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The Biology of Human Understanding
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There is ample scientific proof for the ability to universally categorize data based on structures exhibited in biology and in particular, cellular development. Detailed research indicates that it is possible to establish a scientific theorem, which formulates the basis for a valid methodology concerning human behavior, cognitive analysis and comprehension.

As an example, let us consider this cellular intelligence definition; “An intelligence cell contains a compartment which is capable of collecting and integrating a variety of physically different and unforeseeable signals as the basis of problem solving decisions.” There are numerous findings that clearly show cells have cognitive qualities.

Biological systems are a domain in which everything is based on a dynamic equilibrium between systems. This connects to complex systems, which studies the common properties of systems in nature, society and science. This leads to new approaches for comprehension models. These new models will stimulate thinking; create improved insight, and clarity. This is due to the principles discovered within biological development. This enables groundbreaking approaches to problem solving. For example, cellular development has unlocked key principles of organization.

The pursuit of biological or Natural Systems enables multiple customized solutions, rather than a one solution fits all approach.

Relatively little is known about the mechanisms that produce the complex organization of a living cell. Understanding the mechanisms that generate patterns and organization in cells has been identified by natural science as a key challenge for the millennium. However, that took a dramatic turn when Watson and Crick of DNA fame, described Chaos as patterns in nature. A number of brilliant twentieth century scientists such as Von Bertalanffy, Ilya Prigogene, David Bohn, and Karl Prigram, all related that everything in the universe is comprised of systems. There are closed systems, in which components interact only among themselves, and open systems, comprised of components that interact with each other only after receiving inputs of matter, energy, or information from an outside environment. All of these scientists believe that systems are dynamics patterns of organization in which the system as a whole is more important than its constituent’s parts or hierarchies.

A Symbolic Model of Comprehension

Examples of Microbial Intelligence

1) Formation of biofilms (slime) requires joint decision by entire colony.
2) Under nutritional stress bacterial cells can organize themselves so as to maximize nutrient availability.
3) Bacteria cells reorganize themselves under antibiotic stress.
4) Bacteria cells can swap genes between members of mixed species.
5) Individual cells can coordinate to produce complex structures.
6) Populations of bacteria use quorum sensing to judge their own densities and change their behavior accordingly.
7) For any bacteria to enter a host cell, the cell must have receptors. Some bacteria can enter by virtue of possessing their own receptors.
8) Under rough circumstances, some bacteria cells transform into endospores to resist heat and dehydration.
9) Numerous microorganisms have the ability to overcome being recognized by the immune system as they change their antigens so that any defense mechanisms directed against previous antigens are now useless with newly expressed ones.
10) An intelligence cell contains a component, which is capable of collecting and integrating a variety of difference and unforeseen signals as basis of problem solving decisions basis for human systems.

Symbolic Translation to Human Intelligence

1) Planning and organizing should include entire group, company and population.
2) When business assets and income are suffering, consider all possible resources as relief. – I.e. Assets and Revenue can be leveraged
3) If environment is stressful, reorganize.
4) Cross disciple use of departments, groups, populations – I.e. Ups
5) Individuals within groups, companies, create other interactive structures.
6) A group can make decisions and changes without a centralized system as long as it has a means of assessing the number of other components it interacts with and a standard response once a sufficient number of members join the group. This is vital for futurist planning.
7) To get to another group, that group must be receptive, by some means-i.e. sales. Those other means can be generated by the initiating group-i.e. rewards, and threats.
8) Under bad, poor circumstances, groups should transform themselves so they can resist those circumstances.
9) Game changing policies needed to prevent competition from gaining the upper hand, or taking advantage of a company's model.
10) Intelligent structures have a component capable of collecting and integrating a number of different and subconscious factors, which can be applied to problem solving and decision-making.

These brilliant scientists adapted a Theory of Laws of systems. They labeled this, General Systems Theory (GST). By virtue of GST all theories became accessible. The uniqueness of GST is its adaptability to varying cultures and disciplines. This is made possible by two factors: nature and symbols. By nature we refer to principles of natural sciences and their universal basis and underlying character. The concepts of symbols in GST actually represent a language. It transforms abstraction to concreteness. These two factors enable us to adopt scientific principles, for example, biological principles as a model for understanding. Further, symbols enable us to implement and translate biological principles for human comprehension. Take for example item number two is our SYMBOLIC MODEL OF COMPREHENSION. Here cells under stress reorganize to maximize nutrients. Symbolically, in the translation to human understanding, a business can consider leveraging its static assets, such as financing equity assets.

Cognition, Human Development and Dynamic Systems

Dynamic system application to cognition development is best presented by physical theories (i.e. Natural Science) rather than theories based on syntax and A.I. It is also believed that differentials equations are the most appropriate tool for modeling human behavior. Dynamist's ague that psychology is the description is (by way of differentials equations) of the cognition and behaviors of an agent under certain environmental pressures. Here there occurs and transition phase of cognition development where old patterns have broken down. Self-organization, the spontaneous creation of coherent forms, sets in. An example of this is when an athlete makes an instinctive move, or, a combatant makes a heroic move. These type actions occur by self-organization causing a new state of order in the mind. This process is similar to an action called "Scalloping," which is the repeated building up and collapsing of complex performance – except that this self-organizing modeling does not necessarily manifest through repetition. Rather, it is my qualitative theoretical proposition that the said manifestation is actually an opening of previously untapped "Cognitive Cell's" which allow a new path of cognition and human development.

One of the most dynamic GST models we have researched is a NATURAL SYSTEMS concept developed by Derald G. Langham, PH.D. Dr. Langham was a biologist specializing in plant genetics. Langham was a Cornell University graduate and contemporary of Buckminster Fuller. The Venezuelan government decorated him for his work on crop development during World War II. The model he discovered was based on the creation of a cell, which contained three parts. The concept is modeled on the structure, principles and relationships that he observed as operating in the cells development. Langham along with the author developed the concept to serve as a means to synthesize, synchronize, and organize data. In other words, it can decode and clarify information. He identified the three parts of the model as CREATIVE, ORGANIZATIONAL and FUNCTIONAL. These three break down into segments as follows: Three creative segments, six organizational segments and four functional segments, a total of thirteen segments.

By pursuing the Langham theorem for over thirty five years we at the Gilchrist Institute for the Achievement Sciences have determined that it is feasible that the principles of cell development applies to human understanding.

By their nature, Langham's thirteen principles provides a paradigm that is capable of integrating various disciplines with human understanding by virtue of a common biological meeting ground. Again, the model can decode and clarify information. Additionally, they also have he capabilities of being expressed as polarities. For instance, information can be expressed as yes or no, on or off, up or down--in a yin yang fashion. This is the universality of the Langham model, which is a system of the whole and parts as well as polarity.

Decoding Biological Principles

Langham's biological principles themselves are accessible and readily decoded. Let us decode the first group, the Creative Principles. This biological model stated that the initial, Creative, stage was established by a geometric process, which we recognize as the Pythagorean formula (A squared + B squared = C squared). Further research showed Pythagoras equated a philosophical interpretation to the formula as "focus plus belief equals expression." This was then altered to, awareness plus belief equals character.

This is interpreted as follows:
Awareness is the brain's recognition of its environment.
Belief refers to the way a person interprets reality
Character is the manner in which Awareness + Belief is expressed

Any creative endeavor inherently involves these three factors, which we call the Human Character Formula. This formula is expressed as follows: A+B=C
More formally, the formula is A (ci) = B (ci) = C--where ci equates to Cultural Issues. Accordingly what we focus on plus what we belief about that focus always equates to what we express.

Let us also examine the third group of our model. Langham discovered that the final stage of cellular development was the Functional stage (manifestation), which had four parts. Consider this, there is four and only four ways humans' function. Those are physically, mentally, emotionally or intuitively (spiritually).

The physical segment refers to matter as the visible manifestation of potential energy.

The mental segment is literal knowledge and the ability to reason and use critical thinking.

The emotional segment equates with feelings and desires.

The intuitive segment refers to the ability to access higher forces, energy, which elevates consciousness to a higher level of functioning. It is more sensing than feeling.

The Functional principles are strongly correlated psychologically to a person's personality type. They are powerful indicators of how people express themselves to achieve objectives. Psychologist Carl Jung utilized this group in his work.

Because the thirteen principles are rooted in sound theories and sciences we can now utilize them by virtue of Multidimensional (whole brain) thinking. For instance, when one looks at a behavioral issue, they can approach it from a viewpoint of the thirteen principles. The separate, connected parts can then diagnose the issue. Yet we learn to look at a problem from the perspective of the thirteen principles, as a whole. What are our beliefs about the issue? What are its rules, details, and procedures? How is it expressed and what does it possibly mirror? How does the issue fit into the whole picture? What are its mental, physical, emotional and intuitive factors? Another advantage of multidimensional thinking is that it has the capacity to deal with opposites. The Theory of Complimentarily synthesized disparate viewpoints into a third alternative. We then have a healthier and more productive behavioral model to deal with right and wrong, positive and negative, and personal and impersonal in the way a problem or conflict is approached.

The beauty of the thirteen principles, which we have named "Natural Thinking and Intelligence—NATI, is that one may initiate one or all of them at any point because of the interconnectedness. It's self-organized and yet has the ability to modify itself. Therefore, it is a technology of understanding, which enhances day-to-day living, solve problems, or resolve conflicts. By using NaTI, people and organizations can more clearly and rapidly identify those avenues that lead to desirable objectives. In the process, restrictive patterns can be altered in favor of reaching higher degrees of potential. This includes the attainment of greater efficiency, effectiveness, balance, direction, growth, discipline, and prioritization. Because human intelligence follows these same laws, systems and properties, thought patterns are accessible within this technology of understanding.

Since the NaTI model operates as an open system, factoring in Cultural Characteristics--values, ideals, goals, mannerisms, etc, can expand it even further. As well as factoring in Core Human Dynamics--control, power, acceptance, uniqueness, motivation, judgment, etc. These characteristics and dynamics are what form the mindset of any individual. Because a mindset is who a person is, it determines their potential, what he can achieve. These characteristics are the keys to our life philosophy and our purpose, which can become closed and ordered and/or restricted or open and accepting of new paradigms that exhibit positive values and behaviors. Accordingly, individual models of behavior and understanding can be categorized through the NaTI format.

Using our thirteen principles creates a range of possibilities since they have a holistic relationship with each other. The result is a behavioral model of infinite potential. In NaTI terminology, an individual's inner model of understanding is a closed since their principles and their polarities, are self organized and do not allow outside factors, which at the same time are open and adaptable.

Accordingly, NaTI is a format which is an open system representing how we implement the closed system of the thirteen principles. The open and closed nature of the NaTI format brings organization, synthesis and synchronicity to our understanding. All of the above constitutes a system, which is directional and measureable, objective and subjective, personal and impersonal. In a word, it decodes our potential.

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