RESEARCH ARTICLE

DOI: 10.34256/ajir2046

ASIAN JOURNAL OF INTERDISCIPLINARY RESEARCH

Passion and Love (P/L) with Knowledge and Understanding (K/U): Coherence, Concurrence, Congruence and Coexistence of Passions and Knowledge in Human Mind

Syed V Ahamed [a], *

[a] Department of Computer Science, College of Staten Island, City University of New York, New York 10316 USA

*Corresponding author email: profahamed@gmail.com

DOI: https://doi.org/10.34256/ajir2046

Received: 04-06-2020
Accepted: 09-10-2020

Abstract: This paper deals with the development of personality in two parallel tracks as an infant evolves to be a unique individual in society. The primary track is based on the acquired knowledge that is appended to the genetic code or information that the infant inherits from both parents. This track is essential for survival and is the primary instinct to just live on from one moment to the next. It shapes a baby from an infant in the world, a child in a family, a person in a society. If this progression can be conceived as an evolutionary trail for the progress in an orderly fashion to enhance and grow in a knowledge domain, then a secondary, simultaneous and a parallel track also evolves to shape the emotions of the baby, the feeling of the child and the passion of the person. The feeling, emotions, and passions exist during every stage, however unperceived they might be. The baby smiles and cries, and is happy just as much as a child is joyful or sad, or is excited. As much as this parallelism exists, we extend the parallel evolution of the two tracks deep and prolonged into adulthood, maturity, and old age of the human being in the society. Whereas the knowledge trail enhances the child, adult, and mature human to become educated, knowledgeable, wise, and ethical, the passion trail deeply resident in the mind, makes the person (during all stages of life) realistic, honest, loving, and passionate.

Keywords: Conscious, Subconscious, Mental Functions, Interdependence, Concurrence, Cohesion, Cogency, Human Mind

1. Introduction

Emotions and passions constitute the core of human personality. The development of passions is systemic as the development of knowledge that governs the responses to the gratification of needs to live an organized life. Learning in life is as essential as life in any organized society. Unfortunately, when the psyche is not nurtured, the passion trail can assume a dark-path, turn downward and make the person illogical, dishonest, cruel, dispassionate, and downright unethical. The reflections of both the positive and negative aspects of the knowledge trail that the person an illiterate or a philosopher, also exist in the domain of passions and make the individual a crook or a saint.

In a positive sense, the stages of emotions are sequentially chained, quite logical, and reasonably ordered in the domains of passions as much as the stages of learning are sequential, logical, and ordered. In converse, inappropriately chained stages can be destructive and vindictive in the negative direction, as much as appropriately chained stages can be constructive and contributive in the positive direction. The key difference appears to lie in the love and care the individual receives and reflects at each stage. The sequences are graphically depicted in both tracks and the positive corrections are suggested to make the society more educated in the knowledge domain and definitively, civil in the social domain.

Education that is the key to the development of knowledge reappears as an insidious discipline in organizing the emotions to lay the foundation of the personality itself. The two stages of the two developments become concurrent, intertwined, and interdependent (and should be) during all stages of human life. These developments in the personality follow a chain of well-defined nodes (such as, B, D, I, K, C, W, and E defined in Section 3.1) in the trail of knowledge/understanding defined as K/U trail. Similar developments in the personality follow a less defined sequence of nodes (R_k, D_e, A_t, L_v, R_s, F_a, and L_f defined in Section 4.2) defined as P/L trail. Together these follow ins and outs of a human personality all through the ebb and flow of any life of any human in any culture.

2. The Internet Age and Knowledge Society

In the Internet age, children learn to use digital devices early and continue to use these devices throughout their lives. Computers and the basis for manipulating information are taught during early stages in life. These become a part of the knowledge acquired to gratify their needs to strive for satisfaction and joy to be alive and be happy. These early phases are to live, to learn, and to trust. The living and learning become a process in the acquisition of knowledge, and trust becomes a part of the love for the parent(s) or the caregiver(s). The intertwined processes of learning and loving begins and it continues (in most cases) for life or some traumatic event terminates the bondage.

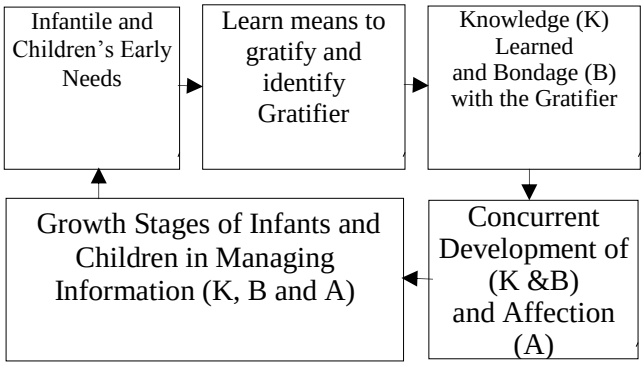


Figure 1. A circular diagram indicating the concurrency in the development of information, knowledge, bondage, and affection. Information is the forerunner of knowledge leading to Intelligence (Inf→K→Int) and bondage is the forerunner of affection leading to Love (B→A→L).

In Figure 1, the continual looping around the five nodes enclosed in the boxes make the infant a child, an adolescent, and then an intelligent adult in stages. This continuity around these nodes is not generally smooth and can be broken or stepped by the other emotional, psychological, and/or environmental conditions. Sudden changes in the transitions are always preceded by cause(s) in this simple diagram but as it can be seen in the following sections the causes effect relationship grow complex and the time delays in learning and realignment of emotions and psyche can have serious ramification in the evolution of individuals, countries, cultures, and nations. The diagram, though simplistic applies to all living species from infancy to adulthood. Broken or ruptured connectivity between the five nodes of Figure 1 are

precursors to eminent changes in healthy development, especially for culture and nations.

Human beings are not always cognizant of the precursor eminent signs. However, embedding intelligent agents (IAs, (Mohammadian, Masoud, 2004)) in knowledge (Ahamed, Syed ., 1995) and wisdom machines (Ahamed, Syed., 2008) atop of Intelligent Internets (An enhanced need pyramid of the information age human being, 2005) can detect and warn the human administrators of the causes and remedies for undesirable changes in societies, nations, and cultures. Such KMs (Ahamed, Syed., 1995) and WMs (Ahamed, Syed., 2008) embedded in operating systems would have warned public-sector officials of the fact the "black lives matter" even during the days of slavery long before the riots (ABC News, 2020) in the major cities in the US. Another case for KMs (Ahamed, Syed V., 1995) and WMs (Ahamed, Syed., 2008) that Iraq did not have weapons of mass destruction (WMD, (McClellan, Scott, 2008)) would have spared thousands of innocent lives before George Bush ("Iraq's Weapons of Mass Destruction Programs — Central Intelligence Agency.",) started bombing (Young, Angelo, 2013) that country and indicated that Britain's Tony Blair was an only a puppet (Usa Today, 2015) played out in hands of Bush!

3. A Simplified six Node Knowledge Trail

During adolescent years, most species tend to follow the ethics to live in the society by leaning to organize knowledge and extract concept and wisdom being more universal than time and situation-dependent knowledge.

3.1 Repeated and Advanced Steps in Human Processing at the B, D, I, K, C, W, and E Nodes in the Knowledge or (K/U) Trail

By nature, most humans (and other species) repeat successful steps in the solution and their strategies in resolving problems. Routine problems are solved effortlessly and a force of habit sets in. When complex or new problems arise, the steps are intelligently recombined to make the solution and solved step by step. These approaches are practices in almost every stage of learning and living.

In the more advanced stages of problem-solving dynamic and time-varying strategy may become necessary in learning, knowing, and stepwise solutions. Every step is thus analyzed in its right and when the problem is more encompassing (such as global warming, a decline in public morality or honesty, wars, abuse of power, etc.), then an adaptation of numerous different steps may become essential.

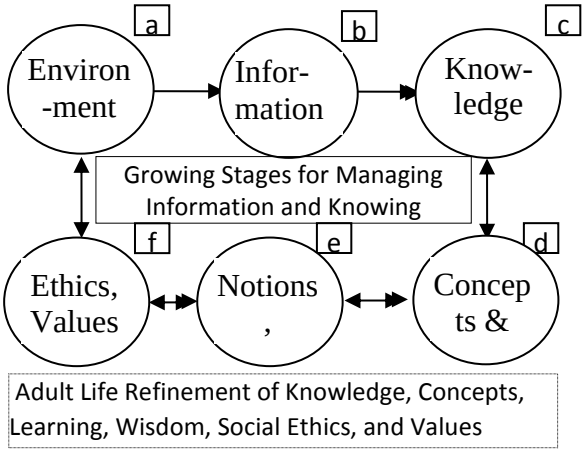
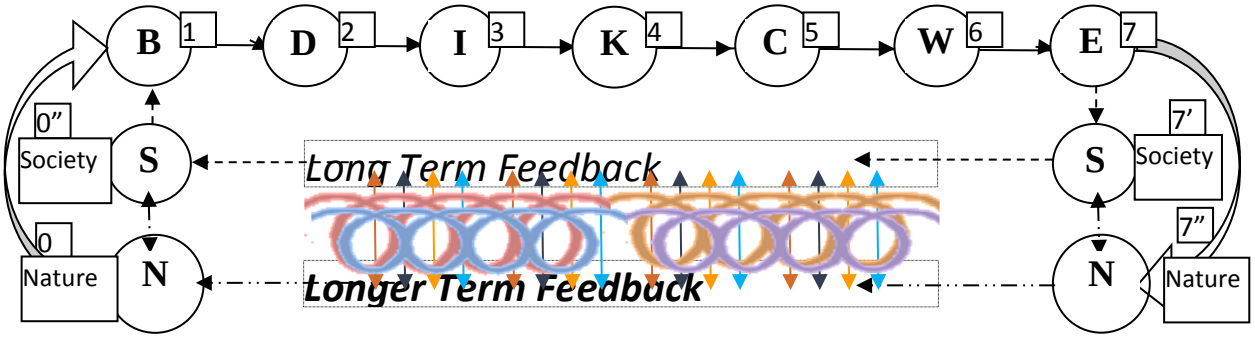


Figure 2. When the forward paths in Figure 1 are analyzed and reanalyzed, the process of refinement starts and the refinement can become time and situation-dependent.



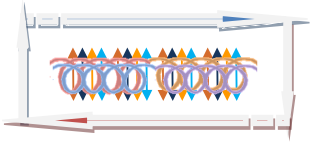
Notation: Nodes N, S, B, D, I, K, C, W, E, and then back to S and N at 0', 0", 1, 2, 3, 4, 5, 6, 7, 7' 7" are indicative of the sequence of events that occur in the Internet Society in the current Knowledge age. The notation continues as N= Nature & Environment S = Society in most Cultures, B= Binary Data through the High-Speed Networks, D= Data Structures from Binary Data, K= Knowledge Derived from the Internet, C= Concepts behind Knowledge, W= Wisdom for oneself and Society, E= Ethics in Society, after B, D, I, K, C, W and N, = Nature as it is affected by events in the Loop 0 to 7".  Feedback and Feed forward effects from prior feedbacks and feed forwards. These effects can be tracked effectively by knowledge processing machines embedded on the Operating Systems. The sequence represented by the following shape indicates very long term feed backs and their lasting effects on Society and Nature. Such changes are evident as the  aftereffects of Industrial Revolution, abolition of slavery on the positive side, and coal-fired electric power stations and air pollution on the negative side.

Figure 3. The Representation of the Knowledge or Understanding Trail (K/UT) from a slightly more advanced perspective that is tailored to the current Internet Age and knowledge society. The collection of data and information is in the binary or digital format. (see node B) and is resolved into the various data structures (see node D) to extract and compile the Information (see node I).

The engineering solutions have been published as the Program Evaluation and Review Technique (PERT, (Grinnell, Richard M., et al., 2012)), and determining the critical paths (as in the CPM (East, William, 2015) approach) in the overall solution. In these cases, the knowledge gained is classified and stored in the knowledge banks of corporations. A systemic approach based on the circular path of Figure 2 is shown in Figure 3.

The feedback times from society and Nature change long to longer. These effects are ignored by most casual on-looks but they can have dramatic effects. Typical examples of such negative feedbacks from society have occurred where the political agenda has ignored the conditions of the homeless in western societies, and when the public official have willfully rejected the inappropriate behavior of police brutality and killings (Usa Today, 2020). Similar feedback is also evident when the Oil Spills (The Washington Post, 2018) in the pristine wilderness areas throughout the world remain spoiled.

Human organizations are generally unable to accurately track the contents of the boxes 0 through 7'' shown in Figure 3. The analysis and cause-effect relations are even harder to track. The solution perhaps lies in the accurate measurement of the precursor signs and the impending effects in the solution steps and strategies. Most human beings and organizations collapse at this critical step and the continuity of the learning process is broken. When funding and political changes are present or perceived to be present, the solution becomes unstable and loses its effectiveness.

4. A Concurrent Six Node Passion or Love (P/L) Trail

During adolescence, most species tend to follow the social norms and rules of conduct to live in harmony and peace with members of the society by leaning to organize knowledge and extract concepts and wisdom; wisdom being universal, then time and situation-dependent knowledge as depicted in Figure 3.

The simultaneous evolution of the passion trail is shown in Figure 4. The hidden processes a' to f' are more involved and delicate than those shown in boxes a through f in Figure 3. This figure relies heavily on the Need Pyramids of individuals, corporations, societies, and cultures. The type of care-givers are different but provide the gratification of the needs at all seven layers of needs (Ahamed, Syed., 2005). The stages d', e', and f' are particularly important because the human bondage and relationships start here, generally lasting more than one lifetime. The family ethics and values of Figure 3 are established firmly by linage as much as corporate traditions and goals are affirmed by the bondage of the corporate members. Such effects can be counter-productive in cases of Mafia or Crime families.

4.1. Repeated and Advanced Steps in the Evolutionary Nodes a', b', c' d' e', and f'

The Ethics and Value from the Knowledge and Understanding Trail (K/UT) thus play a decisive role in the origin, formation, evolution, and incubation of the Passion Trail or Love Trail (P/LT) shown in Figure 5. The effects of time and personality variations influence the carryover effects inherent in humans and all species. In the pattern of Darwinian evolution (Darwin., 2005) these effects have altered both the K/UT and P/LT in all species and stages of evolution.

During the Internet evolution of human personality, these effects of rapid variations in human personality and character have altered the perceptions of knowledge, society, and time. Knowledge is ever so readily accessible by the high-speed networks, society is reached by social and news networks, and time can be scanned by the Network knowledge bases. The dynamics are deep and rapid, affecting the stability of values and ethics in society endangering the stability of cultures and nations.

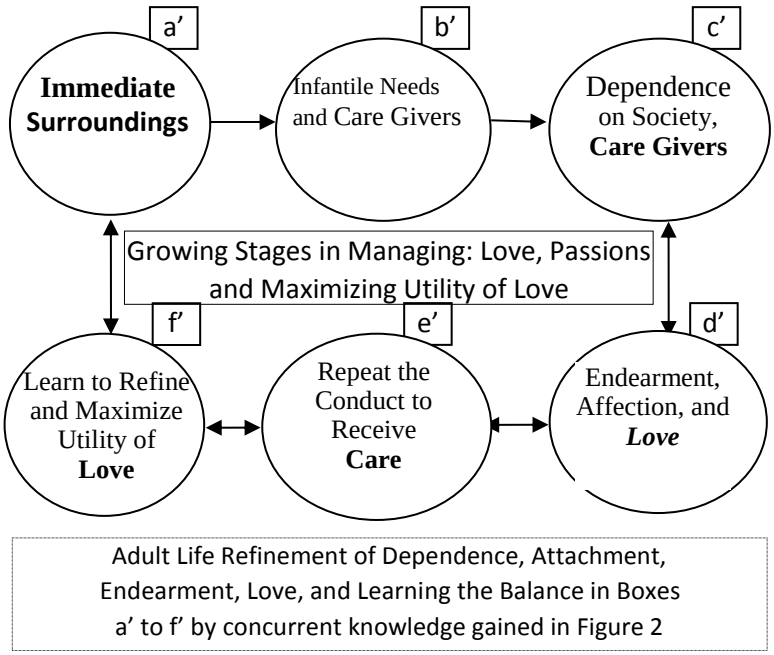


Figure 4. The loop a' through f' is iterated many times through the boxes, and the processes become habits. Continuity of the major and minor habits develop. A blueprint of the

personality emerges which is itself iterated and reiterated many times throughout lives of an individual, societies, cultures, or even nations.

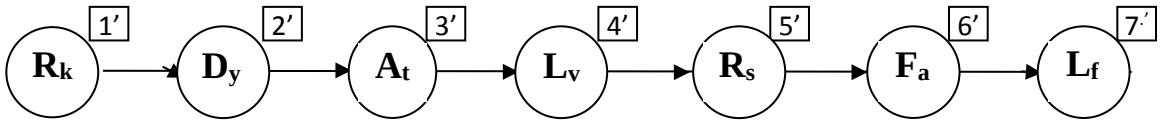


Figure 5. The Nodes along the Love or the Passion Trail (P/LT) tend to more absract, complex and less deterministic than those along the knowledge Trail (K/UT) in figure 3.

The feedback and feed-forward effects (via the social path) in the complete cycles via the S_s node (see Figure 6) can become fierce and deadly. The liberated Internet-agers challenge the more stable values and traditions in a combative mode (especially in the western countries). The net effect is the neglect of the older generation who still value a few of the traditions. Consequences abound; homelessness, drug addiction, mental illnesses, etc., have surfaced to disrupt the status of nations and countries. The feedback and feed-forward effects via the Nature node (see Figure 6) can also be equally devastating, Ozone depletion, plastic pollution, and lack of International relations weakening of UN (United Nations, 2020) and WHO (WHO, 2002) organization is evident during the last few decades.

4.2 Explanation of the Seven Nodes Rk, De, At, Lv, Rs, Fa, Lf, at 1', 2', 3', 4', 5', 6' and 7.' (Figures 5 and 6), in Passion or Love (P/L) Trail

These seven Nodes along the Passion Trail (P/LT) are ill-defined and more complex. Being dependent on biological and neural processes, the exact nature and their locations should be considered as feelings and indicative of mind-sets located in the mind and psyche of humans and species. These processes are driven by mental energies and neural conduction of sodium and potassium ions through the nervous system. In the K/U trail, these nodes exist as concepts and in P/LT trail, these nodes act as placeholders in the neural nets and within the brain. The Passion Domain (PD) thus becomes less deterministic than the knowledge Domain (KD).

4.2.1 The Role of Instinct at H_i

Instinct becomes is as valuable to live as life is to continue to live from one moment to the next. A sense of biological time becomes vital to the synergy of the functions of the instinct. Instinct drives the body functions as the mind drives the instinctual functions. The triad of instinct, body, and mind are as integrated as the functions within the triad. At this stage of embryonic life, the segmentation of instinctual functions is an invalid scientific function. Hence, we can proceed to the states of mind shown as the seven nodes 1', 2', 3', 4', 5', 6', and 7.' in the Passion Trail.

4.2.2 Rudimentary or Infantile Knowledge, Rk at 1'

Genetic information encoded in the chromosomes reappears as infantile knowledge in the behavior of the baby; the sucking, the search for nourishment, and smiling in being joyful are a few of the knowledge-based functions very early in life. This wealth of this inherited knowledge also becomes a part of the parent-child relationship in most of the species.

4.2.3 A Sense of Dependency, D_y at 2'

The recognition of the caregiver that facilitates the baby with the gratification of its need is indeed a biological pattern-recognition process. Natural as it may seem facial,

behavioral pattern recognition is an AI function and becomes a necessary repertoire in adulthood to live a normal life. Such dependencies may be short-lived or last lifelong. The caregivers can change with time or through the many passages of life; being need-dependent other nonlife objects (such as money, fame, power, drugs, alcohol, etc.) may gratify the needs of species. In many cases, love (L_v at Node 4') can become personified in a human being! Many sickly dependencies also prevail through societies and cultures.

4.2.4 A Feeling of Attachment and Love L_v at 4'

Attachment is a precursor of love in most human beings. when based on dependency (s), the perception of love can be nascent and short-lived. The role of memory and repeated desires are generally resolved by longtime relations and anxiety of time and physical, psychological, and emotional distance. In this rather complex relationship, the contributions of E. Fromm (Fromm, Erich., 1956) are well acknowledged.

The posture of selfish love taints the bilateral nature of love preached by Fromm. Love tends to be exploitive in this deformed practice of love. A typical example of the format is the inhuman Bush-Blair political drama (Factbox, 2007) played out during the Bush deception of Iraq War years that lasted from 2003 to 2011.

4.2.5 The Response and Reinforcement, R_s at 5'

The response to attachment and love is essential to reinforce them. This response generally adheres to the social norms in the society. These actions are feelings and evaluations rather than measurable numbers and fractions and become personality dependent. The perceptions can vary dramatically and become dynamic with age and time. However vague these nodes maybe along with the P/LT, they are cornerstones in human relations.

4.2.6 A Balance and Readjustment, B_e at 6'

Shortcomings and limitations are realities of all lives, dynamic as they are, rebalancing and tolerance tend to contain these nodes in a reasonably stable and the entire reentrant loop. The cycle is thus complete in the Passion domain and society becomes stable, coherent, and less volatile. As much as K/UT has been stable through many past centuries in educated populations, the PL/T is more stable in for long durations in the forbearing species and societies.

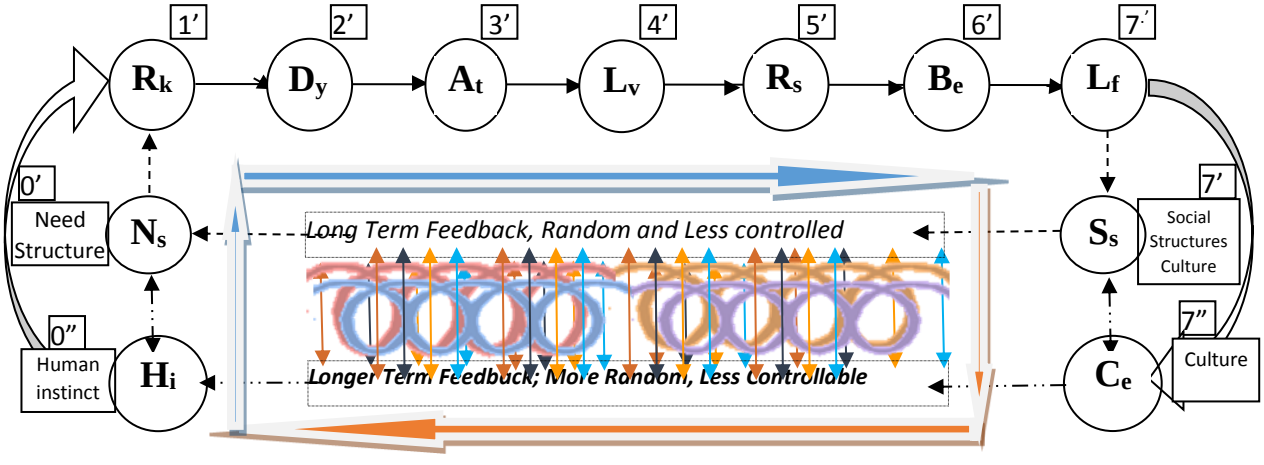
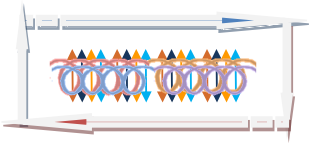


Figure 6. Partitioning of the Passion Trail into seven zones. This trail in its generic form applies to societies, cultures, and even nations. Modern information and knowledge pressing

systems can effectively monitor, maintain, and even rectify undesirable changes in the social environment much as the Intelligent Agents (IAs) can function in semi-automated systems such as the Tsunami and Weather monitoring systems.

Notation: Nodes N, S, B, D, I, K, C, W, E, and then back to S and N at 0', 0", 1, 2, 3, 4, 5, 6, 7, 7' 7" are indicative of the sequence of events that occur in the Internet Society in the current Knowledge age. The notation continues as N= Nature & Environment S = Society in most Cultures, B= Binary Data through the High-Speed Networks, D= Data Structures from Binary Data, K= Knowledge Derived from the Internet, C= Concepts behind Knowledge, W= Wisdom for oneself and Society, E= Ethics in Society, after B, D, I, K, C, W and N, = Nature as it is affected by events in the Loop 0 to 7".  Feedback and Feed forward effects from prior feedbacks and feed forwards. These effects can be tracked effectively by knowledge processing machines embedded on the Operating Systems.
The sequence represented by the following shape indicates very long term feed backs and their lasting effects on Society and Nature. Such changes are evident as the  aftereffects of Industrial Revolution, abolition of slavery on the positive side, and coal-fired electric power stations and air pollution on the negative side.

4.2.7 A Feeling for Life and Peaceful Living, L_f at 7'

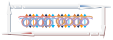
This joy-filled feeling is perhaps a subconscious goal for all species. It is the trail end for P/LT and is partially fulfilled from the stability of adjoining nodes at B_e and S_s. A sense of timelessness and truth is established here and the entire loop 1' to 7'' can repeat ad-infinitum provided all the nodes from 1' to 7'' remain stable. However, the reality of real-time in the real world being continuous will cause realignments, readjustments, and revolutions within and without these nodes. In a philosophic sense, we allude to the inevitable events (birth and death) of all species, stars, and galaxies. These events are hinted in Figure 6.

4.2.8 Feedback Paths through Society and culture, S_s and C_e at Nodes 7' and 7''.

Feedback and Feed-forward are tools, in engineering systems that are used to maintain the short-term stability of systems and their continuity of appropriate functions. These two techniques are also applicable in the managerial functions where control, coordination, and communication (the C^3 managerial tasks) between human elements or units should to readjusted due to changes in external or corporate conditions. In such environments, the three C^3 tasks are essential to maintain dynamic stability.

However, in the loops presented in Figures 5 and 6, the three C^3 tasks are unattended. Society and Nature by their customs restore long-range stability. However, such restorations can also bring drastic results. For example, in social settings, the hippie populations peaked and declined during the 1980s (Melissa Petruzzello, 2020). In the Northern Tundra, the balance between the lemming and owls populations provides an example. A whole generation of owl chicks suffers massive starvation from time to time in the natural cycle that readjusts their populations.

These forces of excesses and their reversal in living species are a phenomenon in Nature. The restoration is represented by the box  enclosed in Figure 5 where the ethics and values in society undergo painful cycles brought about by the excessive deployment of technology.

A similar restoration is also presented by the box  in Figure 6 when the human instinct (Box 0'' in Figure 6) changes

the very structure of the Need Pyramid swaying it from tolerance in Wisdom (Box 6 in Figure 5) to an inhuman desire for cruelty and bombs. This is a painful precursor for imminent changes in civilizations. It had occurred when human beings were sold as slaves and slavery prevailed for many decades in the western civilizations.

4.3 The Continuous Activity of the Mind

The mind of most humans is a biological system that attends to any deficient need, however small or large it may be. It is continuous, sustained, and alert. Well-balanced mental functions lead to healthy and happy organisms. To become devoid of all of these many functions is synonymous with being mentally dead or being paralyzed.

The state of mind is shown in Figure 7(a), by enclosing the two trails (P/LT and K/UT) in two lobes in a Leminscate diagram. The effect of time is thus eliminated since the Lemniscate is a continuous loop and can represent some processes or the other simultaneously or sequentially. As much large computer functions can be organized in smaller, modular functions, the functions at each of the seven nodes in either of the two trails into sub-nodal functions that can be organized at a conscious level of these are already organized as the inherited genetic code of the individual. Failing the stacking and organized the learned sub-nodal functions can eventually lead to a broken frame of mind. Unhealthy habits and lifestyles result. The organization of these two trails and the functions start to offer clues into the framework of the mind of any individual.

In essence, the conscious organization of the nodal and sub-nodal function builds a foundation for the subconscious mind of its own biological and emotional activities. Young and adolescents generally lack to grow into thoughtful adults except by schooling or learned discipline in well-controlled and ethical environments ranging from the arms of the caregivers (Figure 4) to the shrines of peace. Conversely, they can range between neglected households to schools for thieves, thugs, and mafia.

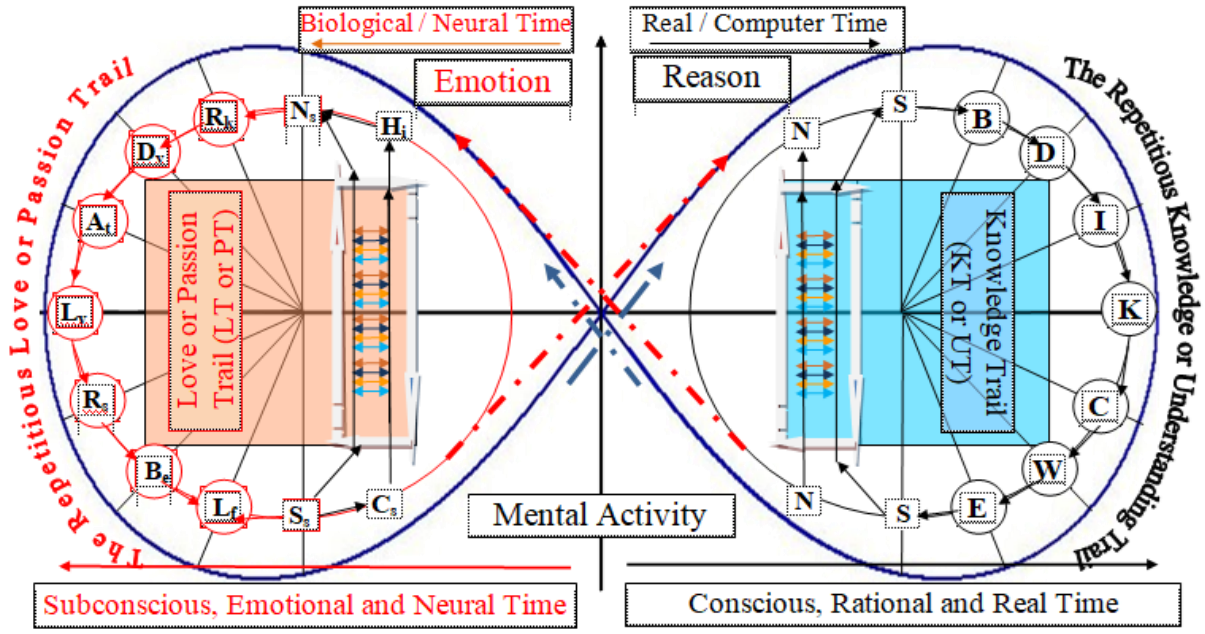


Figure 7 (a). The continued action and reaction effects between the intellectual (Right lobe of the Lemniscate) and instinctual (Left lobe of the Lemniscate) activities of human beings

that form the core of the innermost personalities and their differences. These trails (K/UT and P/LT) last for a lifetime, and are individualized, alive, and dynamic, growing, evolving, and aging.

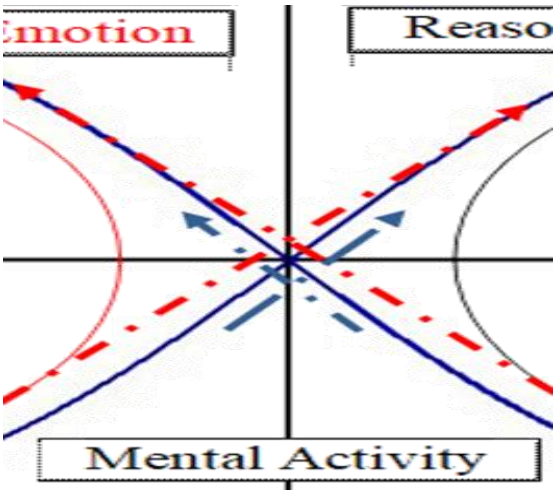


Fig 7 (b) Crossover during mental activities of human being from emotions to reason or vice versa, e.g., changes in relationships, jobs, houses, or from love to marriage or marriage to divorce, etc.

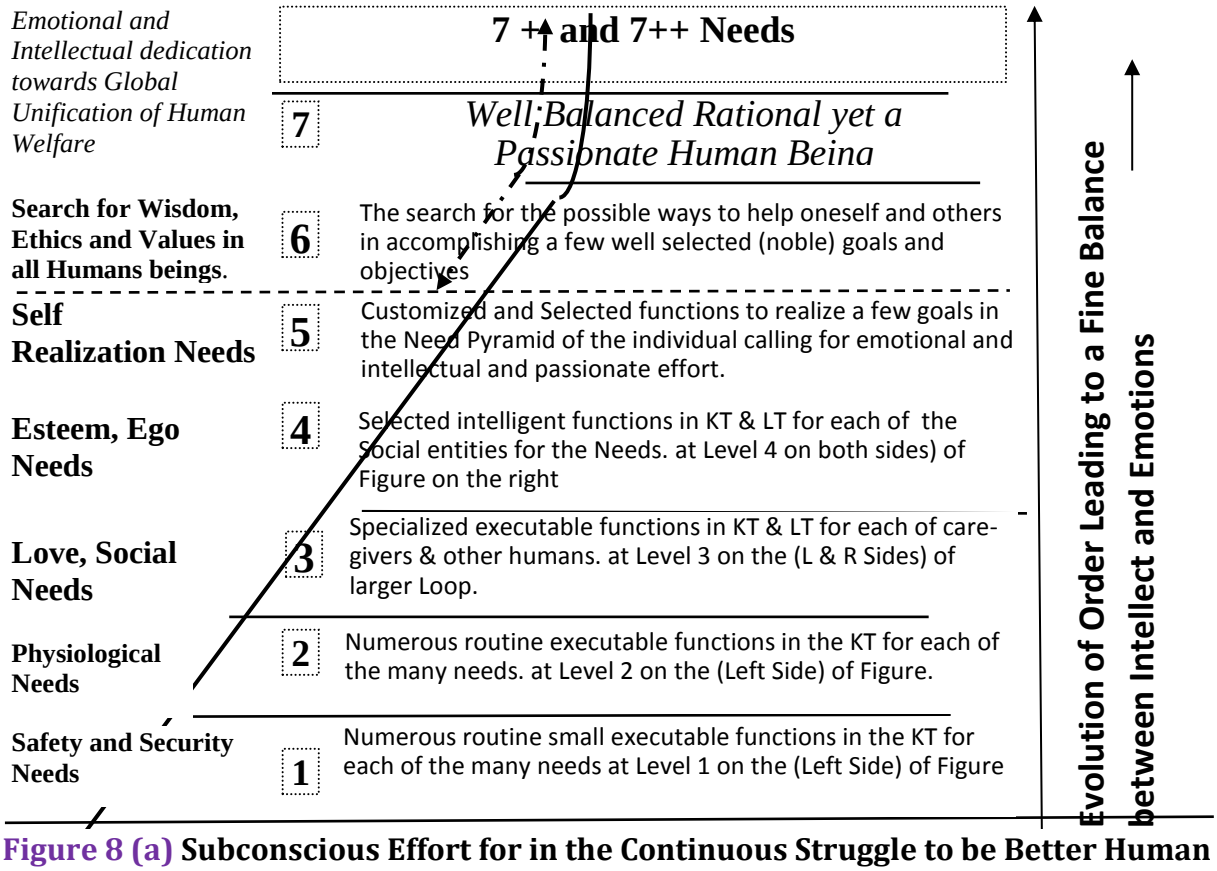


Figure 8 (a) Subconscious Effort for in the Continuous Struggle to be Better Human

4.4 Movements in Passion or LoveTrail (P/LT) in Conjunction with Movements in the Knowledge or Understanding (K/UT) Trail

These two movements are generally concurrent. Simply stated when the emotion becomes too much, the intellect takes over; conversely when knowledge (processing) becomes too overwhelming, then some indulgent emotional activity takes over to maintain a balance. Crossovers become

necessary. In the human domain, these crossovers are natural and (almost) automatic. In the machine domain, when the various processors CPU, KPU, CoPU, WPU, and MPU (Central, Knowledge, Concept, Wisdom, and Medical, respectively) get trapped in a recursive loop, some human or operating system function is necessary to abandon the culprit process and intervene to restart the process(es) with modified inputs.

These crossovers are shown as four arrows in Figure 7(b). The two blue arrows show long term crossovers from longterm P/LT processes to longterm K/UT processes. The two red arrows show the crossover from short term Passion Trail (P/LT) or (K/UT) to a longer-term Knowledge Trail (K/UT) and vice, versa. Such crossovers occur when people make or break relationships, such as love to marriage relationships, or from marriage to divorce, etc.

When such crossovers are contemplated and rationalized activities, the changes in life have less turbulence and emotional dislocations. In the organized cultures, societies become better organized, tolerant, and civil.

5. Concurrence, Coherence, and Coexxtance of the K/U and P/L Trails

The processes embedded in this section are presented in three parts as Figures 8a, 8b, and 8. Figures 8a and 8b depict the subconscious and conscious activities of any human mind respectively and Figure 8 integrates these two functions. The top of Figure 8a indicates the mental stance of the socially agile and benevolent human personality. The converse is equally true for an individual with a limited facility to organize the (verb) functions, streamline the activities, and thus be able to divert time and energy to more fruitful activities. In the lower part of Figure 8(b}, life gets trapped in cluttered functions attending to mostly routine and instinctual activities also shown in Figure 8(a).

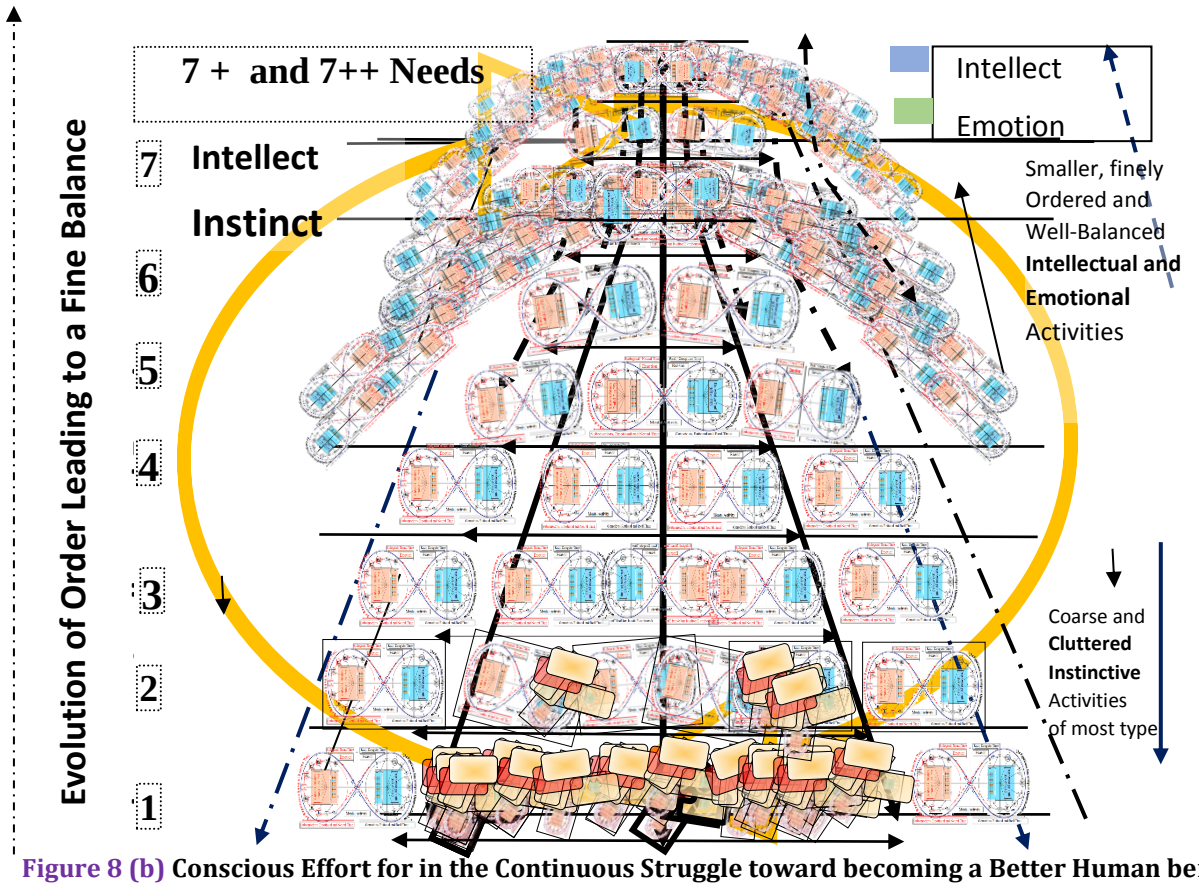
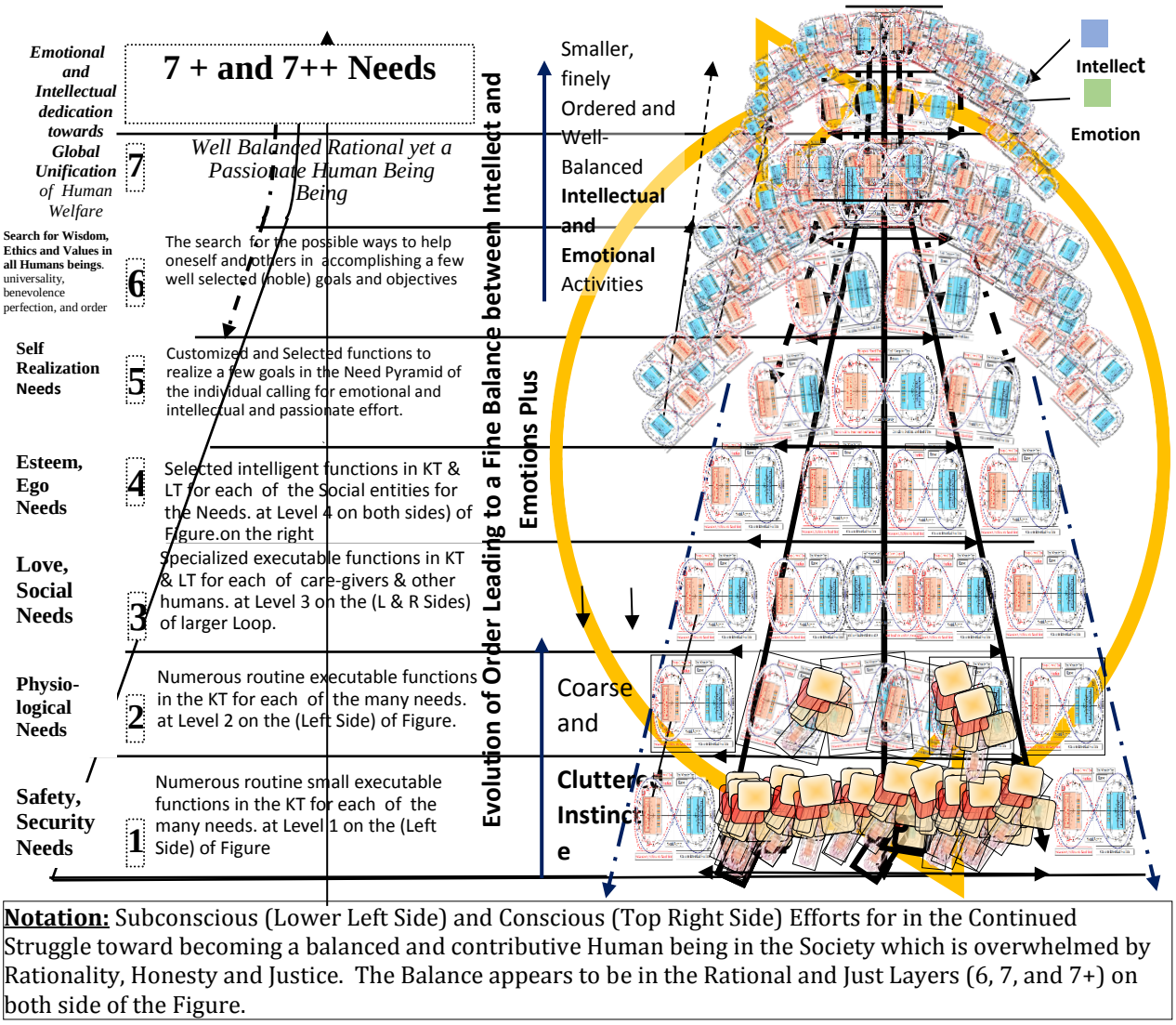


Figure 8 (b) Conscious Effort for in the Continuous Struggle toward becoming a Better Human being.



Notation: Subconscious (Lower Left Side) and Conscious (Top Right Side) Efforts for in the Continued Struggle toward becoming a balanced and contributive Human being in the Society which is overwhelmed by Rationality, Honesty and Justice. The Balance appears to be in the Rational and Just Layers (6, 7, and 7+) on both side of the Figure.

Figure 8. Two Aspects of the Mind which can swing in either direction (subconscious, instinctive and selfish attitude resident in the lower half of the Figure) to the opposite side resident at the top of the figure. The variations of personality are evident in where any individual. Find a region of comfort. The lower left side tends to give rise to a selfish and self-centered human with a Mafia-style of min side in managing the routine efforts. At the other extreme the attitude of truly philosophic, saintly, and benevolent human beings seem to reside at the top of the diagram favoring the right side of the Figure

As indicated in the node L_f of Figure 5, this node constitutes a realizable goal of most species to live a peaceful life and expend an optimal amount of energy for such a lifestyle. The law of microeconomics assures the maximization of a long healthy life with a minimized expenditure of energy to achieve it. This node in the P/L trail generally occurs as human intellect reaches the nodes 6, 7, and 7+ nodes along the K/U trail. The trails follow a cogent and coherent path through their adjoining nodes thus maintaining synchronicity between the two trails. The fact is supported by the observation that the mental attitude of an immature adolescent can not jump into the spiritual attire of a saint.

When supernatural events do not hold a scientific explanation, the continuity of the sequential nature of nodes in the two trails offer validity to the concepts, constructs, and

conformity to the two-trail theory of the behavior and conduct of any human being at any stage of life in any society or culture on a rational and scientific basis.

5.1 The Nature and Continuity of Time in Lives of All Species

Life and time are synonymous. Interdependent and intertwined they fulfill the Laws of Nature; of instinct and intellect, of the subconscious and conscious, and of art and science, repeatedly, a large but finite number of times as the heart beats and the brain functions. A certain extent of demarcation is feasible. In this context, Figure 9 indicates the continual nature of time, and the nodes indicate the conscious and subconscious functions. The human needs and their derived instincts are depicted on the left and the scientific disciplines and their rationalities are depicted on the right.

The continuity of time is indicated by the unending character of the indefinitely large number of Lemniscates. The broken lines indicate the limited flexibility of the intellectual functions in time. The vacillating centerline through the Y-axis is the unsteady flow of events that shifts the balance between the two functions of the mind.

6. Conclusions

We present an observation-based but scientific framework for the evolution of the two (subconscious and conscious) states of the human mind. Two congruent, cogent, coordinated, and coherent paths of evolution of the mind are depicted throughout the illustrations in this paper. The first path introduced as the Knowledge/Understanding (K/U) trail is documented in Figure 3. The second path introduced as P/L (Passion /Love) trail is shown in Figure 6). There are seven nodes and two feedback and feed-forward corrections in each of the two trails. The evolution, refinement, enhancements, and iterative corrections along the K/U trail is reflected by similar processes in the P/L trail. Well-established and well-coordinated processes constitute the seven nodes in each of the two trails. These nodes are logical and sequential much like the nodes in a large-scale humanistic, medical, or engineering project.

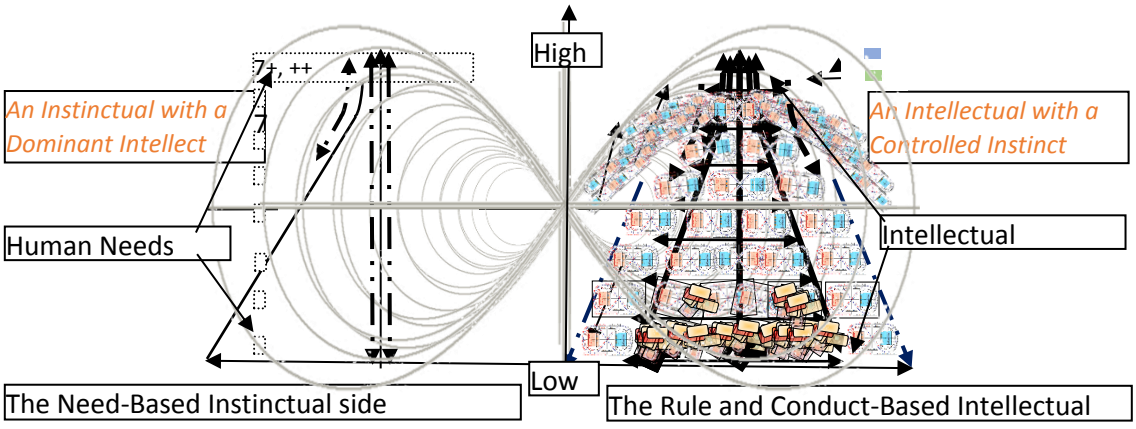


Figure 9. A fuzzy and vacillating state of mind between Subconscious (left) and the Conscious (right), the Instinctual and the Rational, the Imaginative and Practical, etc., the states of mind is shown. The dominant or the submissive frames of mind governs the attitude at any instant for any duration.

These nodes are mental cornerstones that help an individual become a productive individual in any society or culture. Some of these nodes in the K/U trail are taken from prior and stable cultures but preceded by proven nodes from the computer and Internet age. Some of the nodes in the P/L trail are based on the recent theories in psychology, economics, communication, and managerial sciences but preceded by the proven motivational theories that govern human behavior. Together, they streamline the flow of information and knowledge in the integrated society of the 21st century as much as they influence the conduct and rules of any advanced society.

The influence of time and its dynamic nature are included in Figures 3 and 6 by extracting concepts from current knowledge that is itself extracted from the Internet communication networks. The role of correction by feedback loops in both trails is imposed by the Intelligent Operating Systems that govern the stability of the cyclic nature of trails. The role of protecting by feed-forward corrections is imposed by intelligent agents that continuously monitor the leading indicators of imminent dangers to the stability of the trails. These concepts apply to the betterment of cultures, nations, societies, and even to the enhancement of one's own personality.

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Funding: No funding was received for conducting this study.

Conflict of Interest: The Author has no conflicts of interest to declare that they are relevant to the content of this article.