Correlation Between Neuronal Energy, Interference to Signal Relationships and Human Functionality

Written by Andrew Brooks
2012@Charities of Life

The complexity of the human condition, does not lend itself easily to description, however, when displayed in its least abstract form, the correlation between the controlling variables and their outcomes may be more understandable. As with most illustrations depicting a process, the x-axis of this system would contain the time function and is, as postulated in the introduction, created by changes in a physical substance. The y-axis or outcome(s) are the Neuronal Energy of the Nervous System in response to the changes that created time. If the change responsible for time is due to multiple substances, then there will be multiple time frames of reference, whereas, if there is only one physical substance producing the change, there will be only one time reference.

Having broached the concept of Time, it is also necessary to clarify the related phenomena of Interference. When two or more electrical impulses come into contact with each other, they can either increase or decrease each other's strength, the first is referred to as additive effect and the second an non-additive effect. Referring to the non-additive state as interference, and in reference to Non-Linear Existentialism, this type of energy interaction can be further classified as being either creating Primary, Second or Tertiary Interference.

Primary Interference or Noise is neuronal input that is produced by the Central Nervous System to reduce interference from environmental sources. Secondary Interference is the interference that Noise is reducing, which in this case is Temporal Incongruency. Tertiary Interference refers to Pattern Incongruency that occurs due to Thought and has it own ability to change impulse frequency (timing). Since this form of interference only occurs at the level of the pattern created by the individual, it is a localized event and not directly related to, as Temporal Incongruency is, external input.

Another important relationship to consider in this overview of Non-Linear Existentialism is between Neuronal Energy and Human Functionality. The primary unit of the Human Central Nervous System is the Neuron, producing electrical simulation when excited. And although there are many inputs into the brain reducing specific output so that unwanted behaviors are modified, it has been observed in Neuroscience and Medical Research that the more positive simulation the brain receives and produces, the better able the person is to interact with and be aware of themselves in the environment.

Based on the preceding comments, optimal functionality would occur in a person with the least amount of interference between the connections interlinking their representations of the external world. While it is necessary to reduce stimulation from inputs to indicate to the person that certain inputs are harmful, it is also very important to create patterns in the nervous system that indicate a substance or process is not harmful. The better able the individual is to determine what is harmful and what is not harmful for themselves, using a internal system of positive simulation as the baseline for such a comparison, the better they will function.

Five (5) Stages:

The previous page briefly outlined some of key concepts that have been offered in describing the fledging theories related to Non-Linear Existentialism. With this current article being a part of the summation, none of the principles are new, just the details. This treatment is, as mentioned, just a review, one given so that it may be possible to combine a collection of relatively simple ideas to explain the actions of a creature as complicated as ourselves. To this end, a written overview of how Human Functionality can be optimized though changes in the Interference to Signal ratio to increase Neuronal Energy is provided in the following sections with a graphical representation given afterward.

1) External Feedback Network (EFN)

- Various frequencies and amplitudes of energy being emitted by the external environment (Signal) interacts with the surface of the organism, causing a Representation of this energy (Neuronal Energy) to occur within the organism's nervous system.
- Although multiple time frames (T_1) are evident in this energy, due to the low level of integration (not centralized) in the majority of the Representations during this period, such interference does not grossly affect the organism's ability to survive at this level of incorporation of environmental energy. Nevertheless, as the stage progresses Secondary Interference, or Temporal Incongruency increases.
- As such, the formation of Neuronal Patterns occurs at an Exponential Rate while Neuronal Energy produced by them is generated Geometrically due to the inherent incongruencies (Temporal) that are generated when dissimilar patterns interact and interfere with each other, thereby, reducing overall Neuronal Energy.
- The feedback mechanisms controlling the acquirement of energy (heat, food, water, etc) are all casually linked to the environmental inputs and can be referred to as a External Feedback Network and have the outside as a reference and are therefore an example of Quantity.
- This type of feedback system is referred to as Linear (dashed line) in that the Neuronal Energy produced by the Neuronal Patterns formed has a predictable relationship. Due to this, there is no vertical fluctuation in the Neuronal Energy.

2) Temporal Interference Plateau (TIP)

- When the Temporal Incongruencies between the inputs from the environment reaches a maximum point of interference this will cause the level of Neuronal Energy to plateau even though Neuronal Patterns are still being produced.
- The amount of this neuronal energy deficit, as shown by the area below the dashed line, will become a driving force in the development of the system (or that which creates further Neuronal Patterns).
- The energy plateau will remain until the necessary internal stabilizing force, or Noise (N), has been created to not only reduce the original, but also the additional Temporal Incongruities created by the continual generation of Neuronal Patterns.

3) Temporal Interference Reduction (TIR)

- With a sufficient level of Noise being internally generated, there will be a dramatic increase in Neuronal Energy level as it approaches Integration (T_2).
- The rise in energy allows for the reestablishment of the previous Linear State.
- The positive rate of change in the Signal begins to decrease to reflect the non-finite complexity of the environment.

4) Integrated Feedback Network (IFN)

- Integration/Binding has occurred and there is now a singular time frame of T_2 controlling external representations and their pairings (production of patterns) within the Central Nervous System (CNS).
- The expansion of the dashed line into various energy levels is the result of the previous Linear (dashed line) condition being mixed with the Non-Linear (solid line) process.
- The level of Noise being produced will not change unless the postulated neuronal tissue emitting such interference, Layer VIb of the Cerebral, is damaged.
- Although there is integration, the development of the Individual does not occur unless there is a further increase of Pattern Incongruency within the CNS. At this level of Neuronal Energy the individual is created by virtue of the range of Interference to Signal ratio that is being produced which is able to create sufficient level of dissimilarity between the Signal patterns and internal patterns. At this stage, the organism, or subject is said to be thinking and as such, thinking is a form of Interference that is created and reduced by an individual. Furthermore, the phenomenon of Quality occurs due to the unique reference point of the individual.
- Whereas in TIP interference decreased Neuronal Energy, in IFN it is necessary for the system to be fluid so that the incredible number of patterns and energy describing the relationships between external inputs can be optimized.
- The areas above the dashed Linear Line shows that the previous energy deficit created in Stages 2 and 3 has been offset and made positive.
- Beyond the minimum level of neuronal energy (MINo, below of which would be equal to brain death) there is Area C which is termed NOWBA (L) dysfunctional. Behaviors and thought patterns at this level are not conducive to the ongoing survival of the individual.
- Next energy level is AREA B, occurring between MAXso (Maximum Sustainable Output Energy, or PNBAL) and MINso (Minimal Sustainable Output Energy). This area is where the NOWBAL functional states take place.
- The highest energy state is Area A, and is from MAXo (Maximum Output) to MAXso (Maximum Sustainable Output Energy).
- The dashed linear line between Area B and C is there to indicate that if the system remained Linear, there would be a lower inventory of neuronal patterns and subsequent behaviors that could be summoned by the individual to cope with varied environmental conditions. As such, a linear system is either functional or not functional and does not have gradations of either, a paradigm that does not lend itself to the survival of an organism in an ever changing environment.

5) Excessive Interference – Please refer to Diagram at the end of the text.

- When there is an excessive ratio of internal Interference to the external Signal this overwhelms the capacity of the Signal to dampen variance, and causes the system to loss its integrity.
- In this stage Area A and B decreases in their Neuronal Energy states, while Area C increases. The change in the profile of the graph occurs because Area A and B depict functional states, while Area C is a dysfunctional region.
- When there is too much Interference beyond the maximum Interference to Signal ratio, the Neuronal Energy decreases quickly and greatly decreases functionality because there is insufficient energy to stimulate the necessary patterns.

Imbalances of the Proposed System

In addition to the above description characterizing the fundamental states of a Nervous System reacting to an evolving environment, it is also important to briefly discuss imbalances in this system. In situations where the amount of Interference to Signal (I/S) ratios waiver, causing either too much Interference or Signal, or if the levels of Neuronal Energy do not properly correlate with the complexity of the Neuronal Patterns producing them, the following five (5) scenarios are hypothesized to occur.

1) Excessive Energy - For any given I/S ratio there is a Maximum Output which can occur but cannot be sustained because it is higher than the Primary Needs Baseline Activity Level (PNBAL), which was set in the early stages of development. Input that exceeds PNBAL (or Maximum Sustainable Output) will damage the nervous system. Since the PNBAL defines the maximum endogenously produced energy levels, such energy is the by-product of neuronal excitation produced by behavior that circumvents normal safety mechanisms of the CNS (i.e. Stimulants).

2) Inadequate Energy - In situations where the Neuronal Energy level is lower than the Non-Optimal Wants Baseline Activity Level (NOWBAL) that is needed to remain functionality, this will reduce the organism's ability to survive. It could be surmised that below Minimum Sustainable Output energy the individual is Clinically Depressed and below Minimum Output they are Brain Dead.

3) Reduced Primary Needs Baseline Activity Level - As mentioned, at the early stages of cerebral development, the PNBAL is set at a level which reflects the highest sustainable amount of energy that can be produced by the neuronal system. In later life, it is possible that once the Pattern Incongruencies (also referred Residual Incongruencies) have removed, this level will be reestablished.

   However, it could also be suggested that for some individuals the PNBAL is set too low, either by genetic abnormalities or aspects of the environment. While this might imply that such a person would only be in a condition where they are unable to reach the normal PNBAL for that state of I/S, it could also be inferred that the person may not have the necessary change in energy level in the NOWBAL functionally area to experience what is right and wrong.

While the PNBAL is reduced, it does not mean that Area B is reduced as well. And with normal change in variances (fluctuations in Neuronal Patterns employed by organism to live produces fluctuations in Neuronal Energy) in Area B still occurring, the individual may continually experience energy below the minimum sustainable level. Through this blunting effect, and reduction in emotions (being the energy change away from or toward the present NOWBAL and PNBAL), the necessary changes in energy which can modify a person's behavior, may be absent and may lead to what is termed as Anti-Social or Psychopathic tendencies.

4) Excessive Interference - If there is excessive Pattern Incongruencies it may overwhelm the Signal. If the individual is unable to rebalance this by increasing the Signal or decreasing the Interference, the person will suffer high amounts of incongruities between their patterns. This may imbalance lead to Anxiety Disorders.

5) Excessive Signal – If there is excessive Signal occurring in the Central Nervous System, it may overwhelm the Noise. If the individual is unable to rebalance this by decreasing the Signal or increasing the Noise, the person will suffer from multiple time frames. This may imbalance may lead to Schizophrenia.