different times. These factors may include the rate of transmission of the energy signals through the media between the emitting object and the receiving object; the length of time for the transformation of the external energy signal into an internal energy signal and the length of time needed for the transformed internal energy signal to arrive at the CRO. However, because experiences are experienced as a unified whole by the CRO, the separate inputs with differing modalities must be unified through modulation of their frequency either between the receptors and Central Receiving Organ or within the Central Receiving Organ.

Proposition E10

Entropy is the measure of a system's tendency toward disorder and becomes maximized when the universe is homogenous. Entropy is the transfer of energy from objects with more energy to those with less energy until all objects have the same energy state. From this, it can be inferred that since a sensing system has to be impacted by the energy emitted by the environment in order to respond to it, an object must reduce the effects of entropy in order to maintain itself. If the object accepted too much Entropy, it would be destroyed. With internal referring to the object and external to the environment, and order the ability to maintain its form, objects that have a non-linear relationship with the environment must have a higher state of internal order than those that are linear with the environment.

An illustration of this is to compare how a pile of dust and a large rock respond to a strong wind. The dust will scatter, but the rock will not. After interacting with the environment, the dust is in a higher state of internal disorder than the rock. Therefore, while the entire environment (universe) adheres to the theory of Entropy, if heterogeneous items within it have the necessary energy to be sufficiently non-linear to it, they can maintain their own level of internal order (form). And the more the object interacts, and is affected by the environment, as a sensing system would have to be, it could be suggested, the greater its capacity to be non-linear with it has to be.

II. Perception

Proposition P1

An observation, idea, theory, hypothesis and/or concepts can be categorized as statements (written or said) generated/employed by an observer to describe any characteristic or relationship concerning an object's energy from the perspective of the observer.

Proposition P2

As per Proposition P1, such statements are more likely to be more abstract than those concerning the emitted objects producing them because of the distorting effects of the environment and/or the perspective of the observer. Therefore, an observation, idea, theory, hypothesis and/or concepts will be more truthful if the energy outputs of the object are considered within the context of the object, and not by primarily studying the characteristics of the outputs by themselves.

Proposition P3

The object's emitting energy can only be perceived and possibly understood by a receiving object if the receiving object's sensory apparatus can differentiate this received energy from the other object's energy in the environment. I will refer to this as Differential Perception and is an inherent ability of any organism that is able to interact with its environment. When compared to Referential Knowledge (Proposition P4) it is a result of less manipulation/processing of the external energy signal by the receiving object. I will refer to any internal manipulation of an energy signal as Processing. The first instance of such processing is the transformation of the external signal to the internal energy signal by the sensory receptors and is the first step in Differential Perception within the object.

Proposition P4

Once an emitting object's energy is differentiated by the receiver from the background environmental energy levels, the transformed external energy can be compared to other

emitting objects in the environment and assigned internal meaning by the receiver based on current and past comparisons stored within their Central Receiving Organ. I will refer to this as Referential Knowledge. Because this type of knowledge is created by comparing transformed energy signals against one another, it is prone to higher levels of abstraction in comparison to Differential Perception.

Proposition P5

To differentiate between internal and external standards, I will employ the concepts of Quantity and Quality. I will define Quantity as an external (of the environment, including its media) relatively non-changing (stable) standard that is used by an observer, to measure objects/ideas against, whereas, I will define Quality as an internal (of the receiver) relatively changeable (unstable) standard that is used by an observer to measure objects/ideas against. Please note that the qualifier 'relatively' is assigned to the terms stable and non-stable, as it pertains to standard, because neither of them is purely unchangeable, but in comparison to one another, one state is more stable than the other.

As such, because the concept of Quantity, within this definition, is based on a relatively stable external standard that is accessible by others, it can, in theory, be used by all members of a group/society as a common form of measurement. An example would be measuring how wide a book is with a ruler. In comparison, with concept Quality being defined as a relatively unstable internal standard, it is neither readily accessible nor known to all members of a group/society. An example for a person would be predicting how they might describe themselves at two different times in the same day.

Therefore, based on Proposition P3 and P4 there are four (4) possible permutations of the concepts given. The pairings include: 1) Quantity - Differential Perception; 2) Quality - Differential Perception; 3) Quantity - Referential Knowledge; and 4) Quality - Referential Knowledge. Examples are given next for reference. 1) Quantity - Differential Perception, or a relatively stable external standard that allows differences in an external energy signal to be sensed, is a calibrated sound testing device that can accurately and precisely measure differences between environmental sounds. 2) Quality - Differential Perception, or a relatively unstable internal standard that allows differences in an external energy signal to be sensed, are any of the primary sensory receptors and their associated primary sensory areas in the brain. 3) Quantity - Referential Knowledge, or a relatively stable external standard that compares the transformed signals against one another, would be Social Symbols, including words and language. 4) Quality - Referential Knowledge, or a relatively unstable internal standard that compares the transformed signals against one another, would be personal views of beauty and truth.

Proposition P6

An observation is perceived to be more truthful by an observer the more observations it is consistent with and does not cause the creation of contradictions in said observations.

III. Imperfection and Perfection

Proposition IP1

To me, the only observations that I perceive that are most reflective of my own existence is that there appear to be objects around me that may or may not exist beyond my own perceptions. Within this qualified observation, and in comparison to it, I am absolutely certain of my own faults which make me aware of my own imperfection. In contrast, the purest expression of a form, state or idea is Perfection.

Proposition IP2

Being in an imperfect state of personhood implies that I am incomplete and therefore my form can be changed, and possibly be improved. This statement implies that my physical self or form can be, and often is changed by forces greater than myself. This statement is in agreement with Proposition E10.

Proposition IP3

Because at a specific time in a specific location, I cannot be greater than what I am, or in other words, in terms of my physical limitations, I cannot self-create. Due to this understanding, I am also aware that the changes in my development toward less imperfection would mostly be due to external energy sources (Proposition E10).

Proposition IP4

The God that I am conceptually aware of, is the perfect expression of what can be, having both omnipotence and omniscience. Such a state implies that its form could not be changed by any forces beside itself. It is the Perfect Being. Please note that Being (capitalized) is a term that I will use when referring to an object that can both send and receive energy from the environment and may become or are self-aware (sentient) because of this.

Proposition IP5

Because my form is changeable, being in contact with a Perfect Being whose form is by definition complete and all-powerful, any exchange of energy between us would result in my complete annihilation (Proposition E10). For example, having me in contact with such a Being, would be like putting a regular sized snowball inside the middle of the sun. And since I believe that I exist, I can only conclude that the Perfect Being either does not communicate with me, which begs the question of how would I be aware of the Perfect Being, or that the Perfect Being does not exist.

Proposition IP6

Because the environment is developing, and is therefore, also imperfect, how can it have lead to the creation of an Imperfect Being, such as myself, that is aware of perfection? I could infer that the ability of an Imperfect Being, such as myself, who is the creation of an imperfect system to create the theory, hypothesis and/or concept of the Perfect Being, is because I am non-linear with the perceived environment. I will define a non-linear outcome as that which does not maintain, or adhere to, causality as predicted solely by the known characteristics of the known inputs and the known system it is processed by.

Proposition IP7

In order for the Central Receiving Organ (CRO) of an organism to be non-linear with the environment, thereby allowing it to either become, maintain, or increase its heterogeneity with the environment (Proposition E10), the CRO would have to have a sub-system that produces energy that is not changed, or degraded, by the external input from the environment. This would allow it to break the chain of linear causality.

Proposition IP8

If possible, the non-degradable internal signal should have a constant rate of change, imbuing the CRO with a set frequency that would equally affect all of the inputs, allowing the various inputs to co-occur at the same time, thereby unifying the organism's experiences (Proposition E9). I will refer to this as Temporal Binding.

Proposition IP9

Given the concept of Quality (see Proposition P5), it could also be suggested that not only could the non-linear subsystem of the Central Receiving Organ imbue the person with a bounded experience in time, it may also cause the person to have a unique or non-linear standard that is not readily available to others.

IV. Thought

Proposition T1

Processing (see Proposition P3 for definition) of the external transformed input in a non-linear manner may be the reason that I am aware of myself as myself. I will define this unique way of processing/manipulating such internalized energy as Thought. This means that a person becomes self-aware (Proposition IP4) when the stored internal states within their Central Receiving Organ (Brain) are sufficiently non-linear to the external environment due to the accumulated effects of the internal non-linear subsystem.

V. Realization

Proposition R1

A person's nervous system consists of billions of neurons and their supportive structures. Neurons are excitable cells that summate inputs from other neurons or sensory organs, and produce an all-or-nothing electrical output within the axon. The output area of the axon is either in direct contact with other neurons or organs, or there is a gap which is referred to as the synapse. Once the electrical signal within the axon has reached the synapse, it causes a chemical substance stored in this area, known as a neurotransmitter, to be released into the gap. Depending on the chemical composition of the neurotransmitter and the physical nature of the gated protein of the receiving neuron, the released neurotransmitter may have a positive or negative effect, that is, cause the affected or stimulated post-synaptic neurons to become more or less excitable. Although many neurons are not physically connected to each other, if the input has a higher probability of causing another (output) to respond, the more connected they could be considered to be.

Proposition R2

By way of changing the strengths of the connections between groups of static, non-moving neurons Neuronal Patterns are produced in the Central Receiving Organ or Central Nervous System, with the Cerebral Cortex (CC) being the area with the greatest number of patterns associated with sensory input. In this context, a (neuronal) pattern is that which stands out from the background, and is based on (neuronal) connections with other elements (neurons) in the environment. Differential Perception (Proposition P3) are basic sensory patterns, whereas Referential Knowledge (Proposition P4) are derived from them. The latter gives meaning to transformed energy from sensory receptors/organs (Proposition E4) when compared to other internal patterns. Neuronal Patterns that are the result of further neuronal processing reflect more complex/abstract levels of Referential Knowledge.

Proposition R3

The two ways by which a Neuronal Pattern can be made or changed: Frequency (changing the rate of firing of the neurons within the pattern) or Amplitude (changing the level of excitation of the neurons within the pattern) Modulation. If the modulation of either of these is not directly linked to the external input, it is non-linear to it in some extent.

Proposition R4

In keeping with Propositions IP8 and IP9, and how they may be physically expressed by a stimulated neuron, Thought, as it is defined in Proposition T1, could most likely be a by-product of both Frequency (Temporal Binding) and Amplitude (Quality) Modulation.

Proposition R5

Given Proposition IP7, activation of modulation by environmental input should not occur via direct contact with the input neurons. If the modulating neurons were directly affected by environmental input, the sub-system itself would become linear to the environment.

Proposition R6

Given these requirements and the basic principles of Neuroscience and Electro-Magnetic Field (EMF) Theory, both types of modulation could be brought about by an electro-magnetic field produced by neuronal impulses within the Cerebral Cortex. However, in order for non-linearity to occur, the processes that produce the initial EM Field could not be directly affected by the processes they affect. If not, as stated in Proposition R5, the output of the system would become linear to the input.

Proposition R7

Given my current understanding of neuroanatomy, the following is suggested as to how Thought may theoretically be created in the Central Nervous System:

- 1) The transformed external electrical input signals enter the Cerebral Cortex of the Central Nervous System.
- 2) As the myelinated axons carrying the transformed external electrical input enters the Cerebral Cortex through Thalamic and other input channels, they pass upward through Layer VIb (lowest layer of the cortex), creating an electrical current/field parallel to the exterior of the afferent axons. This occurs due to the passive movement of ions in the extracellular space between the Nodes of Ranvier in the active afferent axons entering the Cerebral Cortex.
- 3) As per the theory of Electro-Magnetic Fields (EMF), a magnetic field is created at right angles to an electrical field, which in turn creates another magnetic field. The inherent alternation between electric currents/fields and magnetic fields continues outwards from the generating source (axon) until the energy of either is dissipated by the media they pass through.
- 4) The initial or Primary EMF produced by the afferent axons (Proposition R7 2)), propagates into the surrounding neuronal tissue within Layer VIb causing the production of electrical currents in the surrounding uninsulated neurites (small,

unmyelinated projections from the axon) of this layer. More specifically, I propose that the horizontally orientated unmyelinated neurites of the Large Fusiform Neurons (LFNs) within Layer VIb of the Cerebral Cortex are stimulated to produce a current because their uninsulated surfaces are directly exposed to the field emitted by the Primary EMF. In contrast, although the insulated neuronal tissues are exposed they are not affected.

- 5) The morphology of the LFNs is similar in shape to two semi-irregular cones attached at their widest section, oriented lengthwise into vertical columns. In keeping with the cone metaphor, the axon of the LFN passes through the opening at the top of the upper cone, continuing onward until it passes through the bottom of the lower, inverted cone. The uninsulated neurites project away from insulated central axon filling the space described by the cones.
- 6) Given this morphology, because the horizontally oriented neurites in the middle region of the axons is the widest in this area they project out the furthest from the vertically oriented axon, and are the most likely to physically interact (touch) with similar regions of the neighbouring LFN neurites within Layer VIb. The physical contact between the neurites in these shared regions creates an integrated circuit, allowing the individual electrical impulses of the individual LFNs regions to move into the middle regions of neighbouring LFNs, and possibly averaging the effects of the current over a larger area.
- 7) The electrical current within the middle region of the LFN can then produce its own propagating electro-magnetic signal and affect the other neurites described in (5). In other words, the current created by the Primary EMF within the neurites in the middle region of the LFN axons produces a Secondary EMF.
- 8) As a result of the Secondary EMF, electrical currents are produced in neurites in the space described in (5) above and below the middle regions of neurites. The current in the stimulated uninsulated neurites then moves toward the central vertically oriented LFN axon. However because this signal is weak, it only creates sub-threshold levels of stimulation within the axon. As such, they cannot cause the LFN axon to product an electrical impulse.
- 9) Once the initial input of (2) has been processed by the upper cortical layers and is travelling downward to leave the Cerebral Cortex or is about to re-enter another portion of the cortex, it passes back downward into Layer VIb through the vertically oriented axon of the LFN.

- 10) As the electrical current passes downward through the vertically oriented axon of the LFN it slows down. As per (7) and (8), the frequency of a neuron and its processes' current being directly proportional to its caliber, the stimulated smaller LFN neurites can affect the electrical state of the larger axons, causing the faster current within LFN's larger caliber axon to slow down. In other words, although the current within the stimulated neurites is insufficient to create an action potential within the LFNs, the interference created by them within the LFN axon is still sufficient enough to reduce its frequency.

- 11) With the neuronal interference being a by-product of the caliber of the middle region of LFN, which is similar throughout the cortex, this implies that the divergent axonal pulses/current occurring throughout the cortex could be reduced to a similar amount (and will continue to do so the more averaged the initial current is, (6)) and, at the same time, be different than, or non-linear to, the frequency that created it (1). This is Frequency Modulation.

- 12) Furthermore, due to the combined strength and duration of the current in the middle region of the LFN, the Secondary EMF has sufficient attractive power to act as a trophic substance, causing the uninsulated neurites on either side of the volume with the hypothetical cone to grow toward it.

- 13) This growth may cause the neurites to come into physical contact with different neurites within the volume of neurites surrounding the LFN axons.

- 14) Due to this, the electrical pulse entering the LFN can take a number of divergent pathways as it travels to the bottom of Layer VIb. Either, a) solely through the axon, b) solely through the neurites that surround the axon, or c) an admixture of both.

- 15) When the electrical current contained within the divergent pathways conjoins in the lower part of the vertically oriented axon the individual electrical pulse will either be 'in' or 'out' of phase with each other. Electrical impulses that arrive at the same time will be 'in' phase and will strengthen the output of the LFN, and those electrical impulses that arrive not at the same time will be 'out' of phase and will weaken the output of the LFN. In theory, this process can modulate the strength of the electrical output coming out of Layer VIb of the Cerebral Cortex.

- 16) This 'in' or 'out' of phase increases or decreases the amplitude of the output of the Cerebral Cortex in a non-linear fashion to the strength of the input. This is Amplitude Modulation.

- 17) Although each LFN has a unique profile of neurites within the hypothetical cone, thereby creating the potential for an enormous range of different levels of Frequency and Amplitude Modulation, and creating electrical instability in the Cerebral Cortex, this in theory does not happen. In the context of Non-Linear Existentialism, I will define instability as variation in an energy signal created by an energy source that is non-linear to the input that initially created the stimulated energy signal. Due to the large number of physical overlap between neighbouring LFNs, and according to Central Limit Theory, the extremes and variances that can be produced by the individual neurons are reduced, but not eliminated, as the population of interacting neurons increases. Therefore, as per 6), individual levels of variance can be drawn toward an average, but do not necessarily reach it.

Proposition R8

Based on this model, it is more likely that there will be higher levels of non-linearity/instability produced by the proposed systems theoretically responsible for producing Amplitude Modulation than for those producing Frequency Modulation. Or put another way, it is more likely that there will be larger variations away from the average electrical amplitude of the cortical outputs than there will be variations away from the average frequency of those outputs. As previously stated, Frequency Modulation is a function of neurite caliber and not neurite length, whereas Amplitude Modulation is a function of neurite length and not neurite caliber. With LFN neurites having a similar caliber throughout the Cerebral Cortex this characteristic reduces the degree of variation in the frequency of the affected neurites, whereas because neurite length is more apt to vary throughout the cortex, the degree of change in amplitude is theoretically higher.

Proposition R9

The non-linearity of Thought is created incrementally and additively. This means that each processing area or unit, which I will refer to as Frequency Amplitude Modulation Processing Unit (FAM PU), creates a increment or quanta of non-linearity to the input signal, and if the signal is processed further by additional FAM PU further increments of non-linearity are added together. However, due to the repolarization of neurons within the chain of related neurons, the overall amount of non-linearity that can be added at one time is limited.

Proposition R10

Each time an electrical signal is processed by the FAM PU, the output reacts with the related stored neuronal patterns in the CNS, most of which occur within the Cerebral Cortex (CC). The output includes groupings/pairings of the input and output patterns and the related level of cortical stimulation created by such groupings/pairings.

Proposition R11

As per Section I, Energy, and the attributes of a developing system that interacts with energy in the environment, the primary aspect of this system appears to be to manage some level of electrical neuronal energy in the CNS, and not the references attached to them so that they may be understood by the person and/or communicated to others. Based on this hypothesis, it could be suggested that various components of the CNS have developed to maximize the highest sustainable amount of neuronal energy stored within the CC.

Proposition R12

As with any other sustainable systems that manages energy/change, it is likely that the energy in the CNS is controlled and/or regulated via some form of Feedback Loop.

Proposition R13

I would suggest that the highest level of sustainable neuronal energy in the CNS would be set at the beginning of the person's life. At the time of its formation there would be very few pre-existing patterns in the Cerebral Cortex that should or would decrease the overall level of neuronal energy. I will refer to this level of neuronal energy as the Primary Needs Base Line Activity Level (PNBAL). As the name implies, the activity of the operating sub-systems and/or neuronal patterns within Central Nervous System have not been abstracted. The level of PNBAL present is primarily due to the energy generated by those systems that monitor and control fluid levels, breathing rate, sugar levels, heart rate and the like, which are, by their very definition, (physiological) needs.

However, as the person develops, modulation inherently creates incongruences within the created and stored neuronal patterns. In the context of NLE, I will define incongruence /interference/instability, as physical states (neuronal patterns) that are a result of the system being non-linear with the primary energy source interacting with the system. I will refer to this as the Non-Optimal Wants Base Line Activity Level (NOWBAL). However, in what I will refer to as Ongoing Cortical Restructuring, with cortical neuronal pattern connections being continually subjected to non-linear instability, they are kept in an unstable or fluid state that is more likely to be changed when exposed to input. And if this new input increases the NOWBAL, then a feedback system could lead to its incorporation.

Proposition R14

Within this context, I propose that the primary goal of life is to reduce the difference between the PNBAL and the NOWBAL. This relationship is implicit in the formula: $RI = 0$; where RI stands for Residual Incongruency and is representative of the potential state of incongruency within the CNS, or put another way, is the potential for the production of electrical instability in the CNS if they are stimulated. If stimulated, they become actual. I have used this term to differentiate it from Instantaneous Incongruences (II), which reflects the level of electrical instability created by the current/actual activities of the person. Instantaneous Incongruences outputs from neuronal systems responsible for meeting a person's basic physiological needs. With II reflecting the daily current stressors which need to be present and resolved so that a person can live, and RI representing the unresolved stored neuronal pattern incongruences, RI can be zero in a living person, but II cannot.

Proposition R15

I suggest the proposed energy management system is controlled primarily by a Positive Feedback Loop (PFL), where the components of the system endeavour to maximize the sustainable levels of neuronal energy in the cortical regions of the CNS. That is, it is developed by interacting with the environment to decrease the energy difference between the PNBAL and the NOWBAL. And without the effects of incongruent neuronal patterns, which are inherently produced, the level of neuronal energy would continue to move away from the initial PNBAL, as would be predicted by a system controlled by a PFL.

However, this does not mean that when the initial incongruences are resolved that the level of neuronal energy would increase to levels above the PNBAL. The main reason for this limitation is the residual effects of the initial incongruences on the system. While the initial incongruence may be resolved, the means by which they were resolved have changed input/output pairings within the Cerebral Cortex. As such, an efficient and effective system would be one that has learned that stimulation above the PNBAL is dysfunctional. In comparison, systems that have not learned this lesson, might actively seek stimulation that could cause neuronal excitation to go above the PNBAL, and be negatively affected by it. Such systems are not sustainable. See Proposition PRE2.

Along with the primary Positive Feedback Loop, is the continual functioning of the more primitive Negative Feedback Loop. The Negative Feedback Loop function is to control/regulate the levels of resources (oxygen, blood sugar, etc.) that are needed for the person to live. Therefore, the overall picture of the electrical profile of the CNS would start at the maximum level of sustainable neuronal energy, or PNBAL, and then, through the acquisition of the aforementioned incongruences, decrease the level of cerebral energy until the system had the necessary capacity to counteract the negative reactions it had to the environment. Superimposed upon the overall shape is the standard electrical profile of a Negative Feedback Loop. Given this, the system can be described as a Positive-Negative Feedback Loop that is modulated by the FAM PU.

Proposition R16

Given my current understanding of human neuroanatomy, the following is suggested as the way the theoretical Positive-Negative Feedback Loop management system would operate:

Positive Feedback Loop

- 1) Variable being monitored/controlled: Cerebral Neuronal Energy as produced by the stimulation of interconnection group of neurons within the Central Nervous System, many of which are affected by the Ongoing Cortical Restructuring (as per Proposition R13) of neuronal patterns within the Cerebral Cortex (CC).
- 2) Sensor: Detects changes in the variable being monitored and controlled, and sends these changes to the effector. This involves the current and summated level of excitation in the CC being sent to the Hippocampus via the Fornix.
- 3) Integrator: Brings together the current state of the system and compares it to the set point. The current electrical state or Non-Optimal Wants Baseline Activity Level of the Cerebral Cortex is compared at the Hippocampus to the Primary Needs Baseline Activity Level.
- 4) Set point: The 'normal' quantity of the variable the system is designed to monitor and control. This is the Primary Needs Baseline Activity Level which is stored in the Hippocampus and associated structures.
- 5) Effector: Part of the system that brings about a change in the variable being monitored and controlled back to the set point. This would occur in the Amygdala, related nuclei and pathways. If the level of excitation is to be increased, the Amygdala potentiates the cerebral patterns that created it, and if the level needs to be decreased, the Amygdala inhibits the cerebral patterns that formed it.

Negative Feedback Loop

The overall level of CNS neuronal energy is also regulated/controlled by the Negative Feedback Loop (NFL). However, the set points for the NFL are primarily monitored and controlled via the physiological systems that they regulate, such as blood sugar levels, osmotic pressure and carbon dioxide levels, whereas, for the energy produced by Cortical Neuronal Patterns they are regulated by the Positive Feedback System monitored/controlled by the Hippocampus. Due to this, it is very possible that diametrically opposed outputs and resultants behaviours may be produced for the same input. For example, the NFL might cause the person to eat more, whereas the PFL, might cause them to eat less.

Proposition R17

There are two major physiological constraints that limit the amount of non-linearity that can be added to the signal per time period. As mentioned in Proposition R9, not only will the neurons within a pattern eventually repolarize, according to Information Theory, there is a limited amount of non-linearity or noise that can be added at one time to a linear signal before it is overwhelmed by the noise. Therefore, by virtue of its physical parameters and interactions with surrounding areas, and Darwinian pressures, the FAM PU normally produces low levels of non-linearity to its input signals, which will not overwhelm the input. To recap, Non-variable or Frequency Modulation allows multiple input signals of the same event to be co-experienced. Whereas Amplitude Modulation produces varying levels of variability in how each input signal is perceived by the person (Proposition R8) at sub-critical levels with the cortex and associated neuronal pathways so that Ongoing Cortical Restructuring (as per Proposition R13) can occur without subverting the signal.

Proposition R18

There is an important relationship between thought, language and words. I believe that thought, which has been defined as a by-product of the FAM PU (Proposition R4), is not only a reflection of a non-linear process, it is also punctuated and stabilized externally by the linearity of language and words and other forms of Quantity – Referential Knowledge (Proposition P5) such as ideas/concepts and the like. Not only does language and words supply a person with a common means of communicating with others within the society, language and words are, within this context, neuronal patterns that are created and used by the described system to express and manage internal abstraction (Quality - Referential Knowledge, Proposition P5). This idea was also expressed in Proposition R17 and implies that as neuronal patterns derived from thought and experiences becomes more complex, these patterns become signposts of such accumulations.

Due to this ability, once a person enters an environment/society with complex patterns that their CNS is able to recognize, that level of complexity in the brain can be stimulated and further complexity generated from the new starting point. Without such shared stabilization points, the necessary levels of non-linearity could not be readily accumulated in the CNS, and due to this, not allow the person's nervous system to abstract to the necessary levels within their lifetimes to create the present society (see Proposition H1).

VI. Philosophy

Proposition PH1

Most philosophical systems appear to concentrate/discuss/hypothesis/theorize the secondary or abstract aspects of what it is to be human (Proposition P2) and not with the fact that to be human is to be a physical being that interacts with its environment.

Proposition PH2

By focusing on the effect (idea, concept and the like) and not the cause (nervous system) of these effects, most philosophical systems do not appear to understand the requirements and restrictions of biological systems that interact with the environment.

Proposition PH3

Because the Existential Viewpoint appears to be more concerned with concentrating/discussing/hypothesizing/theorizing about the individual experience or phenomena of being human, implying that this viewpoint is strongly associated with sensations and how those sensations are created, its seminal features should be, and are, reflective of a system that is biologically based. These features appear to be present in the following fundamental aspects of Existentialism¹: 1) People 'stand out' from the environment; 2) people's thinking is unique; 3) and self-relatedness/authenticity.

Proposition PH4

I would suggest to 'stand out' is to be different or to be able to feel that you are different from the environment. As proposed by the present theory of Non-Linear Existentialism (NLE), Frequency and Amplitude Modulation causes the person to become non-linear to the environment. The physical incongruences/interference/instability created by this process indirectly imbue the person with a sense of self which I believe is intimately related to what is commonly called Anxiety. Anxiety being a sense of unease created by uncertainty brought about by the incongruences/interference/instability occurring in their neuronal patterns.

From a neurophysiological perspective, anxiety could be viewed as a form of neuronal pattern instability. It is possibly that the affective state of anxiety which is so central to Existentialism is not only the result of excessive Amplitude Modulation reacting to the stored neuronal patterns in the Cerebral Cortex (being brought about by excessive levels of Frequency Modulation), but also the stored incongruent neuronal patterns in the Cerebral Cortex interacting and reacting with each other. To emphasize the difference, the experienced electrical instability in stimulated cortical neuronal patterns produced by Amplitude Modulation could be referred to as Inherent/Non-Pattern Anxiety and the experienced electrical instability caused when incongruent cortical patterns are co-stimulated as Acquired/Pattern Anxiety. Furthermore, while anxiety is a natural aspect of a person's existence, if the instability becomes excessive because of either or both types of anxiety, the person could experience dysfunctional levels of anxiety, which can lead to Emotional Instability (Proposition ES1).

¹ This list is adapted from MacQuarrie, J. 1973. *Existentialism: An Introduction, Guide, and Assessment*. Markham, Ontario: Penguin Books .

Proposition PH5

Due to cortical electrical output from the FAM PU (Thought) the cerebral patterns are in a state of continuous change (Proposition R13), creating conditions which may allow for the formation of different neuronal patterns that may improve the pairing between neuronal inputs and outputs. Neuronal Patterns that may maximize the sustainable levels of neuronal excitation in the CC toward PNBAL are favoured. For those with a higher level of instability, and more uncommon pattern development, they will have more ‘unique’ Quality-Referential Knowledge (Proposition P5).

Proposition PH6

In order for a person to have positive self-relatedness or to be authentic, that person’s thoughts and actions have to be true to their own uniqueness. If an individual is primarily an energy maximizing system composed of linear and non-linear neuronal subsystems, producing various levels of linear and non-linear output, the uniqueness of the person is primarily due to the inherent levels of each type of linearity by themselves and when compared to each other and the person’s ability to maximize the sustainable levels of neuronal excitation within the CNS. Given this, and in terms of the Information Model, with the linear subsystem output being represented by S (signal) and non-linear by N (noise), each person would have a unique ratio of S/N.

However, given the present usage of terms incongruency/interference/instability, this equation should be revised. In this context, I propose that N is replaced by I, where I represents the non-linear neuronal elements, being the incongruent cerebral neuronal patterns and their related levels of electrical interference and instability. And by placing the I in the numerator instead of S it further emphasizes the importance of the non-linear in the uniqueness of a person. Therefore, the term I/S is more representative of the current discussion than S/N (Signal to Noise). Using this terminology, an ‘Authentic Person’ not only knows and appreciates the strengths and weakness of their own I/S, they can and do undertake the necessary measures to maximize it.

Proposition PH7

The proposed weaknesses of the Existentialistic Viewpoint include: excessive individualism, lack of social morality and bleakness/nihilism. These issues appear to stem from the central aspect of Existentialism, that being the separation of the person from the environment. While separation in Existentialistic writing does not discuss the possible biological mechanisms that could be responsible for it, the descriptions are consistent with NLE. Taken by themselves, these three failings appear to be natural and irreconcilable aspects of Existentialism. However, before rendering a final decision, I believe discussing this matter in a more objective, quantitative and long-term perspective would give us a clearer picture of whether these failings are necessarily true.

The quantitative approach I will be using in this section is based on what I refer to as the Self-Line Function (SLF). The SLF illustrates how the processes of Separation and Integration are theorized to take place.

Separation occurs when a person is not harmonious with the environment and themselves, and Integration in the opposite. Imagine a graph that has Complexity on the independent axis (horizontal) and Order to Disorder on the dependent axis (vertical). Complexity reflects the number of neuronal patterns in the Cerebral Cortex, and Order to Disorder the level of incongruity in these neuronal patterns. A 45 degree line projects away from the origin (where Complexity and Disorder are both 0) cutting the area described by the line into two equal but inverted triangles. I refer to this as the baseline. I propose the Self-Line Function depicts the normal cortical electrical states of the Positive-Negative Feedback Loop as it is modulated by the FAM Processing Units through the course of a well-adjusted person's life. Its eight (8) areas of development are as follows:

- 1) Simple Balance – Output of the Self Line Function follows the baseline between Complexity and Disorder/Order, meaning Complexity balances the amount of Disorder/Order in the CC. The slope of the baseline indicates that with more Complexity there is a natural tendency toward increased Disorder due to the increased probability of incongruent patterns being produced between them.
- 2) Separation Toward Disorder – As the result of the cortical reaction to the electrical instability from the FAM PU (Inherent Anxiety) and from the incongruity between stored neuronal patterns (Acquired Anxiety), the output of the Self-Line Function moves towards Disorder. Separation or Self-Awareness (Proposition T1) occurs when the CNS achieves sufficient non-linearity to input to create a reduction in cortical excitation. In response, the non-self or environment may become that which is more likely to be associated with a reduction in cerebral excitation, or that, which causes Acquired Anxiety.
- 3) Physical Plateau – The ratio of Complexity to Incongruity (Disorder) stored in the Cerebral Cortex is at its maximum. Separation from the environment, and the society it is control by, or a symbol of, is at its strongest.
- 4) Integration Toward Order – The ratio of Complexity to Incongruity (Disorder) begins to decrease toward baseline levels; Acquired Anxiety begins to decrease. Although the inherent instability (Non-pattern Anxiety) does not and cannot decrease, its existence can possibly allow less incongruent patterns to form (Cortical Restructuring). In most cases a decrease would occur when the person becomes reasonably knowledgeable about the rules of their society, but not necessary understand them (see Proposition PH11 for explanation).

- 5) Complex Balance – The state of the Self-Line Function is on the baseline; similar to Simple Balance but with a large number of neuronal patterns that are incongruent (Disorder).

- 6) Metaphysical Plateau – Through continual Cortical Restructuring, the output (neuronal patterns) of the SLF begins to integrate with its previous interpretation of the environment, thereby losing some of the neuronal patterns that initially caused it to excessively separate itself from the environment. In the present context, Metaphysics means the loss of definable states that the person/system might have used to define itself, most of which are based on a less-developed understanding of the environment. With incongruity being defined as a physical state that is non-linear with the primary energy source, at this stage of development the Self-Line Function is switching over to an internal state that is more congruent with the I/S of the person/system.

At first, the person endeavoured to escape from the acquired decrease in neuronal energy which they associated with the environment without the necessary levels of qualification. And since the environment is inherently non-linear with the I/S of the Cerebral Cortex, not only were the initial decrease in neuronal energy not alleviated, it was increased. It was only when the person realized that their internal incongruences might have been brought about by these former interactions, and how they might be reduced by adopting a less distorted view of the environment and themselves with it, could the overall levels of neuronal incongruences be decreased. Thus begins understanding.

- 7) Metaphysical Resistance – Although the level of integration increases, it is not at its maximum level. Due to the person losing neuronal patterns which they believe are essential to who they are, they resist the transition.

- 8) Metaphysical Acceptance – Output of the Self Line Function is fully integrated with a completely qualified understanding of the environment. The stored neuronal patterns in the Cerebral Cortex are interacting with the environment in such a way that almost all of the Residual Incongruences have reduced. Any remaining Residual Incongruences have effectively been turned into congruent incongruences. Another way of viewing this state is to consider the following. If the area between the baseline level (45-degree line) and the line described by the output of Self-Line Function is considered to be the level of energy within the system, both negative and positive incongruences/interference/instability would be equal at the end of this stage of development. Or, in other words, PNBAL is equal to NOWBAL, and RI = 0.

The above explanation is relevant to the issue of Existentialism and its apparent weakness because it can explain them as dysfunctional states of the system, and not as necessary inherent conditions of it. All of the apparent weakness of Existentialism, including excessive individualism, lack of social morality and bleakness/nihilism can occur if Integration does not occur. The inability of the person to fully reintegrate into the environment within the context of a their unique I/S state and the true condition of the environment may occur if the Positive-Negative Feedback Loop was dysfunctional due to a weaknesses in one of more components or as the result of the retention of highly entrenched incongruent neuronal patterns in the person exhibiting such viewpoints. For example, a person may be so strongly attached to their fear of the environment that they end up destroying some part of it as an indirect means of compensating for their fear. Or a person burdened by the memories of an ugly childhood, could be standoffish to others, be bleak in their appreciation of the world, and have a lingering wish for their own demise.

Proposition PH8

In Proposition PH 7, Part 6, the term Metaphysics was defined as the loss of definable states that the person/system might have used to define itself. In comparison, Metaphysics is usually affixed to ideas/concepts considered to be either super-sensible, and/or considering existence and/or Being (Ontology). Taken together, these similar but different definitions of Metaphysics ask what do we, as subjective observers, consider to be the fundamental principles of reality? And by extension, what is reality?

One of the core aspects of Non-Linear Existentialism (NLE) is the awareness that there is a pervasive uncertainty in our perception of reality. The key drivers of this uncertainty is not only the limits of our senses, but the FAM PU's ability to produce both Quality and Quantity and the inevitable distortions that can occur when the two standards are compared. For example, ideals (Quality), and not ideas, are offered as unchangeable standards used to support many of our habits and beliefs however, there are no naturally occurring manifestations of them within the environment (Quantity). In the context of NLE, I firmly believe that ideals are manufactured by us to manage our uncertainty. This was discussed in Propositions IP4 to IP6 in Section III, Imperfection and Perfection.

In this light, I believe the concept of Metaphysics, and subsequent statements concerning Reality, are a result of our present level of (mis)understanding of our own non-linear natures. With most philosophy being ultimately a study of ourselves, when the philosopher starts to remove what is linear, they reach what is non-linear or uncertain. When a philosopher attempts to compare a person to a beast, they come to a point in the process where there is still something unnameable in the man. And since it has been described in the present work as being akin to noise, it is neither a easy thing to describe or to measure. It becomes something to dismiss. It becomes uncertainty itself. As such, non-linearity creates uncertainty. Therefore, the idea of reality at this level of analysis appears to have no form, and due to this, becomes super-sensible/mystical.

Metaphysics therefore appears to study the necessity of instituting limits in the acquisition of knowledge and understanding because of experienced uncertainty. Due to the presence of unstable standards (Quantity and Quality) concerning Reality and Being (Ontology), and the subsequent conflict and uncertainty it creates, it has led to the belief that knowledge and understanding have absolute limitations. Using a rock, dog and a person to illustrate this point I assert the following, the being of a rock is more certain than that of the dog or the person, and the dog's Being is more certain than that of the person. Because the person's CNS has the highest state of incongruence/interference/instability of any known organism, it is most apt to create the highest level of uncertainty within and about itself. And due to this, the person also has the strongest tendency of any organism to produce real or manufactured certainty within its neuronal patterns to overcome this state. Faced with such a situation, Metaphysical studies try to determine what standards can be trusted.

Proposition PH9

Epistemology is the branch of philosophy that studies the possibility of knowledge and understanding within the various definitions of these concepts. In the context of NLE, the accrument of knowledge and eventual understanding of it occurs by way of neuronal patterns being adjusted to maximize the sustainable level of excitation in the Cerebral Cortex. This occurs via comparing transformed input (internal or external) to previously stored neuronal patterns to optimize neuronal energy. Differential Perceptions allows for the possibility of knowledge by allowing sensory information to be sensed, and Referential Knowledge allows for the creation of knowledge by comparing transformed neuronal input against itself and others. Understanding becomes a matter of testing and retesting what is believed to be knowledge within the widest context possible (see Proposition PH11).

Proposition PH10

As discussed in Proposition R18 concerning words and language, such basic neuronal patterns allow different cultures to form different visual (words) or auditory (language) signs/symbols to communicate amongst themselves. However, as societies build and grow the pressures of it complexities causes these words and language to reflect more of its particular aspects. And while this would constitute knowledge and possible understanding, it may lead to excessive separation of the person from themselves (inauthentic) due to the pressures of the organization which can have a different level of non-linearity. From this, I would assert that some of the information that many people are required to learn so that they may function in a highly-structured organization can be detrimental. While the basic requirements for functioning, is in and of it-self necessary, excessive pattern incongruences are dysfunctional. If, as part of 'normal' societal assimilation, certain neuronal patterns are learned by its members that are inherently incongruent to the person's I/S, there is a chance that this will decrease, and continue to decrease, the overall level of neuronal excitation of that person.

While some societies/organizations attempt to force compliance, others allow for growth. In such growth, personal Integration can be optimized allowing the person's neuronal structures to maximize neuronal excitation levels within their inherent capacities to capture and modulate input. Personal flaws can be reframed and improved upon when the person is allowed to take responsibility for themselves in a supportive society. Personal knowledge can then become truer because the references upon which the higher thoughts/ideas/concepts are built have a higher level of fidelity with the overall unfiltered conditions of the environment. While the person's sensory apparatus are inherently limited by what types of energy it can accept and transform from the environment, the way in which the referenced inputs are compared/contrasted to the self and others can be truer if the persons' I/S is not overly interfered with. Through this, they can learn in a manner more conducive with their own internal level of linearity.

Proposition PH11

I offer the following metaphor to highlight what Proposition PH9 and 10 were discussing, that being the difference between knowledge and understanding. Let us say that a number of people desiring a challenge are brought into a large room. Shortly they are informed by an officious looking person at the front of the room that they have to copy a three-dimensional object sitting on the floor. And if they copy it perfectly, they will achieve understanding of the object, or in other words, be aware of how it truly fits in with other items in the environment. The first person looks down at the object and draws it, however, the angles are all wrong and the picture they create does not look like the object at all. The next person, learning from the first, puts the object on a table in front of themselves and measures all of what they see against another object (reference) with a very accurate ruler. The picture is a great improvement, but since they only took measurements from a fixed position, the object was only copied perfectly from that limited perspective.

Before the third person attempts the task, she asks the second person why they didn't move to observe and measure it from the other sides. In response, the person says they assumed the officious person wouldn't let them move around the object. The third person realizes that even if this statement (knowledge) was true, it was irrelevant to the task of completely understanding the dimensions of the object, and decides to take measurements with the same very accurate ruler the second person used from all angles, resulting in a perfect copy.

However, when she takes the drawing to the official, she is told off; not for the quality of the drawing, but for moving to other positions/reference points in the room while drawing it. Instead of acknowledging the fact that the lady overcame the short-comings of her own eyesight by not only using tools that were much more accurate and precise than her own senses, but also using multiple references, the official clearly showed they were more concerned with enforcing what they were told to state (knowledge) than whether it was correct to do so. Nevertheless, because of the woman's own desire and ability to bring her knowledge into a fuller context she was able to achieve understanding.

Proposition PH12

Before moving forward, I want to offer a specific definition of Philosophy as well as Philosophical Thought. On March 20, 2018 I uploaded on Youtube a presentation entitled: Non-Linear Existentialism, What is Philosophy? Within that presentation, I have clearly defined this term, and those closely related to it. I have done this because I believe I had not sufficiently emphasised the following - that the subject matter of Philosophy is not environmental input and any thoughts related to them, but thoughts that are Philosophical in nature. As such, the definition is in two parts. Part I defined Philosophy as, the study of the Philosophical Thought of a person or group of persons. Philosophical Thought was then, that which occurs when a Sentient Being experiences elevated levels of neuronal incongruency,[interference] and subsequent neuronal instability, when considering differences between Quality and Quantity; and the possible ways to resolve/manage them.

Having defined Philosophy there then is the question of what is Psychology. Although this section is committed to Philosophy, I believe it is important to give a brief definition of what Psychology is within the context of Non-Linear Existentialism because the concepts are closely related. From my understanding, Psychology is the study of mind and behaviour. Therefore, given the previous propositions, this definition would become the study of behaviour and mind where the concepts of internal (Quality) and external (Quantity) standards are acknowledged [but] defined as having a linear relationship with each other. I offer this qualification because with Philosophy starting the process of defining the world, it appears to have resulted in each area of study borne from it to be, for the most part, strongly dedicated to the reduction of uncertainty, and due to this tendency, sometimes take what is inherently non-linear and treat it as if it was linear. And while the relationship may be linear for most beings, I believe it is non-linear for sentient Beings.

VII. Responsibility

Proposition RES1

Inherent in Non-Linear Existentialism is the concept of responsibility. As suggested, since Thought, and the formation of the individual is a by-product of the FAM Processor Unit working within the confines of a Positive-Negative Feedback Loop, in order for optimization to occur, neuronal energy can only be maximized if faults in the neuronal patterns are recognized and corrected. This may imply that it does not matter how they are corrected, so long as they corrected, but this conclusion is incorrect. To me, where possible, those who instigated the creation of the faulty patterns should correct the faults. Only then is understanding possibly. In the second paragraph of PH10, the following was stated, 'Personal flaws can be reframed and improved upon when the person is allowed to take responsibility for themselves in a supportive society'. At this point, I would even go further, and state that a truly support society would also instill within the person, that every member of the society, including the members of the governing bodies, are obligated to take responsibility for themselves. This does not suggest the person would be forced to do so, but the society should take every teaching opportunity to ensure the members of the society not only acknowledge the importance of responsibility but understand it.

Section VIII. Feelings

Proposition F1

When a person is consciously or subconsciously aware of an emotion or emotional state, they are said to be feeling the emotion or emotional state.

Section IX. Emotions

Proposition E1

Emotions are the level of neuronal stimulation and associated changes of neuronal energy within the CNS due to the interaction between the current subset(s) of neuronal patterns and the previous set(s) of stored neuronal patterns within the CNS. Emotions will have many different dimensions, including intensity, duration and breadth. For example, a person who just won the lottery will feel ecstatic (intense excitation), an emotion they will experience for a long time (duration) and will affect many (breadth) aspects of their lives.

Section X. Emotional States

Proposition ES1

If an emotion produces sufficient neuronal excitation/suppression within the Central Nervous System, the subsequent increase or decrease of neuronal energy can create excessive instability within the associated neuronal patterns that can interfere with the person's ability to function. Taking the former example involving winning a lottery (Proposition E1), if the person's reaction is excessive, they may become hysterical and be unable to function. This I refer to as Emotional Instability. Or in another scenario, a person may be overwhelmed by grief, a result of being exposed to a stimuli that causes a very intense reduction in neuronal energy that is pervasive and affects most ever aspect of their lives. Being so intense that it may result in them kill themselves to block out the suffering.

Section XI. Heuristics

Proposition H1

Heuristics or the heuristic technique is a process of not invoking all, or a substantial number, of neuronal patterns, which would completely link the causal members together. Therefore, heuristics can be referred to as a mental shortcut. As per Propositions P4 and R18, with many neuronal patterns being produced as abstractions of other simpler patterns, much of our communication, including written and spoken, are shortcuts and are often used. However, such shortcuts can be very detrimental especially if the person using the abstract terms does so without due care. A changing system can make previous conclusions built upon them meaningless especially if the terms are academically derived.

XII. Predictions

Proposition PRE1

From the Neurophysiological Perspective, the possibility of Non-Linear Existentialism can be considered noninvasively. If the Cerebral Cortex's primary function is to develop/store neuronal patterns with various levels of excitation when they are simulated, then it should be possible to conduct a longitudinal study of a person to compare the affective state of this person with the overall level of cortical excitation. If NLE is correct, in a person with minimal psychological impairments, the overall level of cortical excitation should be highest when they are young and old, and be the lowest in the middle. If this does happen, then the same person should have the most stable/desirable affective states when they are young and old and the lowest in the middle.

Proposition PRE2

From the Psychological Perspective, the possibility of Non-Linear Existentialism can be considered noninvasively. It is often observed that people undertake activities/behaviours that reason informs them are very harmful. And since a number of psychologist believe self-preservation is a fundamental trait of a person, it has to be asked that perhaps this is not true, and that something less abstract is more fundamental to the person. Based on this, the psychologist could be asked if the actions of people with addictive disorders, adrenaline junkies and the like may be undertaking such dangerous behaviours because they are, as predicted by Non-Linear Existentialism, attempting to maximize their own cerebral levels of neuronal excitation.

Proposition PRE3

From the Psychiatric Perspective, the possibility of Non-Linear Existentialism can be considered noninvasively. Non-Linear Existentialism predicates that many Psychiatric Disorders are due to excessive instabilities produced by faults within specific components of the Positive-Negative Feedback Loop, including the Frequency Amplitude Modulation Processing Units. For example Depression would be due to sustained low levels of cerebral excitation; General Anxiety Disorder would be due to excessive levels of Amplitude Modulation brought about by excessive levels of Frequency Modulation; and Schizophrenia would be due to inconsistent levels of Frequency Modulation within the Cerebral Cortex.

Summary

The practice of Philosophy can be considered to be one of the first forms of humanity expressing itself. At the start of civilization we looked around ourselves and became aware that we were separate from our environments. This made us both joyous and fearful. Quickly, members of many societies began to ask how we fit in, and why we were so different from the other animals that roamed the world. Having no objective concepts of physics and biological, we immediately began to rely on the more available outcomes of our bodies, including our basic emotions and a multitude of superficial perceptions, instead of considering the fundamental relationship between ourselves and the environment that made us.

Without an objective reference, a meaningful measuring stick, humanity began to use its imagination. Unfounded ideas and perfect ideals soon became more important than some of the better known and understood tools at hand. And if some of us turned away from the impossible and toward that which could measure and be measured, others became upset because they believed that something as wondrous as a person could not be reduced to simple processes. However, this is incorrect, because in truth, we are just the sum of what physiology has to offer.

Nevertheless, we are more than our own initial imperfection, our own inherent uncertainty. Humans can overcome themselves by accepting this imperfection and understanding its cause.

By employing a more environmentally based reference of how the neuronal patterns may be developed, it should be possible to restructure our knowledge and understanding along more truthful lines. Although we did come from the environment, we are not limited by it. And if we only relied on it for our existence, we would never be more than a cloud of dust. Due to the basic structure of the Central Nervous System being able to amass and compare environment input to that which we have already been exposed to, and through marking it with incongruency/interference and instability sentience has been won.

However, although some people are more stained by this process than others it does not mean that those individuals and those who listen to them should be against the environment. Through the knowledge of energy and how it can be expressed in non-linear systems such as ourselves, the action of separation and integration can be better understood by anyone wishing to see their place within the world.