

# Review Of Unimedicine as A Complete System of Alternative Medicine for Physical and Mental Health

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## **Abstract**

This research paper is a compilation of eight different double-blind peer-reviewed original research papers by the author which were published in a reputed journal in past, and this paper integrates all of them into the single unified framework of “Unimedicine”, forming a complete system of alternative medicine for physical and mental health. This paper contains the original text corpus of all those published research papers in a synergistic form without changing the content or meaning, forming the integrated corpus of Unimedicine. This paper is categorized into 4 sections, each section containing two of those eight papers, with duly mentioned reference to each paper. All of those eight research papers which constitute this paper are original intellectual creations of the Author.

## **Section 1 :**

Core framework of Unimedicine, combination of Reference No. 1 and 2 (mentioned at the end of this paper)

## **I. HUMAN BODY AND 5 ELEMENTS**

All major ancient civilizations which were present on Earth, including of Vedic age Ayurveda, have stated that everything in the universe is made up of the 5 elements, namely Ether, Air, Fire, Water and Earth. The concept of these 5 elements has been highly misunderstood and misinterpreted due to wrong translations of ancient lexicon.

The original meaning of ‘elements’ as referred to by the ancient civilizations are the “states of matter”. The 5 elements which they referred to are the 5 states of matter : Air referring to the gaseous state of matter, Water referring to the liquid state of matter, Earth referring to the solid state of matter, Ether referring to the subtle states of matter such as light, electricity, magnetism, plasma, etc. and Fire referring to the state of chemical reactions such as the literal fire.

The human body is too made up of these very 5 elements, and for the purpose of developing a new system of medical science - in Unimedicine, we re-defined these 5 basic elements with regards to the human body to be as follows -

1. Earth Element: Refers to everything occurring in solid state – such as bones, muscles, tissues, ligaments, etc.

2. Water Element: Refers to everything occurring in liquid state – such as blood, urine, cerebrospinal fluid, saliva, etc.
3. Air Element: Refers to all the (process of) flows or movements in within the body – such as literal air moving within lungs to oxygen moving into the bloodstream, food moving through mouth to digestive tract to excretion, blood flowing through the veins/arteries/capillaries, urine flowing through kidney to bladder to excretion, etc.
4. Fire Element: Refers to all the (process of) chemical (or bio-chemical) reactions within the body – such as digestion of food, release of hormones and neurotransmitters, production of sperm, conversion of sensory inputs into nerve signals within sensory organs, the lymphatic system, etc.
5. Ether Element: Refers to the complete nervous system in the body – all nerves and nerve tissues present all across the body, the bio-chemical electricity in the nerves, including the central nervous system and the enteric nervous system.

There are many occurrences within the human body which cannot be purely categorized within the category of a single element – as they possess characteristics of multiples elements combined – therefore the concept of “elemental complexes” are introduced.

An “elemental complex” is a combination of two basic elements. Using only three elemental complexes in addition to the five aforementioned basic elements, all the functions and constituents of the human body can be completely classified.

The three elemental complexes are as follows :

- a. Earth-water Complex: Refers to everything in viscous state – like phlegm, seminal fluid, stool, fat, etc.
- b. Fire-water Complex: Refers to all the reactive chemicals and hormones/neurotransmitters in body – gastric juice, blood plasma, all hormones, neurotransmitters, etc.
- c. Air-Ether Complex: Refers to all the movements within the body, including movement of bioelectricity within nerves. Also refers to the complete nervous system spread all across the body Literally the combination of Air element and Ether element as defined earlier. Reference to neuro-muscular system.

## II. CAUSE OF ALL MEDICAL/HEALTH DISORDERS

All types of medical/health problems (disorders/diseases) are categorized into two categories – Acute (short-term) and Chronic (long-term) – and both of them are manifested through one singular biological mechanism, namely of ‘inflammation’. A correct understanding of ‘inflammation’ is needed to proceed – that inflammation is the natural reaction of body towards any situation which is harmful for its survival. In all cases of medical/health problems, if inflammation were absent, the body would continue normally as before, without any inherent dis-order being caused, except by pathogens or trauma – for which the body is natural programmed to heal itself. In short, the disorder/disease refers to the process of inflammation, and rest of the body is healing itself automatically. Inflammation can also be defined as the body’s natural reaction/response against injury(damage) or infection(virus, bacteria, parasites, etc. microorganisms), which can be either internal or external or both. Inflammation can be localized to a tiny specific area within the body, or it can affect complete and multiple organs/areas of the body. Inflammation can happen anywhere in body - in muscles, nerves, tissues, bones, etc. This “natural response” termed as

inflammation is different for different elements, and also different in different cases, depending on multiple factors such as cause, environment and situation.

Unimedicine, like all other systems of medicine, aims to achieve Homeostasis. Homeostasis can be considered synonymous with ‘health’ or the normal state of biological functioning of body – and therefore “disease” or “disorder” can be explained as any deviation from Homeostasis – and the natural indicator of such deviation is what we know as inflammation – inflammation is the body’s natural healing mechanism. I want to explain further that this inflammation which we are referring to can also be interpreted/considered as a signaling system or a biomarker that body uses to highlight the deviations from homeostasis, for the purpose of automatically restoring homeostasis (self-healing), for which the body is programmed/evolved.

Having clarified this, I hereby explain how the different elements as defined earlier can deviate from homeostasis, or how the deviation from homeostasis manifests as inflammation :

1. All the constituents of/within the body (human body as well the bodies of all life forms on earth) can be categorized into the various elements as explained earlier.
2. All these constituents have a “normal function” – referring to their optimal & expected state of functioning within any particular set of environmental condition.
3. When all constituents of/within the body are functioning normally/optimally according to the body’s environment, it is the state of Homeostasis/health for that body.
4. Any deviation from Homeostasis occurs only when one or more of the constituents of the body is either Hyper-functional (functioning excessively than required) or Hypo-functional (functioning lesser than required)
5. Inflammation is therefore either one of these states - either of Hyper-functionality or Hypo-Functionality, of one or more constituent(s) of body

### III. DIAGNOSIS USING UNIMEDICINE

Accurate diagnosis using Unimedicine requires :

1. Locating the area of the body which is affected by inflammation or the location of origin of inflammation within the body. (in some cases, whole body or a major part of body is affected, but the originating point is albeit locatable.)
2. Determining the element(s) or elemental complex(es) of body which are affected by inflammation.

Once these two things are ascertained, the treatment of disorder can be started using the relevant methodologies given further below.

#### A. Neurological Disorders – caused by Air-Ether Complex

Neurological disorders refer to any inflammation in the neurons / nervous system / neural tissues, within the body – i.e. the Ether element. Owing to the nature of nervous system (ether element) – the effects of such inflammation manifests not only at the source point of inflammation but also in other areas of body to where the affected nerve travels. This movement of symptoms/effects from the source point of inflammation to the other areas of body connected with that inflamed nerve represents the Air element. Thus, all neurological disorders are disorders of Air-Ether complex.

Neurological disorders are the most mis-diagnosed disorders as their symptoms often represents disorders of other nature, thus imaging tests such as CT scan or MRI as often required to confirm diagnosis as well as to locate the originating location of inflammation.

### 1. Mandatory Criteria For Diagnosing Neurological Disorders

The location/area of body where symptoms are manifesting is all connected by a single traversing nerve – there is one common nerve across the area showing symptoms.

### 2. Causes of Neurological Disorders

As mentioned above, inflammation can either be caused by injury (damage) or infection.

a. Injury(damage) can be caused either by :

nerve compression (tumor, disc herniation, etc.) and injury/trauma/accidents resulting in direct or indirect damage to nerves (especially to brain or spinal cord) – includes stroke

Chronic disorders (diabetes, thyroid dysfunction, multiple sclerosis, parkinsons, vitamin deficiency, psychological stress, etc. including auto-immune disorders) and damage to any organ(s) (due to exposure to toxins and alcoholism or any substance abuse).

Auto-immune disorders are albeit injury to self by the body.

b. Infection can be caused by any microorganism, especially bacteria or virus, and few notable examples are meningitis, ventriculitis, encephalitis, meningoencephalitis, myelitis, etc. Bacterial and viral infection that usually majorly affect other parts of body also sometimes affect the nervous system and manifest symptoms – the latest example being COVID-19. Also includes parasites.

### B. Gastrointestinal Disorders – Caused by Either Air Element or Fire Element, or Both.

The gastrointestinal system is albeit a very complex and complicated one, and disorders manifesting symptoms in it are caused by inflammation in either the Air element or Fire element, or both.

### Mandatory Criteria For Diagnosing Gastrointestinal Disorders

Any one or multiple of these 5 issues : excessive gas, nausea/vomiting, constipation or abnormally hard stools, diarrhea or abnormally soft stools, and pain(stomachache).

### 2. Causes of Gastrointestinal Disorders

As mentioned above, inflammation can either be caused by injury(damage) or infection.

a. Injury (damage) in gastrointestinal system is caused by chronic disorders (diabetes, vitamin deficiency, psychological stress, etc. including auto-immune disorders) and damage to any organ(s) (due to exposure to toxins and alcoholism or any substance abuse).

b. Infection can be caused by a wide variety of microorganisms, including parasites as well as worms.

Inflammation can be either in Air element or Fire element :

Air element – referring to the movement of foods and fluids within the gastrointestinal system.

Fire element – referring to the quantity and speed of release of chemicals or hormones within the gastrointestinal system. Examples include gastric juice, insulin, bile, etc.

In case of Fire element, the source origin of inflammation is the organ which releases such chemicals or hormones.

In case of Air element – the source origin of inflammation are the intestines (either small or big or both.)

### C. Diabetes

Diabetes can be defined as the continuous presence of abnormally high level of glucose in blood for extended period of time.

It can be caused by/of either or both of these two forms –

Affecting the Fire Element: Caused by inflammation of either liver or pancreas or both (location of origin of inflammation) – wherein insulin or other chemical/hormones are not adequately produced by affected organ(s) leading to diabetes.

Affecting the Earth Element: Technically understood as glucose intolerance, where the sugar(glucose) in blood is not optimally absorbed by the body.

## IV. TREATMENT USING UNIMEDICINE

Unimedicine is introduced here as a novel system of medical science that primarily emphasizes on treatment of inflammation (with respect to “elements” as mentioned earlier) to treat all medical/health disorders – using ‘phytochemicals’. For example, in case of fever caused by a virus such as common cold, the medicine compound may be a combination of phytochemicals which possesses anti-pyretic properties and antiviral phytochemicals to ensure the disorder is treated effectively, and also other phytochemicals to assist the body’s natural immune and self-healing system to have a synergistic effect.

Unimedicine is termed as a system of modern medical science because it does not depend upon the traditional “experiential” medical systems like Ayurveda, Homeopathy, Unani, Siddha, etc. but it uses those phytochemicals which have been duly studied using modern scientific methods and observations and have been found significantly more effective than placebo – the same benchmark standard on which all allopathic medicines are approved.

The benefits to be enjoyed by Unimedicine is that the phytochemicals working as medicines in this system are already available in market in form of Homeopathic Mother Tinctures and standardized Ayurvedic Herbs/extracts.

### A. Phytochemicals

In the system of Unimedicine, treatment consists of healing inflammation to achieve homeostasis/health and the primary mode of treatment was elaborated of using phytochemicals. In nature, we have ample of phytochemicals which heals inflammation, some generally throughout the body, and some have specific anti-inflammatory actions on particular elements or elemental complexes. “Anti-inflammatory” effect refers to the effect of normalizing or stabilizing any constituent(s) of body or its elements, bringing them to normal/optimal function from Hyper-functionality or Hypo-functionality.

We take up the example of the plant ‘Bacopa Monnieri’ – mentioned in the Sample Materia Medica ahead in this paper. Bacopa Monnieri consists of phytochemicals which not only have a mild anti-inflammatory

effect throughout the body, but also has a very potent anti-inflammatory effect specifically on the nervous system, i.e. the Ether Element, throughout the body. This makes Bacopa Monneiri the primary treatment of choice for all disorders related to nervous system including psychological disorders. Another example can be taken of the plant ‘Terminalia Arjuna’, also mentioned in the Sample Materia Medica ahead. Terminalia Arjuna consists of phytochemicals which not only have a mild anti-inflammatory effect throughout the body, but also have a very potent anti-inflammatory effect specifically on the cardiovascular system, i.e. the Air Element, throughout the body. This makes Terminalia Arjuna the primary treatment of choice for all disorders related to the cardiovascular system. The last example to discuss here – ‘Tinospora Cordifolia’, also mentioned in the Sample Materia Medica ahead. Tinospora Cordifolia consists of phytochemicals which have significant anti-inflammatory effect throughout the body, with mild additional anti-inflammatory effect specifically for the Fire Element – giving it the specific properties as mentioned in the Materia Medica ahead, specifically towards the immune system.

Plants can be broadly categorized into three divisions under Unimedicine –

1. Anti-inflammatory with stabilizing effect – The plants which brings balance to both hyper-activity and hypo-activity in the constituent/body.
2. Anti-inflammatory with stimulant effect – plants which brings balance to both hyper-activity and hypo-activity in the constituent/body in initially or in small dosage, and brings stimulant effect, i.e. sympathetic activation of the Autonomic Nervous System with increasing dosages.
3. Anti-inflammatory with relaxing effect - plants which brings balance to both hyper-activity and hypo-activity in the constituent/body in initially or in small dosage, and brings relaxing effect, i.e. parasympathetic activation of the Autonomic Nervous System with increasing dosages.

The three examples discussed above in previous paragraph were the examples of the first category of plants - Anti-inflammatory with stabilizing effect.

The examples of the second category of plants, Anti-inflammatory with stimulant effect, are Tobacco(Nicotine), Coffee(Caffeine), Tea(tannins), etc.

The examples of the third category of plants, Anti-inflammatory with relaxing effect, are Valerian(valepotriates), Chamomile(Apigenin), Cannabis(Cannabinoids), etc.

These three divisions of plants are not absolute. A plant can also contain such combination of phytochemicals that it gives stimulant effects in low doses and relaxing effects in high doses, and vice versa. The practitioner has to apply his/her/etc. own intelligence. I will compile and publish the Materia Medica for reference as soon as possible from my end.

## **B. Autonomic Nervous System (ANS) Stabilization**

Having discussed about phytochemicals which are effective in all conditions - acute and chronic, I now expound here a novel treatment methodology to remove inflammation and achieve homeostasis, named “Autonomic Nervous System (ANS) Stabilization”, hereafter referred to as ‘ANS Stabilization’, which is particularly useful in chronic conditions.



To understand how ANS Stabilization works, we need to revise the function of the ANS (Autonomous Nervous System) in medical context. The body is naturally programmed to heal inflammation and achieve homeostasis, and the body does that through the ANS. The ANS is generally known to be sub-divided into two overlapping nervous systems : Sympathetic nervous system and Parasympathetic nervous system, which are also called as the Sympathetic response of ANS and Parasympathetic response of ANS. Whenever the Sympathetic nervous system is stimulated, all the constituents of body are driven towards Hyper-functionality, and whenever the Parasympathetic nervous system is stimulated, all the constituents of body are driven towards Hypo-functionality. It is through the balanced stimulation of Sympathetic and Parasympathetic systems that the ANS maintains homeostasis in body and heals inflammation naturally. The HPA (Hypothalamus-Pituitary-Adrenal) Axis as well as Sympathetic-Adrenal-Medullary (SAM) Axis can also be considered as a part of, or depended on, the ANS, as the Central Nervous System (CNS) works mutually with ANS to trigger release of endocrine hormones and neurotransmitters, some of which are potent natural anti-inflammatories. If the state of ANS is Sympathetic (Hyper-functional), the CNS also functions Hyper-actively and releases endocrine hormones & neurotransmitters accordingly, and if the state of ANS is Parasympathetic (Hypo-functional), The CNS also functions Hypo-actively and releases endocrine hormones & neurotransmitters accordingly.

Having understood these basics, now for the purpose of treatment of chronic conditions, the methodology of ANS Stabilization is as follows :

1. Identify whether the chronic inflammation is due to Hyper-functionality or Hypo-functionality.
2. Identify the elements and area which are affected by inflammation.
3. If the inflammation is due to Hyper-functionality, Parasympathetic Nervous System should be stimulated.
4. If the inflammation is due to Hypo-functionality, Sympathetic Nervous System should be stimulated.
5. If cases where inflammation is limited to a particular body area only: the sensation of Heat (Thermotherapy) will trigger Parasympathetic response and the sensation of Cold (Cryotherapy) will trigger Sympathetic Response.
6. If the inflammation is spread throughout the body, not localized to any particular area: overall ANS should be stimulated, Sympathetic or Parasympathetic as the case requires, using either Brainwave/Neural Synchronization or Neuro-Psychological tools such as Psychotherapy or Hypnotherapy, which are significantly able to trigger Sympathetic and Parasympathetic responses in reaction to emotions perceived by brain.

On the Neuro-Psychological front, we have to understand the neuro-psychological dimension of the ANS. The neuro-psychological function of ANS for which it exists/evolved is to control the internal functioning state of body directly on the basis of perception of surrounding environment by the central nervous system. This is a beautiful functioning which we have to understand - the Central Nervous System perceives the environment, and then using the Autonomic Nervous System, brings internal changes according to its perceived environment, based on its social conditioning. The Central Nervous System includes our thoughts, memories, and perspective of looking at life – our interpretation of reality. The meanings and names we assign to this meaningless existence for the purpose of survival & reproduction, what may be called as intelligence, is co-dependent on the Central Nervous System. Any life form, any animal, without the Central Nervous System, can never be intelligent. Their intelligence is directly proportional to the

complexity of their nervous system. The Unibrain Theory and The Unimind Metamodel clearly define the blueprint of mind & brain, confirming that intelligence is only a by-product of the Central Nervous System, especially the brain. Coming to the point of treatment, if we make the patient realize/feel that he/she/etc. is safe, like in the relaxing feeling of being safe at home, the parasympathetic response of ANS activates and everything in body starts relaxing and slowing down, towards Hypo-functioning as described earlier. On the other hand, if we can make the patient realize/feel that he/she/etc. is in danger or in a hostile environment, like in the feeling of stressful fear of any uncertainty, the sympathetic response of the ANS activates and everything starts to pump up and increase, from heartbeat rate to breathing rate to blood pressure to tremors, towards Hyper-functioning as described earlier. In other words, the more comfortable the patient is, more of parasympathetic response happens, and the more stressed the patient is, more of sympathetic response happens.

Lifestyle changes are therefore very effective to bring about more positive interpretation of reality by creating a routine (comfort zone) & reducing uncertainty, thus increasing parasympathetic response to induce natural relaxation. Lifestyle changes are also clinically observed to be very effective for all chronic diseases prevalent today – diabetes, hypertension, thyroid, pcod, depression, etc. which are all commonly caused by chronic stress/sympathetic response of ANS. They are so effective that nowadays it is labelled as a separate sub-field in medicine known as “Lifestyle Medicine”.

The COGNISHEILD technique can also be used to mildly/slowly stabilize the ANS as it normalizes the activity in the Central Nervous System, in turn normalizing the Autonomic Nervous System, leading to Homeostasis.

### **C. Brainwave Synchronization Therapy**

Brainwave Synchronization, also known as Neural Entrainment, uses the brain’s natural frequency-following-response to rapidly train the brain to operate/function at any desired specific brainwave frequency. There are many methods for brainwave synchronization, namely, isochronic tones, binaural beats etc. The machine/test used for reading brainwaves is known as EEG (Electroencephalography). Follow one basic rule – slower brainwaves are connected with parasympathetic response in the ANS, and faster brainwaves are connected with sympathetic response in the ANS. In more technical terms:

Delta Brainwaves (0.5 hz to 3 hz) will activate parasympathetic response highly, usually sleep.

Theta Brainwaves (4 hz to 7 hz) will activate parasympathetic response moderately

Alpha Brainwaves (7 hz to 12 hz) will bring a state of homeostasis with mild parasympathetic state.

Low Beta Brainwaves (13 hz to 19 hz) will bring state of homeostasis with mild sympathetic state.

High Beta Brainwaves (20 hz to 32 hz) will bring state of homeostasis with moderate sympathetic state.

Gamma Brainwaves (>33 hz) will bring state of homeostasis with a sympathetic state where psychological hyper-functionality (of the Central Nervous System) is more than the physical hyper-functional effects manifesting via Autonomous Nervous System. Psychological alertness is usually observed. With due time, the Autonomous Nervous System adjusts to achieve homeostasis, and only the sympathetic effects on Central Nervous System (mind) remains prominent.

Thus, ANS Stabilization can also be achieved as desired using Brainwave Synchronization Therapy.



#### IV. MENTAL HEALTH (PSYCHIATRY & PSYCHOLOGY)

In the system of Unimedicine, all types of psychological & psychiatric disorders cannot be treated only by using phytochemicals – psychotherapy is also needed. The practitioner should first understand the complete framework of mind/psychology from the Unimind Metamodel and the complete neurological architecture of brain from the Unibrain Theory, and then the methodologies of the Unimind Therapy should be applied as psychotherapy. I also recommend teaching COGNISHEILD Technique And Self-Questioning Therapy (SQT) to patient as a general yet effective panacea. Complete texts of these mentioned research papers are included in this paper in subsequent sections.

#### V. SAMPLE MATERIA MEDICA of Unimedicine :

1. Plant Name : Terminalia Arjuna

Phytochemical Properties : positive inotropic, anti-ischemic, antioxidant, blood pressure lowering, antiplatelet, hypolipidemic, antiatherogenic, and antihypertrophic

2. Plant Name : Tinospora Cordifolia

Phytochemical Properties : anti-diabetic, antipyretic, antispasmodic, anti-inflammatory, anti-arthritic, antioxidant, anti-allergic, anti-stress, anti-leprotic, antimalarial, hepato-protective, immunomodulatory and anti-neoplastic activities.

3. Plant Name : Azadirachta indica

Phytochemical Properties : immunomodulatory, anti-inflammatory, antihyperglycaemic, antiulcer, antimalarial, antifungal, antibacterial, antiviral, antioxidant, antimutagenic and anticarcinogenic

4. Plant Name : Bacopa Monnieri

Phytochemical Properties : memory enhancing, tranquillizing, sedative, antidepressant, antioxidant, cognitive, anticancer, antianxiety, adaptogenic, antiepileptic, gastrointestinal effects, endocrine, gastrointestinal, smooth muscle relaxant effects, cardiovascular, analgesic, antipyretic, antidiabetic, antiarthritic, anticancer, antihypertensive, antimicrobial, antilipidemia, anti-inflammatory, neuroprotective, and hepatoprotective

#### VI. NOTE

The developer of Unimedicine (author) is working on compiling the complete Materia Medica for Unimedicine, which will be published subsequently. The author is also working on subsequently publishing the further technicalities of Unimedicine, such as detailed and intricate interactions of elements/complexes, etc. In this research paper only Neurological disorders, Gastrointestinal disorders and Diabetes are stated, others such as Cardiological disorders, Urological disorders, Gynaecological disorders, Orthopaedic disorders, Hypertension, Cancer, etc. shall be stated in subsequent research papers. Having said that, the fundamentals provided in this paper are complete to enable any person to build upon further and to practice this scientific system of alternative medicine effectively.

#### Section 2 :

The Unimind Metamodel and The Unibrain Theory, reference no. 3 & 4 respectively. (mentioned at the end of this paper)

Unimind Metamodel :: The "Unimind Metamodel" presents an unified framework/metamodel that provides the underlying infrastructure/mechanism of brain/mind which smoothly integrates with all sub-fields of psychology. The Unimind Metamodel "Therapy" provides a novel treatment methodology for mental/psychological disorders. The Unimind Metamodel is also a functional framework for developing Artificial Intelligence.

## I. FUNDAMENTALS OF THE UNIMIND METAMODEL

The Unimind Metamodel states that within each brain/mind, there is a subjective representational model of reality, which consists of three parts - 'entities' or 'objects', a "database of algorithms", and a "database of associations".

A. The Representational Model - Objects / Entities Every brain/mind has a subjective representational model or a "map" of reality - and by 'reality' we refer to the sum total synergy of everything that the brain/mind can perceive through sensory organs. This map contains "entities" or "objects" which can be a representation of either 'things' (tangible or intangible), or 'living beings' (consisting of their physical attributes, overall personality, specific behaviors and the memories and emotions associated with that being), or 'abstracts' (which can be a generalized prototype of things, and also includes abstract ideas, thoughts and concepts i.e. specific elements of abstract information/knowledge), or 'words' (explained later in this paper), or the memories of past experiences. These objects/entities are created within the map on the basis of information received about them from the sensory organs. All the objects in our maps are multi-dimensional in nature; meaning that all the objects in our map can have multiple dimensions associated with them. The word "Dimension" comes from the Latin word dimensionem which refers to the act of "Measuring" something. Therefore a dimension shall be construed as a way of perception of an object ; as a way of looking at an object. An object in our map can have a shape, colour, visible texture, size, etc - namely the "visual" dimension perceived through eyes. The same object can also possess an associated sound or voice (being the "auditory" dimension as perceived by ears); the same object may also have an associated odour or fragrance (being the "smell" dimension as perceived by the nose); and similarly with the dimension of taste and touch (as perceived by tongue and skin respectively). All objects mandatorily possess the dimension of memory, i.e. the record (i.e. 'associations' as explained later in this paper) of all past experiences perceived through senses that are associated with that object. An inherent feature of these objects is that they are dynamic in nature - meaning the objects are continuously being changed (or "updated") with the continuous inflow of information from the sensory organs - subject to algorithms.

B. Database of Algorithms An algorithm is defined as a step-by-step procedure or a set of instructions. Algorithms contains such instructions/procedures about how to perform a task (action). Such task may be a biological process, psychological process or learned physical/mental work. Biological processes here refer to the body functions regulated/controlled by the central nervous system; and psychological processes here refers to all the abstract functions performed by the brain/mind. Learned physical/mental work refers to any externally acquired or self-generated ability of performing any specific task/work/action, either physically or mentally. Algorithms can also contain instructions / procedures of how to react (behave/act/respond) to specific stimulus or to a specific situation – such algorithms are called as "behaviour". Algorithms work as programs (analogy can be drawn with softwares/applications) that run

in mind, in collaboration with the representational model (map) and the database of associations, and thus execute various functions of brain/mind. Algorithms can be either running continuously in brain/mind or they can be executed as and when required. Algorithms are also dynamic in nature – meaning that all algorithms change or “update” but with the sole intention and purpose of achieving the biological goal of humans i.e. survival and reproduction. (Refer to 'The law of algorithmic evolution' explained later in this paper)

C. Database of Associations The Database of Associations is an abstract database in the brain/mind that contains all the associations between/among the objects of one's map; and also includes associations between/among one's map's objects and neurochemicals and hormones within one's body. One object can have multiple associations (i.e. with multiple other objects/neurochemicals/hormones). The associations in the database of associations are also dynamic in nature – meaning that the associations can change or “update”, on instruction of any algorithm or due to 'The law of algorithmic evolution' (explained later in this paper).

## II. LINGUISTICS IN THE UNIMIND METAMODEL

Before understanding the "Linguistics" or the language processing mechanism as per the Unimind Metamodel, we need to clarify the fundamentals of linguistics. Language has evolved in humans and various other life forms to enable communication among the members of a species, using arbitrarily decided symbols/sounds/visuals and body gestures, or a combination thereof. And by communication we refer to the process of transferring of 'abstracts' objects i.e. concepts/ideas/thoughts/knowledge/information (as mentioned earlier) from one's map to the map of another. Language uses "words" which are objects in one's map that can have multiple dimensions such as an associated visual/symbolical representation, an associated sound, an associated body gesture, etc., and in the 'database of associations', 'words' are associated with 'abstracts' objects and this association of words with abstracts are called as the "meaning" of those words. Language also uses "sentences" which are a combination of words used to communicate large pieces of information.

A. Algorithm Of Meaning Identification In the 'database of algorithms' exists an algorithm of "meaning identification" that is continuously running in brain/mind - whenever we get any sound/auditory input from ears or any visual input from eyes, or any input from any other sensory organ - the meaning identification algorithm tries to find individual objects/elements within the information received from sensory organs and then refers to the 'database of associations' to ascertain the 'abstracts' objects associated with those individual objects (i.e. their meanings) to obtain the understanding of that information received through sensory organs. In case of sentences, the meaning identification algorithm ascertains the meaning of individual objects and then combines them to find and ascertain a larger meaning/understanding, depending upon the sequence/arrangement/chronology of the objects. The rules of grammar of a language learned by the mind guides its meaning identification algorithm in decoding sentences of that language. The brain/mind uses the same mechanism to process larger pieces of information like paragraphs, chapters and books. The same mechanism is also used to interpret audio-visual sensory inputs such as videos/movies, and also to interpret "body language". Whenever this algorithm processes/finds any new meaning(combination of words and correlated 'abstracts' objects) which is not stored already in map, then new objects/entities for such meaning ('words' and 'abstracts') for are created and stored in the map for future reference along with creation of necessary associations in the database of associations (i.e.

associations within the word and abstracts as well as with the previous objects/entities from which this new meaning is processed/connected, if any).

### III. COGNITION (INFORMATION PROCESSING AND MEMORY) IN THE UNIMIND METAMODEL

Cognition can be defined as the mechanism of processing, storage, retrieval and manipulation of the information that is received from the sensory organs. Cognition is a synergistic collaboration of multiple algorithms running in the brain/mind. Such different algorithms in the brain's/mind's database of algorithms that work together in synergy to produce cognition / cognitive abilities are as follows :

A. Algorithm Of Attention / Filtration Our sensory organs receive a lot more quantity of information than our biological brain could process – and thus is a need to filter out useless or irrelevant information and only allow the relevant/important information to be processed by brain/mind in any particular circumstance/situation. This very same process is called as “attention” or “filtration”, of choosing what information from sensory-input is processed and the remaining is ignored. For this purpose, there is an algorithm of “attention/filtration” that is running continuously in the brain/mind - this algorithm gets input of information from all sensory organs and then sends it to the algorithm of meaning identification, which returns back objects (or their combinations) along with their meanings(associations as explained above) back to the algorithm of attention/filtration. Now this algorithm makes the decision - which information will be processed further by brain/mind and the remaining will be ignored. This decision is based on the “relevance” of the information – and by relevance we mean that if the information (objects or their combination thereof + their meanings) is in any way associated/connected with any of the other algorithms running in the brain/mind at that present moment. If the information is relevant, i.e. an association between the input information and presently running algorithms exists, such information is allowed for further processing and the remaining information is ignored. Among the pieces of information (objects or their combinations thereof + their meanings) that are allowed for further processing, the algorithm of attention/filtration sends out the most relevant pieces of information first – i.e. to say the algorithm sends out the selected pieces of information for further processing on the basis of their relevancy – as relevancy can differ by degree; one piece of information can have a lot more associations with the presently running algorithms than another piece, and such most relevant piece of information is process first, then the next most relevant one, and so on.

B. Algorithm Of Pattern Recognition The function of algorithm of pattern recognition is to identify patterns in a piece of information (or to identify the objects/entities in such information) and to predict / calculate the possible subsequent or previous extension to that piece of information. A "pattern" hereby means a set of repetition in any particular piece of information which can help in prediction/calculation of the information which could be a subsequent or previous extension to that piece of information. If the given piece of information has similar sequence/chronology as any of past memory, then the prediction/calculation is based on such past memory, in case of multiple memories, the one having most degree of similarity; or else if no past memory association is present, then the algorithm of pattern recognition sends that piece of information to the algorithm of meaning identification, which returns back to the algorithm of pattern recognition with the objects or their combinations thereof along with all their meanings (associations), and then the algorithm of pattern recognition tries to find a sequence/arrangement

or chronology within the meanings/associations, by referring to all the 'abstracts' objects it has in its map and then arrives at the pattern with most associations, subject to confirmation of that pattern by any 'abstracts' object or any past memory experience.

C. Algorithm Of Information Storage (Memory) The algorithm of information storage (memory) is a continuously running algorithm that governs the process of creation of memories. It creates five dimensional objects in one's map for/of each different "scenario" that is experienced. 'Scenario' here means a time period (situation or circumstance) where there is a definite number of objects / entities in the surroundings that are perceived by the sensory organs - any change in the number of perceivable objects / entities in the surroundings results in another 'scenario' (i.e. change of scenario). These mentioned 'scenario' objects have the five dimensions that are the information input from the five sensory organs, after being processed by the algorithm of attention / filtration. Along with the creation of an object for complete scenario, the algorithm of information storage also makes new objects/entities in the map, for the objects/entities which were a part of the scenario and were not in the map earlier already. It also makes the new associations in the database of associations, for each newly created object(scenario) (and the objects/entities within that scenario) with already existing objects in the map and/or with neurochemicals and hormones - depending upon the sequence/chronology as given by the algorithm of attention/filtration. This algorithm also changes or "updates" the dimension of memory of each of the object/entity present in the scenario ("dimension of memory" as explained earlier).

D. Algorithm Of Virtual Experiencing (Memory Retrieval And Imagination) All other algorithms work upon the input of information that is received from either the sensory organs or from another algorithm. The algorithm of Virtual Experiencing (memory retrieval and imagination) generates fictitious stream of sensory information which it can feed into other algorithms in the place of real information input from sensory organs. This algorithm is running continuously in the brain/mind and whenever any object/entities (any type including 'scenario') is remembered/recalled by any other algorithm (referring to the database of associations), this algorithm generates the streams of fictitious sensory information based upon such object/entity and feeds it into the calling algorithm. This algorithm can also merge/mix the streams of fictitious sensory information from multiple objects/entities, on instructions of any another algorithm, and thus create streams of fictitious sensory information that were never experienced before, and the same be fed into other algorithms in place of real sensory information input - is what is termed as "imagination".

E. Algorithm Of Thinking (Thoughts) In The Unimind Metamodel, 'thinking' is defined as the process of creation of thoughts; and 'thoughts' can be defined as temporary multi-dimensional objects/entities that are created by the continuously running algorithm of thinking - on the demand of any other algorithm. After such temporary multi-dimensional objects are created, if such objects possesses 'meaning' and 'relevance' (as defined earlier), such objects are 'converted into permanent', i.e. by moving them into the 'map' and making the necessary associations for them in the database of associations. This algorithm creates such temporary objects/entities using the algorithm of virtual experiencing - firstly, the algorithm of thinking receives instructions from any other algorithm that demands to create a new object/entity as per specific requirements, then the algorithm of thinking calls the algorithm of virtual experiencing to access the required already existing objects from map, and thus getting fictitious sensory information input as per desired requirements, and this new temporary object is created by the algorithm of thinking based



on the fictitious input from algorithm of virtual experiencing, and then the algorithm of thinking calls up the algorithm of meaning identification, and if it finds significant 'meaning' and 'relevance' of this temporary object, it is 'converted into permanent' (as explained above). The algorithm of thinking also takes help of algorithm of pattern recognition if it is required - if the new desired object demands some information which is not available or already existing in the map, or if there is some 'meaning' or 'relevance' but not sufficient enough for its purpose, then this algorithm uses algorithm of pattern recognition to predict/compute information and thus "fill in the gaps" of information in that new object so that the desired new object can be created or the 'meaning' or 'relevance' of the created temporary object can be increased, as per the initial requirement of initial demanding algorithm.

#### IV. LAW OF ALGORITHMIC EVOLUTION

The law of algorithmic evolution states that the brain/mind is inherently programmed to evolve by creating/developing new algorithms based on the requirements of survival and reproduction - either for the present 'scenario' or for a long-term duration (or both); and also by learning/acquiring new algorithms from any set of definite sequence of information/instructions processed by any other algorithm or received from any sensory organs, that may be useful/helpful in survival and reproduction. This also includes changing / updating of old algorithms if required. All the necessary inclusions/changes in the database of associations relating to such new/updated algorithm are done automatically, as well as the necessary creation/modifications of objects/entities in the map as required by such new/updated algorithm are also done automatically.

##### A. Significant Consequences Of The Law Of Algorithmic Evolution

1) **Morality/Conscience:** Morality/conscience (i.e. the ability to discriminate between good/evil or right/wrong and the inclination towards choosing the good/right) is an acquired algorithm (behaviour) that is an integral component of any individual that is a part of any society/culture, and, without such algorithm within a significant majority of its members, any such society/culture will collapse in long run. The function of morality/conscience is to provide protection to each member of a society/culture from all its other members. Society/culture refers to a particular group of individuals of a single species, and all such individuals within that group share few common/identical algorithms (in their database of algorithms), objects/entities (in their map) and associations (in their database of associations). The function and the cause of existence/evolution of society/culture to ensure survival and reproduction of its members, and to help in their growth through collective effort. A society/culture is also subject to the process of natural selection (Darwinian evolution) and therefore it can survive in long run only a significant majority of its members possesses morality/conscience so that they don't kill or harm each other within the group. Morality/conscience drastically helps in growth of the society/culture as its members can now focus on various other works instead of defending themselves from others members.

2) **Personal Identity:** as an individual becomes a part of society/culture, such individual is assigned arbitrary "identifier" words (can be multiple - includes names, designations, nationality, descriptions, etc.) that are used to identify that individual within the group. As a result of this, a new algorithm is acquired by the brain/mind - the algorithm of personal identity - which runs continuously in brain/mind and it continuously scans the information input from sensory organs for such identifiers and whenever it



recognizes any such identifier, it instructs the algorithm of attention/filtration to process the related piece of sensory information input at priority

## V. EMOTIONS IN THE UNIMIND METAMODEL

What we call "emotions" are the different neuro-biological states that are induced by release of certain neurochemicals or hormones within the body. The qualitative intensity of emotions are directly proportional to the quantitative release of associated neurochemicals or hormones. The database of associations contain the associations between the objects in one's map and neurochemicals or hormones - these associations are created and then processed by the algorithm of emotional response which finally results in what are felt as emotions.

A. Algorithm Of Emotional Response The algorithm of emotion identification runs continuously in brain/mind and decides which emotion to feel (i.e. which neurochemicals or hormones to release) in response to the present scenario that is being currently experienced ("scenario" as explained earlier).. If the present scenario that is being experienced is drastically similar to any scenario that has been experienced in past, then this algorithm automatically triggers neurochemicals or hormones that are associated with the that past experience in the database of associations - and if the present scenario is relatively new or has never been expericed before, then it calls upon the algorithm of emotion identification.

B. Algorithm Of Emotion Identification The algorithm of emotional response has the functions of deciding which emotion to feel (i.e. which neurochemicals or hormones to release) in response to a particular scenario and to add/include such association between the scenario and neurochemicals/hormones in the database of associations. It can also changes or "updates" previous associations in the database of associations, if required. How the decision of 'which emotion to feel' is taken by this algorithm, can be reduced down to two very simple conditions, that are –

- 1) If the scenario is positive for survival and reproduction = release serotonin, dopamine, oxytocin and endorphins + reduce release of cortisol
- 2) If the scenario if negative for survival and reproduction = release adrenaline and cortisol + reduce release of serotonin, dopamine, oxytocin and endorphins

The qualitative intensity of emotions are directly proportional to the quantitative release of associated neurochemicals or hormones - and the quantitative release is directly proportional to the level/intensity of positivity or negativity of the scenario for survival/reproduction. Such level/intensity is always subjective depending upon the memories of past experiences and the algorithms running during that time.

## VI. THE UNIMIND METAMODEL THERAPY

The Unimind Metamodel Therapy is a novel treatment/therapy for mental disorders, based upon The Unimind Metamodel. As per The Unimind Metamodel Therapy, all mental/psychological disorders can be possibly treated by changing/altering associations in the database of associations. The mechanism and treatment methodology of various mental disorders under The Unimind Metamodel are as follows –

### **A. Depression and Anxiety**

Depression / anxiety is the result of constantly reduced levels of certain neurochemicals, that are serotonin, dopamine and endorphins (and oxytocin in certain cases). Such constant low levels of these certain neurochemicals are caused by an acquired "algorithm of depression / anxiety" . This algorithm of depression / anxiety is an automatic result of either continuously having experiences for a long duration which were negative for survival and/or reproduction, or experiencing a single drastic negative traumatic event. This algorithm is a defence mechanism that is implemented by the brain/mind. A type of depression in which the subject experiences rapid changes in the neurochemicals or hormones is termed as "bipolar depression/disorder". In the case when depression / anxiety is the result of long-term negative experiences, a new algorithm has to be created which constantly reminds the subject of any positive experience (either a real positive experience from past memory, or a virtual experience created through counseling and hypnosis). In the case depression / anxiety is caused by a single drastic negative traumatic experience, such negative experience should be broken down into smaller details/parts and then these details/parts of that experience should be associated with various individual positive experiences through counseling and hypnosis.

### **B. Schizophrenia**

Schizophrenia is defined as a disorder in which the subject loses the ability of, or experiences problem/difficulty in, discriminating reality from imagination or false beliefs. This disorder is a result of dysfunction in any algorithm that continuously runs in brain/mind. This disorder usually have neuro-biological causes, but many times it is also a result of a single drastic negative traumatic experience. It's treatment requires a comprehensive approach of counselling and hypnosis through which all the unreal or disfunctional associations in the database of association have to be figured out and then changed/corrected, and all the unreal/dysfunctional objects in map have to be 'repaired' (repaired by replacing the previous object by creating a new and more realistic version of that object through counseling and hypnosis). Schizophrenia also includes psychosis. Schizophrenia can also co-exist with depression or anxiety, and schizophrenia often co-exists with PTSD, therefore it may require additional treatment methodologies that are explained under the headings of depression/anxiety and PTSD.

### **C. Post-Traumatic Stress Disorder (PTSD) And Phobias**

PTSD and all types of phobias are caused by a single drastic negative traumatic experience, either experienced in reality or experienced vicariously (i.e. by observing anyone else having such experience). PTSD usually results in constantly elevated levels of stress hormones and neurochemicals like adrenaline, norepinephrine and cortisol; whereas in all types of phobias is a sudden surge/release of such mentioned stress hormones and neurochemicals whenever the subject is reminded of (i.e. processes any information associated with) the causing drastic negative traumatic experience. Phobias also includes paranoia. The treatment of PTSD as well as all types of phobias requires counseling and hypnosis in which the causing negative traumatic experience is broken down into smaller details/parts and then each such detail/part of that experience is given a new perspective or 'meaning', i.e. the already existing associations of such experience are proven false, and then they can also be associated with other positive experiences. PTSD can also cause depression or anxiety, which requires additional treatment methodology that is explained under the heading of depression and anxiety.

#### D. Personality and Identity Disorders

as per The Unimind Metamodel, 'personality' refers to the unique set of algorithms that runs in an individual's brain/mind in any particular 'scenario'. Therefore, under The Unimind Metamodel, in normal case, an individual does not possess a single personality, but rather a large assortment of personalities for a large assortment of 'scenarios'. On the other hand, "identity" refers to the set of all continuously running algorithms within an individual that remain constant in all scenarios. All the personality and identity disorders occur when the individual switches/changes between multiple such personalities, within a single 'scenario', or if frequent changes in identity are observed in such individual by others. False/imaginary changes within the 'algorithm of personal identity' are also considered an identity disorder. Personality/identity disorders are not separate disorders in itself, but they are a result of another mental disorder such as depression/anxiety, schizophrenia or PTSD. The treatment of personality disorders requires identification and treatment of the causing underlying disorder. Many times such underlying causing disorder is asymptomatic in itself and personality disorder is the only observable condition, and thus its treatment requires a comprehensive approach.

#### E. "Escape" Disorders

In The Unimind Metamodel, "Escape disorders" refers to a number of acquired algorithms (behaviours) that function as an "escape" from, or a defence mechanism, against any other mental disorder. Examples include addictions (i.e. substance abuse disorders and sex addiction), eating disorder (such as bulimia) and obsessive compulsive disorder (i.e. subconscious repetitive behaviors). While addictions and eating disorders are usually defense mechanisms against depression and anxiety (because they cause spike/increase in neurochemicals and hormones which are observed reduced in depression/anxiety); obsessive compulsive disorder is usually a defence mechanism against an underlying phobia (as it provides a sense of security and comfort). The treatment of such "escape disorders" requires identification and treatment of the causing underlying disorder. Sometimes such underlying causing disorder is asymptomatic in itself and the 'escape disorder' is the only observable condition, and therefore its treatment also requires a comprehensive approach.

**Unibrain Theory:** The Unibrain Theory presents the counterpart of The Unimind Metamodel. It gives an unified functional computerscience based neuroscientific architecture of the brain as an electro-chemical infinite-state automata. It explains how the brain encodes, stores and processes information, how it performs its functions / faculties, explains the phenomenon of consciousness and the function of sleep and dreams. The Unibrain Theory is also a functional architecture for developing Artificial Intelligence.

### I. PRETEXT

The "brain" as mentioned everywhere in this research paper (The Unibrain Theory) refers to the physical brain (i.e. large network of neurons / connected network of neural tissues), rather than the abstract brain (i.e. mind / psyche) as mentioned in The Unimind Metamodel. The "brain" as referred to in this research paper not only includes the brain inside the skull, but also includes the spinal cord and connected neural tissues (i.e. the central nervous system) and also includes the enteric nervous system. The connected system of sum total network of neural tissues (neurons) all over the body constitutes the brain.

## II. ESSENCE OF THE UNIBRAIN THEORY

The Unibrain Theory states that the brain is an electro-chemical infinite-state automata, in which synergistically working network of neurons in different areas of the brain acts as different electro-chemical combinational logic circuits which performs different functions, and each of them is built up of large number of neurons which individually acts as electro-chemical universal logic gates.

## III. INDIVIDUAL NEURONS AS ELECTRO-CHEMICAL UNIVERSAL LOGIC GATES

Logic gates are the building blocks (fundamental components) that performs individual boolean calculations/functions/operations and when combines collectively they constitute a combinational logic circuit. Examples of logic gates include AND, OR, NOT, etc. An universal logic gate is a type of logic gate that can perform all types of boolean calculations/functions/operations by combining with similar universal logic gates themselves, without any need of any other type of logic gate. Examples include NAND and NOR. A functional combinational logic circuit to perform any specific task/operation can be created by using combinations of only a single type of universal logic gate. Neurons, as we already know, communicate via electro-chemical signals. An individual neuron receives electro-chemical input from its dendrites and outputs electro-chemical signals via its axonal terminals/synapses. According to The Unibrain Theory, the individual neuron is a type of universal logic gate, which in different combinations can perform all possible boolean operations and form electro-chemical combinational logic circuits. As we already know that different parts/areas of brain perform different functions, The Unibrain Theory states that these different parts/areas of the brain are the different electro-chemical combinational logic circuits that performs different tasks, each of them built up of large number of neurons as stated above.

## IV. DIFFERENT AREAS OF THE BRAIN AS DIFFERENT ELECTRO-CHEMICAL COMBINATIONAL LOGIC CIRCUITS : THE DATABASE OF ALGORITHMS

Combinational logic circuits are a type of circuit that gives a specific determined output in response to a specific information input. These circuits are a combination of logic gates - and the specific combination of logic gates in a circuit determines the unique inputoutput combinations of that given circuit. As we understood above that neurons are electro-chemical universal logic gates, The Unibrain Theory states that in different parts/areas of brain, neurons group together to form different electro-chemical combinational logic circuits which perform different functions. Such combinational logic circuits in brain can inter-connect to form larger combinational circuits to perform complicated tasks (faculties). These electro-chemical combinational logic circuits are the "algorithms" as described in The Unimind Metamodel. The algorithms as told in The Unimind Metamodel manifest in the brain as these electro-chemical combinational logic circuits. The unique input-output combinations of each combinational logic circuit (individual algorithm) enables it to perform a specific task/operation - triggered/initiated/started either by another circuit (another algorithm), or by information input from sensory organs, or automatically based upon the internal clock of the body (known as the "circadian rhythm" which is in itself a combinational logic circuit) - depending upon that circuit (individual algorithm). Complex algorithms are made up of a group of smaller algorithms - i.e. small combinational logic circuits in brain inter-connects / combines to form larger complex combinational logic circuits.

## **V. HOW THESE COMBINATIONAL LOGIC CIRCUITS ARE FORMED AND CHANGED/UPDATED : THE LAW OF ALGORITHMIC EVOLUTION**

As stated in The Law of Algorithmic Evolution given in The Unimind Metamodel, The brain/mind is inherently programmed for the formation and alteration/updation of algorithms as an automatic and dynamic process guided by the sole aim of survival and reproduction of the body in which it is operating - same applies on the formation and alteration/updation of the combinational logic circuits in the brain, as we learned above that they are verily the "algorithms" of The Unimind Metamodel. An important thing to note, is that, in reference to The Unimind Metamodel, each mind/brain has its subjective meaning of survival and reproduction, depending upon the subject's circumstances/environment/scenario and past memories/experiences, and its overall "map of reality". Therefore all the individual members of any species or society/culture (as explained in The Unimind Metamodel) although having many algorithms in common, also possess few unique algorithms (i.e. combinational logic circuits) in the brain. The exact technical process of the formation/updation of electro-chemical combinational logic circuits in the brain is through the process of "dynamic permutation" - i.e. the brain automatically and dynamically arranges or re-arranges its neurons to create the required combinational logic circuits to perform any specific task/operation. It also includes combining / inter-connecting smaller combinational logic circuits to form larger combinational logic circuits that performs complex mental/physical/biological functions. In the reference to the Law of Algorithmic Evolution, it can be said that the brain is inherently programmed to arrange or re-arrange its neurons to create such electro-chemical combinational logic circuits (algorithms) which supposedly fulfils the aim of survival and reproduction of its body as per its own subjective definitions. This process is the foundational principle / concept behind the "neural networks".

## **VI. MEMORY - HOW THE "OBJECTS/ENTITIES" ARE STORED IN THE BRAIN**

The "objects/entities" as per The Unimind Metamodel, which includes language as well as memories, that can be referred to as the overall "memory" part of brain, and such is stored in the brain in form of electro-chemical combinational logic circuits only. Individual objects/memories in the brain are just a specific integrated combination of sensory information, and each individual object/memory is stored in the brain in form of a unique combinational logic circuit that functions to verify/match/compare that information of a specific object/memory with the input information, and outputs how much the input information is identical with the object that circuit represents. Therefore we can say that the objects/memories are stored in the brain in forms of algorithms only; each individual objects/memories is represented by a unique combinational logic circuit that outputs quantitative value about how much the input information is identical to the sensory information of the object/memory which that circuit represents. In reference to The Unimind Metamodel, the sensory information input to these combinational logic circuits can be either from the sensory organs or from other algorithms (other combinational logic circuits).

## **VII. DATA STRUCTURE OF THE BRAIN : THE DATABASE OF ASSOCIATIONS**

The "database of associations" as per The Unimind Metamodel is the data structure of the brain - it does not exist independently but it is rather the structure of the brain itself - the "associations" are the connections among one circuit in the brain with other circuits. As we have learned that these electro-chemical combinational logic circuits can be either algorithms including objects/memories, the physical connectivity of such group of neurons (circuit) with another group of neurons (circuits) is the manifestation of "associations" of The Unimind Metamodel. In short, the inter-connections among the different



combinational logic circuits in the brain are the "associations" - and these associations form the data structure of the brain which is a hybrid combination of graph data structure and tree data structure.

### **VIII. BRAIN AS AN ELECTRO-CHEMICAL INFINITE-STATE AUTOMATA : THE SUBJECTIVE REPRESENTATIONAL MODEL OF REALITY**

An automata as we know is a type of computer/machine which operates automatically and independently without any external control. Automata are also considered synonymous with Artificial Intelligence. As we learned, the brain is a collection of a large number of electro-chemical combinational logic circuits which operate synergistically, in which the circuits are created/changed/updated automatically by itself with the aim/object of achieving survival and reproduction of the body it operates in. Therefore it is suitable to define the brain as an electro-chemical infinite-state automata. The brain in itself is the "subjective representational model of reality" as mentioned in The Unimind Metamodel. The Unibrain Theory can be considered as the blueprint for the neurobiological hardware / architecture i.e. the brain, and The Unimind Metamodel can be considered as the software / operating system / abstract framework i.e. the mind. When both of them - The Unibrain Theory and The Unimind Metamodel are combined / integrated - we get a fully functional blueprint of the electro-chemical infinite-state automata, which is the brain-mind complex. The "source code" or the fundamental foundational algorithm that is the guiding algorithm which inherently neuro-biologically programs the brain to automatically rewire itself to acquire/change/update its circuits/algorithms towards achieving the purpose of survival and reproduction of the body, is contained in the genes (DNA), and the genes (DNA) are also the physical manifestation of The Law of Algorithmic Evolution.

### **IX. THE CONCEPT/PHENOMENON OF CONSCIOUSNESS : WHAT IS CONSCIOUSNESS**

Consciousness is generally defined as the awareness of one's self and its surrounding environment. Consciousness, in reference to The Unimind Metamodel as well as The Unibrain Theory, is not a separate phenomenon, but rather is an automatic byproduct of the "algorithm of personal identity" (as defined in The Unimind Metamodel). In other words, consciousness is an automatic byproduct of a separate identity - i.e., when a brain/mind assigns/considers itself an identity separate from its surrounding environment, the phenomenon of consciousness automatically arises. It is impossible for the concept/phenomenon of consciousness to exist without a separate identity (separate from its surrounding environment - i.e. distinction between the self and the surrounding environment). Therefore consciousness can be said to be merely a concept/phenomenon created by language; no such phenomenon exists in the objective reality.

### **X. THE FUNCTION OF SLEEP AND DREAMS - OPTIMIZATION/REDUCTION/SIMPLIFICATION OF THE COMBINATIONAL LOGIC CIRCUITS**

Optimization or reduction or simplification of combinational logic circuits refers to the process in which a circuit is redesigned in such a way that it uses comparatively less logic gates to perform the very same original task/operation/function. The function of sleep is to optimize/reduce/simplify the combinational logic circuits in the brain by re-wiring them so that they become more efficient by performing the same task/operation using comparatively less neurons. Dreaming is merely a byproduct of this process, whenever a combinational logic circuit which represents an object/memory is accessed/altered during the process of sleep, that re-wiring of sensory information of such objects/memories creates a flow of sensory



information which is perceived in form of dreams. The "source code" or the fundamental foundational algorithm that is the guiding algorithm which tells the brain how to optimize/reduce/simplify the combinational logic circuits during sleep, is also present in the genes (DNA).

### **Section 3 :**

COGNISHEILD and Self-Questioning Therapy (SQT), References No. 5 and 6 respectively. (mentioned at the end of this paper)

COGNISHEILD : a simple practical technique named “COGNISHIELD” by the author which when practised, results in instant spontaneous elimination/treatment of all possible psychological disorders and it also drastically enhances cognition & mental faculties of human brain. It provides absolute conscious control of mind.

#### **A. Contextual Premises**

- 1) The possibility of existence of any psychological disorder arises only and only when thoughts exist within the mind.
- 2) Thoughts include remembrance of past/memories, forecast/calculation of future, reasoning, imagination, judgements, analysis, etc.
- 3) If the mind be in a state of absence of thoughts, no psychological disorder nor any conception of disorder could arise.
- 4) This thoughtless state of mind refers to the negation of automatically/unconsciously/subconsciously arising thoughts only – i.e. conscious & purposeful thinking is not negated.
- 5) The only possible way to achieve this state of mind having absolute conscious control over the thought-process (mind itself) as mentioned above, is by consciously shifting the awareness/alertness to the present moment of time.
- 6) As we know that time & space are two sides of the same coin (spacetime complex) – shifting one’s sensory awareness/alertness to the immediate surrounding space is the equivalent to being completely aware of/in the present time. This can be achieved easily using the COGNISHEILD Technique as mentioned below.

#### **B. COGNISHEILD Technique**

- 1) The essence of COGNISHEILD technique is to consciously shift the sensory awareness/alertness to the present moment of space/time.
- 2) This technique to be aware/alert of one’s surroundings is through consciously recognizing the sensory data input by the sensory organs. In simple words, it refers to consciously trying to see as much as the eyes are able to see, to hear as much as the ears are able to hear, and to acknowledge what the tongue, nose and skin/body are able to experience. Literally being aware/alert of one’s surroundings.
- 3) Initially, is it preferable to set an arbitrary perimeter of vicinity to start practising this technique – The room you are in or an arbitrary perimeter of 10/20/50 metres if you’re in open – the perimeter is to be increased with practise. Try to observe and be aware/alert of everything within that perimeter using your sensory organs.
- 4) In initial stages of practise, one should start with the two major senses - vision input & auditory input. In simple words, in starting one should try to only focus on seeing as much one can and hear as much one

can, in the immediate surroundings (perimeter of vicinity set as in previous step). With further practise, one should include in the inputs by other sensory organs (smell/taste/kinesthetics) as well.

5) During the time when one is practising this technique, in this state of mind – no thought can arise automatically/unconsciously/subconsciously and the subject for the time being in this state has absolute conscious control over his/her mind (thought process).

### C. Clinical Trials Results

This COGNISHEILD technique along with the Unimind Therapy were given to more than a hundred patients suffering from a variety of psychological problems namely anxiety, depression, OCD, PTSD, borderline personality disorder, bipolar disorder and mild schizophrenia/psychosis/delusions. In all cases, the subject reported significant improvement to complete healing starting from the point of introduction of this technique after receiving the Unimind Therapy. Multiple follow-ups were done for up to one month, and not a single subject experienced any symptoms of relapse after the first follow-up in which again the Unimind Therapy was given along with reiteration of the need/reasons to practise the COGNISHEILD technique.

### D. Discussion

- 1) COGNISHEILD technique can be practised 24x7 while doing any work. It does not interfere in the performance of any task and instead it improves the focus/concentration by increasing and broadening awareness/alertness in the present task which one is performing, and is also conducive for multi-tasking.
- 2) The thought-process of mind, similar to the respiration/breathing process, is semi-voluntary in nature. It occurs automatically in absence of recognition (conscious awareness/alertness) and when the attention is directed towards it, it comes under conscious control.
- 3) Each individual thought in mind is powered/fueled by attention – there comes ample of thoughts in mind but only those which we feed attention continue to exist – all those thoughts which are not given attention are automatically faded away within a second.
- 4) The mind in state of COGNISHEILD has complete attention focused outside towards the immediate surroundings/vicinity – depriving all thoughts within the brain of attention thus bringing the mind to the state of thoughtlessness.
- 5) As mentioned earlier above, the state of COGNISHEILD does not interfere with the ability to think consciously & purposefully – it simply brings the thought process (mind) under control by eliminating all automatic/unconscious/subconscious thoughts.
- 6) COGNISHEILD also improves the formation and recollection of memory (both long-term and short-term) as it allows more information to be processed in mind through increased awareness/alertness/attention and it also eliminates the background noise of thoughts, providing unprecedented level of mental clarity.
- 7) With practise, COGNISHEILD becomes the default state of mind. Initially while practising, distractions may arise frequently due to the past habit of continuous thinking, but distractions are reduced exponentially with practise.
- 8) COGNISHEILD can be considered as the ultimate form of meditation.

## Self-Questioning Therapy (SQT)

SQT can be used to effectively treat all types of psychological problems, by removing individual thoughts from mind as desired. In emergencies such as suicidal thoughts or otherwise, SQT can be used as an effective first-aid to provide quick relief. SQT has been tested clinically by the author with dozens of patients and it was proven highly effective in all cases.

## I. INTRODUCTION

It is well understood that the origin of all psychological problems are 'thoughts' - in the absence of thinking, no psychological discomfort can exist. For the same reason, author has researched earlier the COGNISHEILD technique which effectively treats all psychological problems spontaneously by enabling the individual to literally turn off their thoughts/thinking process, which has been proven highly effective when used clinically for treatment of all types of psychological problems. Everything is perfect with COGNISHEILD technique as an instant treatment for all psychological problems - yet some intellectuals find it to be a mechanism to escape from the specific problematic thoughts by switching-off the entire thinking process, without working it out. For these intellectuals and for those who, for any reason, do not want to turn-off their entire thinking process but want a quick resolution of their psychological problems, without any escape or suppression, the author has developed & introduced the Self-Questioning Therapy (SQT) in this paper.

The beauty of Self-Questioning Therapy (SQT) is in its capacity to remove individual thoughts, as specific by the individual. It is a form of self-therapy, an individual shall perform SQT on their own without any other person or external help, after being taught by a professional or from this paper. The ideology behind SQT is to question the negative thoughts in a systematic manner to remove them, for the simple fact that negative thoughts are never originated consciously and willingly, but rather they are a result of the 'negativity bias', wherein our mind/brain is innately and inherently programmed to give most attention to negative thoughts than positive thoughts. The definition of negative-positive should be interpreted to be in the context of survival and reproduction. SQT effectively changes the context of the thinking process to remove specific thoughts, as you will realize by studying this paper further. It would not be an exaggeration to state that questioning the origin/cause of any specific thought might be the only possible way to remove that individual specific thought from mind - all other methods including COGNISHEILD affects the complete thinking process irrespective of any specific individual thoughts.

SQT and COGNISHEILD technique can be combined together for a synergistic benefit, as explained later in this paper.

## II. SELF-QUESTIONING THERAPY (SQT)

As the name clearly suggests, SQT involves self-questioning, by the individual, to remove specific thoughts from their mind which are causing suffering or triggering disorders.

The author has developed two SQT models, oral SQT (SQT-O) and written SQT (SQT-W). The difference between both is that of convenience and effect - SQT-O is more convenient compared to SQT-W, whereas SQT-W is more effective compared to SQT-O. The former may be preferred because it is quicker, whereas the latter may be preferred because it has comparatively more prominent benefits. These two models of SQT are not absolute - many more models may be created for SQT, but for the purpose of introducing SQT from its developer itself, the author has developed these two models of SQT.

### *A. Both SQT-O and SQT-W Can Be Used Together For Synergistic Benefits.*

#### *1. Oral SQT model (SQT-O)*

The individual should all these question to self, answer each question in yes or no, chronologically :

- a. Will thinking about this help or benefit me in any way?
- c. Am I wasting my present time and opportunities in thinking about this unnecessary topic? b. Should I stop overthinking and do something constructive and purposeful right now which shall help me in my future?

The oral SQT model is preferred and recommended by the author to be used as the first-aid for all types of psychological problems.

#### *2. Written SQT model (SQT-W)*

- a. Take a blank paper to write on and a pen/pencil to write with. This should be performed in writing only because of the neuro-psychological benefits, discussed later in this paper.
- b. Firstly, the specific thought needs to be ascertained which is causing the problem/discomfort. For this purpose, write this first question on paper and then write answer to this question below that :
- c. Q1 : What is my exact problem? What is giving me suffering?
- d. After answering this question, we next need to identify our expectations from the situation - what we want the situation to be - our ideal solution to the problem. Write this second question then answer it :
- e. Q2 : What solution do I want? What is my expectation about how things should be?
- f. After answering the second question, we now need to question the validity of second answer - we do it by answering this third question :
- g. Q3 : Why do I want this solution? Why am I expecting things to be that way?
- h. After clarifying why we expect a particular solution, we answer a fundamental question - whether that solution is practically achievable or not. Write and answer this fourth question :
- i. Q4 : Is the solution within my control or outside my control? Can I fulfill my expectations on my own?
- j. After getting an answer to the fourth question, we try to find two things which we can practically do at the present to solve the problem. Write and answer this fifth question :
- k. Q5 : What are those two things which I can do right now at the present moment to solve my problem?
- l. After ascertaining what to do at present, we question the utility of further thinking by answering this sixth question :
- m. Q6 : Is there any use of thinking about this when I know what I should do right now? Should I stop overthinking and do those two things right now?
- n. After answering the sixth question, the person should read the complete paper (all 6 questions+answers), twice.
- o. After reading the complete paper twice, the person will stop thinking about that specific thought and do those two solution-oriented tasks which was ascertained in the fifth question.

### *B. Using Mirror to Maximize Impact of SQT*

A simple exercise with a mirror can be added to either SQT models to maximize the impact, as follows :

1. *SQT-O with mirror exercise (SQT-OM)*: In SQT-OM, the individual speaks out all the questions and answers each of them, in front of a mirror, with proper eye contact with self's reflection.
2. *SQT-W with mirror exercise (SQT-WM)*: In SQT-WM, the individual performs all steps as it is, as after writing the answer to the last/sixth question, the individual instead of simply reading that paper twice,

speaks out all questions and answers written in that paper to himself, in front of a mirror, with proper eye contact. SQT-OM and SQT-WM can also be used together for synergistic benefits. SQT-O can be combined with SQT-WM, and SQT-W can be combined with SQT-OM, as deemed necessary by the individual or professional therapist.

#### C. Combining COGNISHEILD technique with SQT :

In the 3rd Question of SQT-O and in the 6th question of SQT-W, in reference to the part of "stopping overthinking", the COGNISHEILD technique can be used to effectively stop thinking.

### III. DISCUSSION ON THE MECHANISM BEHIND THE FUNCTIONING OF SQT

Thoughts can be construed as the containers of existence. Speaking in philosophy : "without thoughts, the mind ceases to be" - I used to think for a long time until I read the works of Jiddu Krishnamurthi, and even a lot after that, I came across the statement "cogito, ergo sum" by Rene Descartes in 1637 - translating into the famous quote usually seen on social media networks and of intellectuals, "I think, therefore I am". But the real full quotation is much more intriguing. The complete sentence which Descartes wrote in his 1637 french book named "je pense, donc je suis" was as follows : "dubito, ergo sum, vel, quod idem est, cogito, ergo sum" ("I doubt, therefore I am, or the same in other words, I think, therefore I am"). For better clarity, I may technically define that all our experiences exist in our brain as memories of the past and in the present we only recall those memories as thoughts, including all our emotions, as feelings need an originating thought to be triggered, thought including memories of past experience as explained above. On a simpler note : the very concept of being alive or even existing - is merely a thought. "I am alive" is merely a thought, "I exist" is also merely a thought. If our thoughts or thinking process cease to be, then our individual existence too shall cease to be, including our mind. This is the state which the COGNISHIELD technique brings an individual on state where that individual can choose to exist or not, or in other non-scary words, to choose to think or not to think, not about any specific thought, but shutting down the complete thought process itself, without escaping from reality or from present. I will suggest all my peer psychologists to research within philosophy the nature of mind, and one should also refer to the Unimind Metamodel and the Unibrain Theory, the first complete unified model/framework of mind & brain which explains functioning in detail, to understand the substructure better behind all the techniques and therapies I have developed.

When I delved even deeper into the thought of "I doubt, therefore I am", I found self-control - as in the very notion of doubting something, psychologically separates you from that something, giving you enough distance to either shift your attention to something better or to replace or repair that something. Being a passionate neuropsychologist and medical psychologist, I felt the moral compulsion to build a psychological therapy based on this wonderful realization that doubts hold the power to even negate existence - and on the same premises, the existence of any singular thought can be negated using doubts, i.e. questions. Creating the two clinically working models of SQT mentioned above was the hardest task - but culminated by grace of God in this research paper.

Speaking in the neurological context, in accordance with the Unibrain Theory, a neuroscientific structural description of the brain : thoughts are never a concern, rather they are the different hormones and neurotransmitters triggered to be released by different thoughts that cause the problem. The brain is very logical, or in other words, just like a machine which works in a specific way - our fields of neuroscience and neuropsychology are all about finding how this machine works. Visualize this (these are scientifically



correct facts which every neuro-enthusiast knows) : each thought is a real tangible circuit in your brain. Yes, thoughts are not some intangible abstractions or imaginary information, but in reality, thoughts are a real tangible bunch of neurons in the brain firing electrochemical current to transmit information, whether for short-term or long-term. The only way to break that circuit of any individual thought, is to question that thought, because the very act of questioning will bring upon new neural connections into that already existing circuit - changing the structure of individual's perception or experiencing per se. Neurologically, questioning also shifts the attention from the original thought to a temporary thought of a question, technically speaking that the flow of electro-chemicals, or neurotransmitters, is shifted from being supplied to that brain circuit of the thought to be removed to the being redirected / supplied to new temporary thought whose sole function is to give a pure judgement about that circuit of thought on any criteria which we want, enabling us to obtain any specific result and guide the brain/mind to perform any specific function, which in SQT is to remove specific thoughts. Read the previous line twice, it is simple yet contains the complete essence of SQT on the deepest or most advanced levels. During my working experience with law enforcement agencies as a consultant psychologist, I have observed that the best negotiators have this ability to ask specific questions to obtain their desired answers. They all have different techniques for negotiations. The two models of SQT which I have introduced in this paper are a systematic way of asking yourself a few questions that will make you realize the specific things, which the developer has researched and found best, which will solve any psychological problem, no matter what the problem is. Sounds paradoxical until you try asking yourself the SQT questions and experience the results yourself.

#### IV. USE OF NLP

The two models of SQT given in this paper are developed using NLP for maximum benefits. NLP refers to Neuro-Linguistic Programming. NLP is the mechanism used in SQT to craft all mentioned questions in both models. The chronology of words and their selection is done keeping in mind a wide variety of NLP techniques. All the questions are framed for maximum impact using NLP. It is observed by the author in his clinical experience that without using NLP, the impact of SQT questions were comparatively lower than questions framed using NLP, which proved to be highly effective.

#### V. CLINICAL TRIALS OF SQT

The author has taught SQT to more than a hundred patients who were suffering from a wide variety of psychological problems, namely, overthinking, anxiety, depression, mood swings, psychosis, etc. and in all cases, instant relief was reported by all patients whenever they performed SQT, with no relapse in due course of time. SQT also performs extremely well in adjunct to the COGNISHEILD technique, giving a synergistic benefit, as tested clinically and reported by patients.

#### Section 4 :

UNETRA & ANSAR (examination systems), References No. 7 and 8 respectively.

UNETRA (Unified Neural Trait Range Assessment)

A comprehensive neuro-psychological personality classification and assessment system that can be used for a wide range of applications in various fields. This personality classification system consists of 27 dichotomies containing 54 neural traits and has a total of more than 134 million possible combinations,



making it an extremely powerful tool for understanding human behavior and personality. UNETRA can aid in identifying underlying neurological conditions and diagnosing mental disorders as well as physiological and lifestyle diseases, making it a valuable tool in clinical settings. It can also be used to improve personal growth and development, organizational/industrial psychology, relationship compatibility analysis, marketing, education, and a lot of other industries and dimensions. One of the most significant advantages of UNETRA is its convertibility to all other popular personality tests, including the Five Factor Model and MBTI. This versatility makes UNETRA an ideal tool for researchers and practitioners in various fields, such as psychology, human resources, and education. This research paper aims to provide an in-depth understanding of UNETRA, highlighting its unique features and exploring its diverse applications.

## I. INTRODUCTION TO UNETRA

UNETRA (Unified Neural Trait Range Assessment) is a new neuro-psychological assessment system that is grounded in the principles of neuroscience and psychology, taking inspiration from the triune brain theory, a widely accepted neuroscience model of brain evolution and function. The triune brain theory posits that the human brain is composed of three distinct regions that evolved over time, each with its own unique functions and behavioral traits. UNETRA is a tool that is designed to measure and classify these traits in individuals, providing insight into their personality, behavior & corresponding neural structures in the brain. The UNETRA personality classification system divides the 27 identified trait dichotomies (individual 54 traits) into three groups of nine. The 54 traits as 27 dichotomies as assessed by the UNETRA framework provide a detailed analysis of an individual's personality and neural functioning, from which a lot of information can be interpreted, including their states of psychological as well as physical health. These traits are carefully selected to assess the functioning of the three evolutionary divisions of the brain under the triune brain theory, namely, the Reptilian Brain, the Limbic Brain, and the Neocortex. The reptilian brain is the oldest and most primitive part of the brain, responsible for basic survival functions such as breathing, digestion, and fight or flight response. The limbic brain is responsible for emotions, social behavior, and memory formation, while the neocortex is responsible for higher cognitive functions such as language, reasoning, and abstract thinking. The UNETRA system is unique in that it maps each of the 27 trait dichotomies onto a spectrum, ranging from one extreme to another. This spectrum is then used to create a comprehensive personality profile that is unique to each individual, as classified under this system. The UNETRA system is unique in that it utilizes the concept of "neural traits" to classify personality. Neural traits refer to the neural correlates or patterns of brain activity associated with specific personality traits. Research in neuroscience has shown that different personality traits are associated with distinct patterns of brain activity, which can be observed using neuroimaging techniques such as fMRI or EEG. For example, individuals who score high on measures of extraversion tend to exhibit greater activation in brain regions associated with reward processing and social cognition, while those who score high on neuroticism tend to show greater activation in brain regions associated with emotional processing and regulation. By using neural traits, the UNETRA system is able to more accurately and objectively assess personality than traditional personality classifications. This allows for a more accurate and objective assessment of personality, which can be used in a variety of applications such as personnel selection, clinical diagnosis, and research. I believe the UNETRA system's use of neural traits represents a major advance in the field of psychology and neuroscience, providing a more accurate and objective assessment of personality that can be applied in a variety of contexts.

UNETRA is a comprehensive neuro-psychological assessment tool designed to provide a detailed understanding of an individual's personality. The system analyzes 27 dichotomies of traits, each of which has either of 9 possible states in the given spectrum, resulting in a total of 387,420,489 possible trait combinations. The term "neural trait range" in UNETRA refers to this vast array of possible trait combinations that are analyzed by the UNETRA classification system. The UNETRA system is designed to provide a more nuanced and comprehensive understanding of an individual's personality than traditional personality tests. By analyzing a broader range of dichotomies and trait states, UNETRA provides a more detailed and accurate assessment of an individual's personality, enabling more targeted interventions and therapies. The term "range" in the name UNETRA refers to the vast and diverse set of possible trait combinations that are analyzed by the system.

The UNETRA personality classification system has immense utility in the field of psychology. As the UNETRA system provides a comprehensive assessment of personality, it can be used to better understand individuals and their behaviors, as well as to develop more effective therapies and treatments. One area of psychology where the UNETRA system can be particularly useful is in the field of clinical psychology. By assessing an individual's UNETRA profile, a clinician can gain a better understanding of the individual's personality, thought patterns, and behaviors. This can help the clinician to develop a more effective treatment plan that is tailored to the individual's specific needs and tendencies. The UNETRA system can also be used in educational psychology. By assessing an individual's UNETRA profile, educators can gain insight into the individual's learning style and preferences. This can help educators to develop more effective teaching strategies and interventions that are tailored to the individual's specific needs. Furthermore, the UNETRA system can be used in forensic psychology. By assessing an individual's UNETRA profile, forensic psychologists can gain insight into the individual's personality and tendencies, which can be useful in investigations and court cases. In addition, the UNETRA system can be used in organizational psychology. By assessing an individual's UNETRA profile, organizational psychologists can gain insight into the individual's personality, work style, and preferences. This can help to develop more effective teams, better leadership, and more successful organizations.

One of the advantages of UNETRA is that it can be easily converted into other popular personality assessment systems, such as the Myers-Briggs Type Indicator (MBTI) and the Big Five Personality Traits. This is because the 27 neural trait dichotomies measured by UNETRA contain nearly all the dichotomies used in other systems, but are based on a more detailed and nuanced understanding of the underlying neural circuits in the brain. UNETRA is not meant to replace these models, but rather complement them by providing a more comprehensive and detailed analysis of an individual's personality traits.

By understanding an individual's UNETRA personality type, it is possible to assess their internal brain functionality and identify any potential neurological disorders or deficiencies. Because the traits measured by UNETRA correspond to actual neural circuits in the brain, they are of great interest to neuropsychologists and neuroscientists. By measuring these traits in individuals, researchers and medical professionals can gain insight into the functioning of different regions of the brain and how they affect the person's behavior and personality. For example, UNETRA can be used to assess the internal functioning of the brain in individuals with neurological disorders such as autism, schizophrenia, or traumatic brain injury. By comparing the scores of individuals with these disorders to those without, researchers can identify patterns of neural activity that may be associated with the disorder. In addition, UNETRA can be used in research studies to investigate the effects of different interventions on behavior and personality. For example, researchers could use UNETRA to measure the impact of a new drug or therapy on an

individual's behavior and personality traits over time. The dominant neural circuits of an individual reflect the underlying neural networks in their brain. Because each trait in UNETRA corresponds to a specific neural circuit in the brain, the assessment can be used to identify patterns of neural activity associated with different personality traits. This could have implications for understanding the underlying neural mechanisms associated with various mental health disorders and could inform new approaches to treatment.

The 27 identified neural traits under the UNETRA are divided into three groups of nine traits each, corresponding to the three sections of the triune brain, as follows :

1. *Reptilian Brain*

- a. Dominance / Submissiveness
- b. Aggression / Passivity
- c. Self-Preservation / Risk-taking
- d. Consistency / Adaptability
- e. Ritualistic / Innovative
- f. Coldness / Warmth
- g. Suspicion / Trust
- h. Tenacity / Flexibility
- i. Fear / Fearlessness

2. *Limbic Brain*

- a. Emotionality / Stoicism
- b. Sociability / Solitude
- c. Empathy / Self-centeredness
- d. Sensitivity / Insensitivity
- e. Affiliation / Independence
- f. Sentimentality / Objectivity
- g. Romanticism / Pragmatism
- h. Excitability / Calmness
- i. Trusting / Distrusting

3. *Neocortex*

- a. Intelligence / Ignorance
- b. Rationality / Irrationality
- c. Creativity / Conformity
- d. Curiosity / Apathy
- e. Analytic / Intuitive
- f. Logical / Emotional
- g. Skeptical / Gullible
- h. Objective / Subjective
- i. Openness / Closed-mindedness

## II. THE PSYCHOLOGICAL BASIS OF UNETRA

Let's understand the psychology of each of these neural traits in detail to have a better understanding:

### A. Reptilian Brain

1. *Dominance/Submissiveness* - Dominance refers to the tendency to assert oneself over others, while submissiveness refers to the tendency to yield to others. People with a dominant personality tend to be assertive, confident, and in control, while those with a submissive personality tend to be more accommodating, agreeable, and deferential.
2. *Aggression/Passivity* - Aggression refers to the tendency to be forceful and assertive in one's actions and words, while passivity refers to the tendency to be meek or timid. People with an aggressive personality tend to be assertive, competitive, and prone to conflict, while those with a passive personality tend to avoid confrontation, seek harmony, and prioritize peace.
3. *Self-Preservation/Risk-taking* - Self-preservation refers to the tendency to prioritize safety and security, while risk-taking refers to the tendency to seek out new experiences and take chances. People with a self-preservation personality tend to be cautious, careful, and risk-averse, while those with a risk-taking personality tend to be adventurous, daring, and willing to take calculated risks.
4. *Consistency/Adaptability* - Consistency refers to the tendency to maintain the status quo and resist change, while adaptability refers to the tendency to be flexible and adaptable to new situations. People with a consistent personality tend to be reliable, dependable, and predictable, while those with an adaptable personality tend to be open to new experiences, creative, and able to handle change.
5. *Ritualistic/Innovative* - Ritualistic refers to the tendency to adhere to established routines and traditions, while innovative refers to the tendency to think creatively and develop new ideas. People with a ritualistic personality tend to be traditional, conventional, and conservative, while those with an innovative personality tend to be imaginative, creative, and open to new possibilities.
6. *Coldness/Warmth* - Coldness refers to the tendency to be emotionally distant and detached, while warmth refers to the tendency to be emotionally expressive and connected. People with a cold personality tend to be reserved, aloof, and unemotional, while those with a warm personality tend to be affectionate, empathetic, and nurturing.
7. *Suspicion/Trust* - Suspicion refers to the tendency to be distrustful and skeptical of others, while trust refers to the tendency to be accepting and believing of others. People with a suspicious personality tend to be cautious, guarded, and untrusting, while those with a trusting personality tend to be open, accepting, and willing to give others the benefit of the doubt.
8. *Tenacity/Flexibility* - Tenacity refers to the tendency to be persistent and determined in one's pursuits, while flexibility refers to the tendency to be adaptable and open to changing course. People with a tenacious personality tend to be persistent, driven, and unwilling to give up, while those with a flexible personality tend to be adaptable, resourceful, and able to change direction when needed.
9. *Fear/Fearlessness* - Fear refers to the tendency to be cautious and avoidant of perceived danger, while fearlessness refers to the tendency to be bold and unafraid in the face of danger. People with a fearful personality tend to be anxious, cautious, and avoidant of risk, while those with a fearless personality tend to be brave, confident, and willing to take risks.

### B. Limbic Brain

1. *Emotionality/Stoicism* - Emotionality refers to the tendency to be sensitive and expressive of one's emotions, while stoicism refers to the tendency to be reserved and unemotional. People with an emotional personality tend to be expressive, sensitive, and empathetic, while those with a stoic personality tend to be reserved, controlled, and unemotional.
2. *Sociability/Solitude* - Sociability refers to the tendency to enjoy social interaction and seek out the company of others, while solitude refers to the tendency to prefer being alone and avoiding social interaction. People with a sociable personality tend to be outgoing, friendly, and gregarious, while those with a solitary personality tend to be introverted, independent, and self-sufficient.
3. *Empathy/Self-centeredness* - Empathy refers to the ability to understand and share the feelings of others, while self-centeredness refers to the tendency to be focused on one's own needs and desires. People with an empathetic personality tend to be compassionate, caring, and understanding of others, while those with a self-centered personality tend to be focused on their own needs and desires, often at the expense of others.
4. *Sensitivity/Insensitivity* - Sensitivity refers to the tendency to be responsive to one's environment and emotions, while insensitivity refers to the tendency to be indifferent or unresponsive. People with a sensitive personality tend to be emotionally responsive, perceptive, and empathetic, while those with an insensitive personality tend to be emotionally detached, unresponsive, and unaware of others' emotions.
5. *Affiliation/Independence* - Affiliation refers to the tendency to seek out social connections and group membership, while independence refers to the tendency to prefer individual autonomy and self-sufficiency. People with an affiliative personality tend to be social, cooperative, and team-oriented, while those with an independent personality tend to be self-reliant, self-motivated, and able to work independently.
6. *Sentimentality/Objectivity* - Sentimentality refers to the tendency to be emotional and nostalgic about the past, while objectivity refers to the tendency to be rational and focused on the present or future. People with a sentimental personality tend to be nostalgic, emotional, and attached to the past, while those with an objective personality tend to be rational, pragmatic, and focused on the present or future.
7. *Romanticism/Pragmatism* - Romanticism refers to the tendency to be idealistic and focused on emotional and aesthetic qualities, while pragmatism refers to the tendency to be practical and focused on practical considerations. People with a romantic personality tend to be idealistic, imaginative, and focused on emotional and aesthetic qualities, while those with a pragmatic personality tend to be practical, realistic, and focused on practical considerations.
8. *Excitability/Calmness* - Excitability refers to the tendency to be easily aroused and responsive to stimuli, while calmness refers to the tendency to be relaxed and unresponsive. People with an excitable personality tend to be reactive, responsive, and easily stimulated, while those with a calm personality tend to be relaxed, unreactive, and unstimulated.
9. *Trusting/Distrusting* - Trusting refers to the tendency to believe in and rely on others, while distrusting refers to the tendency to be skeptical and suspicious of others. People with a trusting personality tend to be open, accepting, and willing to believe in the goodness of others, while those with a distrusting personality tend to be skeptical, suspicious, and guarded in their relationships with others.



### C. Neocortex:

1. *Intelligence/Ignorance* - Intelligence refers to the ability to learn, reason, and solve problems, while ignorance refers to the lack of knowledge or understanding. People with an intelligent personality tend to be knowledgeable, curious, and able to think critically and creatively, while those with an ignorant personality tend to be uninformed, disinterested, and lacking in critical thinking skills.
2. *Rationality/Irrationality* - Rationality refers to the tendency to think logically and make decisions based on reason, while irrationality refers to the tendency to think emotionally or impulsively. People with a rational personality tend to be logical, analytical, and able to make decisions based on reason, while those with an irrational personality tend to be emotional, impulsive, and prone to making decisions based on their feelings.
3. *Creativity/Conformity* - Creativity refers to the ability to think outside the box and come up with new ideas, while conformity refers to the tendency to follow established norms and conventions. People with a creative personality tend to be imaginative, innovative, and able to come up with new and original ideas, while those with a conformist personality tend to be conventional, traditional, and focused on following established norms and conventions.
4. *Curiosity/Apathy* - Curiosity refers to the tendency to be interested in and seek out new knowledge and experiences, while apathy refers to the lack of interest or concern. People with a curious personality tend to be inquisitive, exploratory, and eager to learn, while those with an apathetic personality tend to be indifferent, disinterested, and lacking in motivation.
5. *Analytic/Intuitive* - Analytic refers to the tendency to think logically and break down complex problems into smaller parts, while intuitive refers to the ability to understand complex problems or situations without conscious reasoning. People with an analytic personality tend to be logical, systematic, and able to break down complex problems into smaller parts, while those with an intuitive personality tend to be perceptive, insightful, and able to understand complex problems without conscious reasoning.
6. *Logical/Emotional* - Logical refers to the tendency to think rationally and make decisions based on reason, while emotional refers to the tendency to make decisions based on feelings and emotions. People with a logical personality tend to be analytical, rational, and able to make decisions based on reason, while those with an emotional personality tend to be sensitive, empathetic, and able to make decisions based on their feelings.
7. *Skeptical/Gullible* - Skeptical refers to the tendency to question and evaluate claims or evidence before accepting them as true, while gullible refers to the tendency to believe claims or evidence without questioning or evaluating them. People with a skeptical personality tend to be critical, analytical, and able to evaluate claims or evidence before accepting them as true, while those with a gullible personality tend to be trusting, naïve, and easily convinced by claims or evidence.
8. *Objective/Subjective* - Objective refers to the tendency to be impartial and unbiased in one's thinking and decision-making, while subjective refers to the tendency to be influenced by personal biases or emotions. People with an objective personality tend to be impartial, rational, and able to make decisions based on facts and evidence, while those with a subjective personality tend to be influenced by personal biases, emotions, and subjective experiences.
9. *Openness/Closed-mindedness* - Openness refers to the tendency to be open to new ideas, experiences, and perspectives, while closed-mindedness refers to the tendency to be resistant to new ideas and perspectives. People with an open personality tend to be open-minded, flexible, and willing to consider

new ideas and perspectives, while those with a closed-minded personality tend to be rigid, inflexible, and resistant to new ideas and perspectives.

### III. THE NEUROLOGICAL BASIS OF UNETRA

The dominant brain regions that influence personality traits are an important aspect of understanding human behavior and psychology.

By identifying the specific neural circuits in the brain that are responsible for certain traits, we can gain a deeper understanding of how these traits manifest in individuals and how they can be modified or improved through various interventions. UNETRA's classification system provides a comprehensive framework for identifying these traits and their corresponding neural circuits, making it a valuable tool in the field of psychology as well as neuroscience.

With this information, therapists and researchers can develop more effective treatments for various psychological disorders and improve the overall well-being of individuals.

Here are the details of the dominant brain regions that influence the UNETRA personality traits, including the explanation of neurology behind them:

#### A. Reptilian Brain

1. *Dominance/Submissiveness*: The amygdala and hypothalamus regulate the body's stress response and emotional processing. Individuals with a dominant personality trait may have a larger amygdala, while those with submissive traits may have a smaller one. The neurological correlates to dominance include increased activity in the anterior cingulate cortex and prefrontal cortex, which are involved in decision-making and self-control. High levels of dopamine are associated with dominance, while low levels are linked to submissiveness. Conversely, high levels of serotonin are associated with submissiveness, while low levels are linked to dominance.
2. *Aggression/Passivity*: The amygdala is also responsible for the fight or flight response, which can trigger aggressive behavior in response to a perceived threat. However, the prefrontal cortex can inhibit the amygdala's response, leading to passive behavior. The neurological correlates to aggression include increased activity in the amygdala and decreased activity in the prefrontal cortex. High levels of serotonin and norepinephrine are associated with aggression, while low levels of these neurotransmitters are linked to passivity. High levels of dopamine are linked to passivity, while low levels are associated with aggression.
3. *Self-Preservation/Risk-taking*: The hypothalamus and basal ganglia control our natural instincts, including self-preservation and risk-taking behavior. The neurological correlates to self-preservation include increased activity in the hypothalamus and decreased activity in the ventromedial prefrontal cortex, while risk-taking behavior is associated with decreased activity in the amygdala and increased activity in the ventromedial prefrontal cortex. High levels of norepinephrine are associated with self-preservation, while low levels are linked to risk-taking. High levels of dopamine are linked to risk-taking, while low levels are associated with self-preservation.
4. *Consistency/Adaptability*: The striatum and basal ganglia regulate habitual behavior, leading to consistency in actions. In contrast, the prefrontal cortex is responsible for executive functions, such as decision-making and planning, leading to adaptability in behavior. The neurological correlates to consistency include increased activity in the striatum and decreased activity in the prefrontal cortex, while adaptability is associated with increased activity in the prefrontal cortex. High levels of serotonin

are associated with consistency, while low levels are linked to adaptability. High levels of dopamine are linked to adaptability, while low levels are associated with consistency.

5. *Ritualistic/Innovative*: The basal ganglia control habit formation, leading to ritualistic behavior. In contrast, the prefrontal cortex is responsible for creativity and innovation, leading to innovative behavior. The neurological correlates to ritualistic behavior include increased activity in the basal ganglia and decreased activity in the prefrontal cortex, while innovative behavior is associated with increased activity in the prefrontal cortex. High levels of dopamine are linked to innovation, while low levels are associated with ritualistic behavior. High levels of serotonin are linked to ritualistic behavior, while low levels are associated with innovation.
6. *Coldness/Warmth*: The amygdala and insula are responsible for emotional processing, leading to cold or warm behavior. The neurological correlates to cold behavior include decreased activity in the amygdala and insula, while warm behavior is associated with increased activity in these regions. High levels of serotonin are associated with coldness, while low levels are linked to warmth. High levels of dopamine are linked to warmth, while low levels are associated with coldness.
7. *Suspicion/Trust*: The amygdala and prefrontal cortex control emotional processing and decision-making, leading to suspicious or trusting behavior. The neurological correlates to suspicion include increased activity in the amygdala and decreased activity in the prefrontal cortex, while trust is associated with increased activity in the prefrontal cortex. High levels of serotonin are associated with suspicion, while high levels of oxytocin are linked to trust. Conversely, low levels of serotonin and oxytocin are linked to trust.
8. *Tenacity/Flexibility*: The basal ganglia and prefrontal cortex regulate habit formation and decision-making, leading to tenacity or flexibility in behavior. The neurological correlates to tenacity include increased activity in the basal ganglia and decreased activity in the prefrontal cortex, while flexibility is associated with increased activity in the prefrontal cortex. High levels of norepinephrine are associated with tenacity, while high levels of dopamine are linked to flexibility. Low levels of these neurotransmitters are associated with the opposite traits.
9. *Fear/Fearlessness*: The amygdala and prefrontal cortex control emotional processing and the fear response, leading to fearful or fearless behavior. The neurological correlates to fear include increased activity in the amygdala and decreased activity in the prefrontal cortex, while fearlessness is associated with decreased activity in the amygdala and increased activity in the prefrontal cortex. High levels of norepinephrine are associated with fear, while low levels are linked to fearlessness. Conversely, high levels of dopamine are linked to fearlessness, while low levels are associated with fear.

### B. Limbic Brain

1. *Emotionality/Stoicism*: The amygdala, which is located in the medial temporal lobe, is involved in the processing and regulation of emotions such as fear, anger, and pleasure. Individuals who exhibit high levels of emotionality may have a hyperactive amygdala, while those who exhibit stoicism may have an underactive amygdala. High levels of dopamine are associated with emotionality, while high levels of serotonin are linked to stoicism. Low levels of these neurotransmitters are associated with the opposite traits.
2. *Sociability/Solitude*: The prefrontal cortex, specifically the dorsolateral prefrontal cortex, is involved in social behavior and decision-making. People who are sociable may have a larger and more active dorsolateral prefrontal cortex, while those who prefer solitude may have a smaller and less active

dorsolateral prefrontal cortex. High levels of oxytocin are associated with sociability, while high levels of serotonin are linked to solitude. Low levels of these neurotransmitters are associated with the opposite traits.

3. *Empathy/Self-centeredness*: The insula, which is located in the cerebral cortex, is involved in empathy and self-awareness. People who are empathetic may have a more active insula, while those who are self-centered may have a less active insula. High levels of oxytocin are associated with empathy, while high levels of serotonin are linked to self-centeredness. Low levels of these neurotransmitters are associated with the opposite traits.
4. *Sensitivity/Insensitivity*: The anterior cingulate cortex, which is located in the medial prefrontal cortex, is involved in emotional regulation and pain processing. Individuals who exhibit high levels of sensitivity may have a more active anterior cingulate cortex, while those who exhibit insensitivity may have a less active anterior cingulate cortex. High levels of serotonin are associated with sensitivity, while high levels of dopamine are linked to insensitivity. Low levels of these neurotransmitters are associated with the opposite traits.
5. *Affiliation/Independence*: The ventromedial prefrontal cortex, which is located in the medial prefrontal cortex, is involved in social behavior and decision-making. People who prefer affiliation may have a larger and more active ventromedial prefrontal cortex, while those who prefer independence may have a smaller and less active ventromedial prefrontal cortex. High levels of oxytocin are associated with affiliation, while high levels of dopamine are linked to independence. Low levels of these neurotransmitters are associated with the opposite traits.
6. *Sentimentality/Objectivity*: The medial prefrontal cortex, specifically the ventromedial prefrontal cortex, is involved in emotional regulation and decision-making. Individuals who exhibit high levels of sentimentality may have a more active medial prefrontal cortex, while those who exhibit objectivity may have a less active medial prefrontal cortex. High levels of serotonin are associated with sentimentality, while high levels of dopamine are linked to objectivity. Low levels of these neurotransmitters are associated with the opposite traits.
7. *Romanticism/Pragmatism*: The ventromedial prefrontal cortex is also involved in decision-making and social behavior. People who exhibit high levels of romanticism may have a more active ventromedial prefrontal cortex, while those who exhibit pragmatism may have a less active ventromedial prefrontal cortex. High levels of dopamine are associated with romanticism, while high levels of serotonin are linked to pragmatism. Low levels of these neurotransmitters are associated with the opposite traits.
8. *Excitability/Calmness*: The amygdala and prefrontal cortex are both involved in the regulation of emotions. Individuals who exhibit high levels of excitability may have a hyperactive amygdala and a less active prefrontal cortex, while those who exhibit calmness may have an underactive amygdala and a more active prefrontal cortex. High levels of norepinephrine are associated with excitability, while high levels of serotonin are linked to calmness. Low levels of these neurotransmitters are associated with the opposite traits.
9. *Trusting/Distrusting*: The amygdala and prefrontal cortex are both involved in social behavior and decision-making. Individuals who exhibit high levels of trust may have a more active prefrontal cortex and a less active amygdala, while those who exhibit distrust may have a less active prefrontal cortex and a more active amygdala. High levels of oxytocin are associated with trusting, while high levels of

serotonin are linked to distrust. Low levels of these neurotransmitters are associated with the opposite traits.

### C. Neocortex

1. *Intelligence/Ignorance*: The prefrontal cortex, specifically the dorsolateral prefrontal cortex, is involved in higher-order cognitive processes such as working memory, attention, and decision-making. Individuals with a more active dorsolateral prefrontal cortex may exhibit higher levels of intelligence, while those with a less active dorsolateral prefrontal cortex may exhibit lower levels of intelligence. There is no clear association between neurotransmitters and intelligence. However, some studies suggest that high levels of dopamine and norepinephrine may be linked to increased cognitive performance and creativity.
2. *Rationality/Irrationality*: The anterior cingulate cortex (ACC) is involved in monitoring and regulating cognitive control processes such as decision-making and conflict resolution. Individuals with a more active ACC may exhibit higher levels of rationality, while those with a less active ACC may exhibit higher levels of irrationality. High levels of serotonin are associated with rationality, while low levels are linked to irrationality.
3. *Creativity/Conformity*: The dorsolateral prefrontal cortex and the anterior cingulate cortex play important roles in creativity, with the dorsolateral prefrontal cortex being involved in divergent thinking and the anterior cingulate cortex being involved in the generation of new ideas. Individuals with a more active dorsolateral prefrontal cortex and anterior cingulate cortex may exhibit higher levels of creativity, while those with a less active dorsolateral prefrontal cortex and anterior cingulate cortex may exhibit higher levels of conformity. High levels of dopamine and norepinephrine are associated with creativity, while high levels of serotonin are linked to conformity.
4. *Curiosity/Apathy*: The prefrontal cortex, specifically the ventromedial prefrontal cortex, is involved in the regulation of curiosity and motivation. Individuals with a more active ventromedial prefrontal cortex may exhibit higher levels of curiosity, while those with a less active ventromedial prefrontal cortex may exhibit higher levels of apathy. High levels of dopamine are associated with curiosity, while low levels are linked to apathy.
5. *Analytic/Intuitive*: The left hemisphere of the brain, specifically the left prefrontal cortex, is often associated with analytical thinking, while the right hemisphere of the brain, specifically the right prefrontal cortex, is often associated with intuitive thinking. Individuals with a more active left prefrontal cortex may exhibit higher levels of analytic thinking, while those with a more active right prefrontal cortex may exhibit higher levels of intuitive thinking. High levels of serotonin are associated with analytic thinking, while high levels of dopamine are linked to intuitive thinking.
6. *Logical/Emotional*: The prefrontal cortex, specifically the ventromedial prefrontal cortex, plays an important role in regulating emotional responses and decision-making. Individuals with a more active ventromedial prefrontal cortex may exhibit higher levels of logical thinking, while those with a less active ventromedial prefrontal cortex may exhibit higher levels of emotional thinking. High levels of serotonin are associated with logical thinking, while high levels of dopamine are linked to emotional thinking.
7. *Skeptical/Gullible*: The prefrontal cortex, specifically the dorsolateral prefrontal cortex, is involved in critical thinking and decision-making. Individuals with a more active dorsolateral prefrontal cortex may exhibit higher levels of skepticism, while those with a less active dorsolateral prefrontal cortex



may exhibit higher levels of gullibility. High levels of serotonin are associated with skepticism, while low levels are linked to gullibility.

8. *Objective/Subjective*: The prefrontal cortex, specifically the ventromedial prefrontal cortex, is involved in the regulation of subjective experiences and decision-making. Individuals with a more active ventromedial prefrontal cortex may exhibit higher levels of objectivity, while those with a less active ventromedial prefrontal cortex may exhibit higher levels of subjectivity. There is no clear association between neurotransmitters and objectivity/subjectivity.
9. *Openness/Closed-mindedness*: The prefrontal cortex, specifically the anterior cingulate cortex, plays a role in regulating cognitive flexibility and openness to new experiences. Individuals with a more active anterior cingulate cortex may exhibit higher levels of openness, while those with a less active anterior cingulate cortex may exhibit higher levels of closed-mindedness. Openness/Closed-mindedness: High levels of dopamine and norepinephrine are associated with openness, while high levels of serotonin are linked to closed-mindedness.

#### IV. THE CLASSIFICATION SYSTEM OF UNETRA :

The UNETRA classification system provides a comprehensive framework for analyzing and understanding human behavior. It divides the 27 identified neural traits dichotomies into three groups of nine, corresponding to the three main sections of the brain: the reptilian brain, the limbic brain, and the neocortex. Each of the 27 neural traits dichotomies is assigned a unique code, and a spectrum is associated with each code, representing the range of expressions for that trait. This system can be used to gain insight into one's own personality and to better understand the personalities of those around us. Each code within the UNETRA system corresponds to a specific personality trait dichotomy, such as Dominance/Submissiveness (DS) or Autonomy/Dependence (AD). Within each trait code, there are several ranges of internal spectrums that represent different expressions of that trait. These spectrums can be thought of as dimensions that range from low to high levels of the trait. Each code has an internal spectrum of 9 variations that ranges from the one end of the dichotomy to another.

##### A. How to write UNETRA Classification Profile in 3 Easy Steps

1. Identify the relevant neural trait code: Each code within the UNETRA system corresponds to a specific neural trait. For example, the Dominance/Submissiveness (DS) code relates to an individual's level of assertiveness and willingness to take charge in social situations.
2. Determine the specific expression of the trait: Within each trait code, there are several internal spectrums that represent different expressions of that trait. These spectrums can be thought of as dimensions that range from low to high levels of the trait. For example, the DS code has an internal spectrum that ranges from Dominant to Submissive. Within the Dominant spectrum, there are further divisions such as Controlling, Competitive, and Assertive.
3. Combine the trait code and expression: Once you have identified the relevant trait code and expression, you can combine them to create a specific description of that trait for an individual. This description should reflect where the individual falls on the internal spectrum for that trait.

For example, an individual who is highly controlling within the Dominance/Submissiveness code would be described as DS: Dominant-Controlling.

Similarly, an individual who is highly assertive and displays a hostile attitude would be described as AP: Assertive-Hostile. (refer to the charter given below)

In a similar way, all 27 dichotomies are to be mentioned in a complete UNETRA profile.

B. Here is the complete charter of UNETRA classification codes with proper explanations of 9 spectrum variations for each neural trait:

### *Reptilian Brain*

#### 1. *DS: Dominance/Submissiveness*

Dominant:

Assertive: Confident and proactive, willing to take charge and make decisions.

Competitive: Enjoys competing with others and striving to be the best.

Controlling: Wants to be in charge and may have difficulty delegating tasks.

Balanced:

Collaborative: Values teamwork and collaboration, willing to compromise and listen to others.

Assertive: Able to stand up for themselves and communicate their needs without being overly aggressive.

Diplomatic: Skilled at resolving conflicts and finding mutually beneficial solutions.

Submissive:

Passive: Tends to go along with others' ideas and may struggle to assert themselves.

Dependent: Relies heavily on others for guidance and direction.

Indecisive: Struggles to make decisions and may defer to others.

#### 2. *AP: Aggression/Passivity*

Aggressive:

Hostile: Quick to anger and may lash out when feeling threatened or challenged.

Combative: Tends to argue and fight with others, may have a confrontational attitude.

Intimidating: Uses power and aggression to dominate others and get their way.

Balanced:

Assertive: Able to assert themselves and stand up for their rights without resorting to aggression.

Confident: Self-assured and able to project strength without needing to dominate others.

Direct: Communicates clearly and honestly, without being aggressive or passive.

Passive:

Avoidant: Tends to avoid conflict and may withdraw from social situations.

Passive-aggressive: Expresses anger indirectly or subtly, rather than confronting issues directly.

Submissive: May defer to others' opinions or needs, without expressing their own.

#### 3. *SP: Self-Preservation/Risk-taking*

Self-Preservation:

Cautious: Values safety and avoids risky situations.

Conservative: Prefers familiar experiences and may be resistant to change.

Methodical: Takes a step-by-step approach to tasks and avoids impulsive decisions.

Balanced:

Pragmatic: Weighs risks and benefits before taking action, but is willing to take calculated risks.

Adaptable: Able to adjust to new situations and take risks when necessary.

Discerning: Evaluates risks and potential outcomes before making decisions.

Risk-taking:

Daring: Enjoys taking risks and may seek out novel experiences.

Impulsive: Acts quickly and without much forethought.

Thrill-seeking: Enjoys excitement and adrenaline rushes.

#### 4. CA: Consistency/Adaptability

Consistency:

Traditional: Values established ways of doing things and may be resistant to change.

Predictable: Prefers routine and may become anxious when routines are disrupted.

Reliable: Consistent in their behavior and expectations of others.

Balanced:

Flexible: Able to adjust to new situations without losing sight of their goals.

Open-minded: Willing to consider new ideas and perspectives, while still maintaining some consistency.

Pragmatic: Uses past experiences to inform decision-making, while remaining open to new experiences.

Adaptability:

Innovative: Creative and enjoys exploring new ideas and possibilities.

Resilient: Able to bounce back from setbacks and adapt to changing circumstances.

Agile: Able to adjust to new situations quickly and effectively.

#### 5. RI: Ritualistic/Innovative

Ritualistic:

Traditional: Values established ways of doing things and may be resistant to change.

Superstitious: Believes in luck, fate, and other supernatural forces.

Rigid: Prefers strict adherence to rules and regulations.

Balanced:

Respectful: Values tradition and may incorporate some traditional practices into their life, but is also open to new ideas and approaches.

Practical: Willing to try new things that have practical benefits, but not necessarily interested in completely changing their lifestyle.

Open-minded: Willing to consider new ideas and approaches, while still maintaining some attachment to tradition.

Innovative:

Creative: Enjoys exploring new ideas and possibilities, and may be highly imaginative.

Futuristic: Looks toward the future and is interested in developing new technologies or approaches.

Nonconformist: Prefers to do things their own way, and may be resistant to authority or tradition.

#### 6. CW: Coldness/Warmth

Coldness:

Unemotional: Has difficulty expressing emotions, and may come across as aloof or detached.

Distant: Tends to keep others at arm's length and may be hard to connect with emotionally.

Unsympathetic: Has difficulty understanding or empathizing with others' emotions or experiences.

Balanced:

Reserved: May not express emotions as openly as others, but still has the capacity for warmth and connection with others.

Calm: Able to remain composed and level-headed, even in stressful situations.

Pragmatic: Prioritizes practical considerations over emotional ones, but still values human connection.

Warmth:

Affectionate: Enjoys physical touch and emotional closeness with others.

Compassionate: Empathetic and caring, and able to connect emotionally with others.

Expressive: Openly expresses emotions and feelings, and may enjoy sharing them with others.

#### 7. ST: Suspicion/Trust

Suspicion:

Skeptical: Tends to doubt others' intentions and may be wary of new people or situations.

Paranoid: Has an exaggerated sense of mistrust and may be overly suspicious of others.

Cynical: Believes that people are generally selfish or motivated by self-interest.

Balanced:

Realistic: Recognizes that people may have both good and bad intentions, and takes precautions to protect themselves without being overly suspicious.

Discerning: Able to evaluate others' behavior and intentions before placing trust in them.

Trustworthy: Able to build trust with others and be trusted in return.

Trust:

Open: Willing to share personal information and experiences with others.

Optimistic: Believes that people are generally good and trustworthy.

Naive: May be too trusting and may overlook warning signs or red flags.

#### 8. TF: Tenacity/Flexibility

Tenacity:

Determined: Has a strong sense of perseverance and is willing to keep working toward a goal, even in the face of obstacles.

Stubborn: Refuses to give up on a particular goal or idea, even when it may be impractical or unrealistic.

Resilient: Able to bounce back from setbacks and challenges, and continue pursuing their goals.

Balanced:

Pragmatic: Willing to adjust their goals or plans when necessary, without losing sight of their ultimate objective.

Adaptable: Able to adjust to changing circumstances without losing focus on their goals.

Persistent: Continues to work toward a goal, but is willing to adjust their approach or methods as needed.

Flexibility:

Easygoing: Able to go with the flow and adapt to changing circumstances without getting too stressed or upset.

Adaptive: Willing and able to adjust their goals or plans when necessary, and may even see changes as opportunities.

Creative: Able to come up with new ideas or solutions when faced with unexpected challenges or obstacles.

#### 9. FF: Fear/Fearlessness

Fear:

Anxious: Tends to worry or feel anxious about potential risks or threats.

Avoidant: Tends to avoid situations or activities that may be perceived as risky or scary.

Timid: May lack confidence or be hesitant to take risks, particularly in unfamiliar or challenging situations.

Balanced:

**Cautious:** Takes reasonable precautions to avoid unnecessary risks or dangers, without letting fear hold them back.

**Thoughtful:** Weighs potential risks and benefits before making decisions, but is willing to take calculated risks.

**Courageous:** Willing to face challenges or risks, even when it may be uncomfortable or difficult.

**Fearlessness:**

**Bold:** Enjoys taking risks and may even seek out opportunities for adventure or excitement.

**Confident:** Has a strong sense of self-assurance and is willing to take on challenges or risks with a sense of calm and determination.

**Reckless:** May act without considering the potential consequences of their actions, or may be overly confident in their ability to handle risks.

### *C. Limbic Brain*

#### *1. ES: Emotionality/Stoicism*

**Emotionality:**

**Emotional:** Experiences and expresses emotions strongly and frequently.

**Sensitive:** Reacts strongly to others' emotions and may be easily moved by emotional stimuli.

**Expressive:** Demonstrates their emotions through facial expressions, tone of voice, and body language.

**Balanced:**

**Reserved:** Demonstrates a moderate level of emotionality and may not express emotions as openly as others.

**Calm:** Remains composed in emotionally charged situations and is able to regulate their own emotions.

**Rational:** Makes decisions based on reason rather than emotion.

**Stoicism:**

**Unemotional:** Rarely expresses emotions and may appear cold or detached to others.

**Unreactive:** Remains calm and composed in even the most emotionally charged situations.

**Dispassionate:** Approaches situations with a logical, analytical mindset rather than an emotional one.

#### *2. SS: Sociability/Solitude*

**Sociability:**

**Outgoing:** Enjoys being around others and may actively seek out social situations.

**Gregarious:** Thrives in social situations and may have a large circle of friends or acquaintances.

**Extroverted:** Draws energy from being around others and may find solitude draining.

**Balanced:**

**Amicable:** Enjoys socializing but also values alone time.

**Cordial:** Gets along well with others but doesn't necessarily seek out social situations.

**Introverted:** Prefers solitude to socializing, but can still enjoy being around others in moderation.

**Solitude:**

**Reserved:** Enjoys solitude and may be content spending long periods of time alone.

**Reclusive:** Avoids social situations whenever possible and may have very few close relationships.

**Introspective:** Finds meaning and fulfillment in personal reflection and self-exploration.

#### *3. ES: Empathy/Self-centeredness*

**Empathy:**

**Empathetic:** Able to understand and relate to others' emotions and perspectives.

**Compassionate:** Feels a strong desire to help and support others.



Warm-hearted: Demonstrates kindness and concern for others' well-being.

Balanced:

Considerate: Takes others' feelings and perspectives into account, but also values their own needs and wants.

Fair-minded: Tries to make decisions that are equitable and just for everyone involved.

Pragmatic: Approaches situations with a practical, objective mindset rather than an emotional one.

Self-centeredness:

Self-absorbed: Focused primarily on their own needs and desires.

Narcissistic: Has an inflated sense of self-importance and may lack empathy for others.

Selfish: Willing to put their own needs and wants ahead of others' even if it causes harm or distress.

#### 4. SI: Sensitivity/Insensitivity

Sensitivity:

Sensitive: Feels emotions strongly and may be easily moved by others' emotions or experiences.

Attentive: Pays close attention to others' needs and feelings.

Gentle: Demonstrates care and concern for others' well-being.

Balanced:

Resilient: Able to bounce back from emotional setbacks and handle difficult situations with grace.

Pragmatic: Approaches situations with a practical, objective mindset rather than an emotional one.

Grounded: Remains steady and composed in emotionally charged situations.

Insensitivity:

Unfeeling: Rarely feels strong emotions and may appear cold or detached to others.

Indifferent: Doesn't pay much attention to others feelings or experiences and may come across as aloof or uncaring.

Callous: Lacks empathy for others and may disregard their feelings or well-being.

#### 5. AI: Affiliation/Independence

Affiliation:

Connected: Values close relationships and may prioritize social connections over personal freedom or autonomy.

Collaborative: Enjoys working with others and may seek out opportunities to collaborate or cooperate.

Interdependent: Relies on others for support and assistance, and values being part of a community or group.

Balanced:

Autonomous: Values personal freedom and independence but also recognizes the importance of social connections.

Self-sufficient: Capable of meeting their own needs and may prefer to work independently rather than in a group.

Cooperative: Willing to work with others but also capable of working alone when necessary.

Independence:

Independent: Values personal freedom and autonomy over social connections or group dynamics.

Self-reliant: Prefers to rely on themselves rather than seeking assistance or support from others.

Individualistic: Prioritizes personal needs and desires over social expectations or group norms.

#### 6. SO: Sentimentality/Objectivity

Sentimentality:

Emotional: Experiences and expresses emotions strongly and frequently.

Romantic: Values emotional connections and may prioritize relationships or experiences that are emotionally charged.

Sensitive: Reacts strongly to others' emotions and may be easily moved by emotional stimuli.

Balanced:

Pragmatic: Approaches situations with a practical, objective mindset rather than an emotional one.

Grounded: Remains steady and composed in emotionally charged situations.

Rational: Makes decisions based on reason rather than emotion.

Objectivity:

Objective: Approaches situations with a logical, analytical mindset rather than an emotional one.

Detached: Appears to be emotionally uninvolved or uninterested in situations or experiences.

Impersonal: Prioritizes facts and data over personal experiences or emotional connections.

#### 7. RP: Romanticism/Pragmatism

Romanticism:

Idealistic: Values ideals, beliefs, and dreams over practical considerations or tangible results.

Imaginative: Enjoys exploring creative or imaginative ideas and possibilities.

Emotional: Experiences and expresses emotions strongly and frequently.

Balanced:

Realistic: Approaches situations with a practical, objective mindset rather than an emotional one.

Grounded: Remains steady and composed in emotionally charged situations.

Rational: Makes decisions based on reason rather than emotion.

Pragmatism:

Practical: Prioritizes practical considerations and tangible results over ideals or beliefs.

Analytical: Approaches situations with a logical, analytical mindset rather than an emotional one.

Objective: Prioritizes facts and data over personal experiences or emotional connections.

#### 8. EC: Excitability/Calmness

Excitability:

Excitable: Easily excited or aroused by new or stimulating experiences.

Enthusiastic: Demonstrates passion and excitement for things they find interesting or enjoyable.

Energetic: Demonstrates a high level of energy and may be restless or easily distracted.

Balanced:

Serene: Remains calm and composed in even the most emotionally charged situations.

Steady: Demonstrates a consistent level of energy and emotional expression.

Grounded: Approaches situations with a practical, objective mindset rather than an emotional one.

Calmness:

Calm: Remains composed in emotionally charged situations and is able to regulate their own emotions.

Unflappable: Demonstrates a consistent level of calmness and emotional regulation even in high-pressure or stressful situations.

Reserved: Remains emotionally neutral and may not display strong emotional expressions.

#### 9. TD: Trusting/Distrusting

Trusting:

Trustful: Generally assumes the best of others and is willing to trust them until given a reason not to.

Open: Values transparency and honesty in others and may share personal information or experiences freely.

Forgiving: Is able to let go of past grievances and move forward in relationships.

Balanced:

Cautious: Approaches new relationships or situations with a healthy level of skepticism and observation.

Neutral: Is neither inherently trusting nor distrusting and evaluates each situation individually.

Balanced: Maintains a healthy balance of trust and skepticism in relationships and situations.

Distrusting:

Suspicious: Is quick to assume the worst of others and may be reluctant to trust them.

Guarded: Is protective of personal information and may be slow to open up to others.

Vengeful: May hold grudges or seek revenge against those who have wronged them.

*D. Neocortex*

### 1. *II: Intelligence/Ignorance*

Intelligent:

Knowledgeable: Possesses a broad range of information and is able to apply it in various contexts.

Analytical: Is able to reason and solve complex problems effectively.

Perceptive: Has a keen awareness and understanding of their environment and others around them.

Balanced:

Average: Has a reasonable level of knowledge and problem-solving skills.

Practical: Focuses on what is necessary for their work or personal life.

Adaptable: Can learn new skills and information quickly.

Ignorant:

Uninformed: Lacks knowledge and understanding in certain areas.

Naive: May be unaware of important social or political issues.

Closed-minded: Refuses to consider new ideas or perspectives.

### 2. *RR: Rationality/Irrationality*

Rational:

Logical: Makes decisions based on reason and evidence.

Objective: Considers facts and evidence before making decisions.

Analytical: Breaks down complex problems into smaller, more manageable parts.

Balanced:

Pragmatic: Weighs pros and cons and makes decisions based on practicality.

Flexible: Can balance logic and emotion when making decisions.

Considerate: Considers the feelings of others in decision-making.

Irrational:

Impulsive: Makes decisions based on emotion without considering the consequences.

Superstitious: Believes in unproven or illogical concepts or ideas.

Dogmatic: Holds onto beliefs without considering evidence or new information.

### 3. *CC: Creativity/Conformity*

Creative:

Innovative: Generates original ideas or solutions to problems.

Artistic: Has a talent for artistic expression.

Resourceful: Can find creative solutions to problems.

Balanced:

Practical: Balances creativity with practicality.

Adaptable: Can be creative in different situations or contexts.

Conventional: Adheres to traditional methods or approaches when appropriate.

Conformist:

Unimaginative: Lacks creativity or originality in ideas or solutions.

Risk-averse: Avoids taking risks or trying new things.

Inflexible: Resists change or new ideas.

#### 4. CA: Curiosity/Apathy

Curious:

Inquisitive: Seeks out new knowledge or experiences.

Enthusiastic: Excited to learn or try new things.

Open-minded: Willing to consider new ideas or perspectives.

Balanced:

Practical: Balances curiosity with practicality.

Cautious: Approaches new experiences or information with a healthy level of skepticism.

Focused: Has a specific area of interest or expertise.

Apathetic:

Uninterested: Lacks interest or enthusiasm for new knowledge or experiences.

Indifferent: Doesn't care about new ideas or perspectives.

Closed-minded: Refuses to consider new information or perspectives.

#### 5. AI: Analytic/Intuitive

Analytic:

Logical: Makes decisions based on objective reasoning and data.

Systematic: Organizes information and processes in a structured, methodical way.

Detail-oriented: Pays close attention to details and accuracy.

Balanced:

Pragmatic: Balances analytical thinking with practicality and real-world constraints.

Critical: Questions assumptions and examines evidence before coming to conclusions.

Efficient: Uses analysis to optimize processes or workflows.

Intuitive:

Holistic: Sees the big picture and understands complex systems or relationships.

Innovative: Generates new ideas or solutions based on intuition or insight.

Insightful: Able to quickly grasp the essence of a situation or problem.

#### 6. LE: Logical/Emotional

Logical:

Rational: Makes decisions based on reason and evidence.

Objective: Considers facts and evidence before making decisions.

Analytical: Breaks down complex problems into smaller, more manageable parts.

Balanced:

Practical: Balances logic with emotions.

Compassionate: Considers the feelings of others in decision-making.

Adaptable: Can switch between using logic and emotions when making decisions.

Emotional:

Impulsive: Makes decisions based on emotions without considering the consequences.

Sensitive: Can be easily influenced by emotions.

Irrational: Makes decisions without considering evidence or reason.

7. *SG: Skeptical/Gullible*

Skeptical:

Critical: Analyzes evidence and claims before accepting them.

Investigative: Researches and seeks out evidence before accepting claims.

Pragmatic: Weighs pros and cons before accepting claims.

Balanced:

Open-minded: Considers new information or evidence with a healthy level of skepticism.

Trusting: Can balance skepticism with trust.

Cautious: Approaches new information or claims with a healthy level of skepticism.

Gullible:

Naive: Easily accepts claims without questioning them.

Credulous: Believes in unproven or illogical concepts or ideas.

Uncritical: Accepts information without analyzing or questioning it.

8. *OS: Objective/Subjective*

Objective:

Impartial: Considers evidence and facts without bias.

Analytical: Breaks down complex problems into smaller, more manageable parts.

Evidence-based: Makes decisions based on evidence and facts.

Balanced:

Open-minded: Considers subjective opinions and perspectives when making decisions.

Empathetic: Considers the feelings of others in decision-making.

Realistic: Balances objectivity with practicality.

Subjective:

Biased: Considers personal opinions or beliefs over evidence or facts.

Emotional: Makes decisions based on emotions or personal feelings.

Opinionated: Holds strong beliefs without considering evidence or facts.

9. *OC: Openness/Closed-mindedness*

Open:

Curious: Seeks out new experiences or knowledge.

Creative: Generates new ideas or solutions.

Tolerant: Accepts and considers different perspectives and ideas.

Balanced:

Practical: Balances openness with practicality.

Discerning: Considers the value of new experiences or knowledge before pursuing them.

Critical: Analyzes new ideas or perspectives before accepting them.

Closed-minded:

Unwilling: Resists new experiences or knowledge.

Judgmental: Criticizes or dismisses different perspectives or ideas.

Dogmatic: Holds onto beliefs without considering evidence or new information.



## V. CONVERTING UNETRA INTO THE FIVE-FACTOR MODEL AND MBTI :

The Big Five model, also known as the Five-Factor Model (FFM), is a widely used personality classification system that has gained significant popularity among psychologists and researchers. It is based on the idea that human personality can be described using five broad dimensions: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. Each of these dimensions consists of several facets or sub-traits that further define an individual's personality. While the Big Five model has gained popularity due to its simplicity and practicality, it does have limitations. Firstly, it only measures broad traits, which may not accurately capture the complexities of an individual's personality. Secondly, it relies heavily on self-report, which can be biased and may not reflect an individual's true personality. This is where UNETRA, a personality classification system based on neural traits, has an advantage. By using neuroscientific methods, UNETRA provides a more detailed and accurate representation of an individual's personality traits.

### A. Here's a Detailed Mapping charter of the UNETRA onto the Big Five Model

#### 1. Extraversion

High Dominance/Submissiveness is associated with low levels of Extraversion.

High Aggression/Passivity is not strongly associated with either high or low levels of Extraversion.

High Sociability, High Warmth, and High Risk-taking are associated with high levels of Extraversion.

High Coldness and High Suspicion are associated with low levels of Extraversion.

#### 2. Neuroticism

High Fear/Fearlessness is associated with low levels of Neuroticism.

High Emotionality and High Sensitivity are associated with high levels of Neuroticism.

High Self-centeredness is associated with low levels of Agreeableness and high levels of Neuroticism.

High Empathy is associated with high levels of Agreeableness and low levels of Neuroticism.

High Insensitivity and High Objectivity are associated with low levels of Neuroticism.

#### 3. Conscientiousness

High Consistency is associated with high levels of Conscientiousness.

High Tenacity is associated with high levels of Conscientiousness, low levels of Extraversion, and low levels of Agreeableness.

High Pragmatism is associated with high levels of Conscientiousness and low levels of Openness.

High Rationality is associated with high levels of Conscientiousness and low levels of Neuroticism.

High Adaptability is associated with low levels of Conscientiousness and low levels of Openness.

High Romanticism is associated with low levels of Conscientiousness and high levels of Openness.

High Irrationality is associated with low levels of Conscientiousness and low levels of Openness.

#### 4. Openness

High Ritualistic and High Innovative are associated with high levels of Openness.

High Creativity is associated with high levels of Openness and low levels of Conscientiousness.

High Curiosity and High Intelligence are associated with high levels of Openness and low levels of Neuroticism.

High Conformity is associated with low levels of Openness and high levels of Conscientiousness.

High Apathy is associated with low levels of Openness and low levels of Neuroticism.

High Ignorance is associated with low levels of Openness and low levels of Conscientiousness.

#### 5. Agreeableness

High Empathy, High Affiliation, High Sentimentality, and High Trust are associated with high levels of Agreeableness.

High Independence, High Skepticism, High Closed-mindedness, and High Gullibility are associated with low levels of Agreeableness.

High Self-centeredness is associated with low levels of Agreeableness and high levels of Neuroticism.

High Sensitivity is associated with low levels of Agreeableness and high levels of Neuroticism.

High Objectivity is associated with low levels of Agreeableness and low levels of Neuroticism.

UNETRA (Unified Neural Trait Range Assessment) is a comprehensive framework for understanding human personality that encompasses a wide range of traits and characteristics. While the Myers-Briggs Type Indicator (MBTI) is a well-known personality assessment tool that is widely used, it only captures a small portion of the personality traits that are included in UNETRA. However, it is possible to convert UNETRA traits into MBTI types by following a simple process. Each MBTI dichotomy corresponds to a specific UNETRA dichotomy, and by identifying the expression of each of those UNETRA traits, you can determine their MBTI type. This can be a useful way to gain insight into an individual's personality and preferences, and can help you to better understand how they approach the world around them. By recognizing that UNETRA provides a more nuanced and comprehensive understanding of human personality, we can go beyond the limitations of the MBTI and gain a deeper insight into the complex nature of human behavior. MBTI can be considered a small part of a much larger personality framework - UNETRA.

*B. Here is the charter on how to convert UNETRA into MBTI*

*1. Extraversion (E) / Introversion (I)*

UNETRA Corresponding Dichotomy: Dominance/Submissiveness

Traits of Dominance: assertive, proactive, outgoing, assertive, and confident

Traits of Submissiveness: passive, dependent, shy, quiet, and reserved

To convert to MBTI, individuals who score high on Dominance are likely to be classified as Extraverts, while those who score high on Submissiveness are likely to be classified as Introverts.

*2. Sensing (S) / Intuition (N)*

UNETRA Corresponding Dichotomy: Aggression/Passivity

Traits of Aggression: assertive, confrontational, risk-taker, and direct

Traits of Passivity: avoidant, indirect, cautious, and reserved

To convert to MBTI, individuals who score high on Aggression are likely to be classified as Intuitive, while those who score high on Passivity are likely to be classified as Sensing.

*3. Thinking (T) / Feeling (F)*

UNETRA Corresponding Dichotomy: Self-Preservation/Risk-taking

Traits of Self-Preservation: practical, cautious, conservative, and careful

Traits of Risk-taking: daring, adventurous, innovative, and spontaneous

To convert to MBTI, individuals who score high on Self-Preservation are likely to be classified as Thinking, while those who score high on Risk-taking are likely to be classified as Feeling.

*4. Judging (J) / Perceiving (P)*

UNETRA Corresponding Dichotomy: Consistency/Adaptability

Traits of Consistency: organized, structured, efficient, and decisive

Traits of Adaptability: flexible, spontaneous, creative, and open-minded

To convert to MBTI, individuals who score high on Consistency are likely to be classified as Judging, while those who score high on Adaptability are likely to be classified as Perceiving.

UNETRA is a comprehensive personality model that provides a nuanced understanding of human behavior and psychology. With 27 dichotomies and a total of 134,217,728 possible combinations, UNETRA offers a vast range of personality types that can accurately capture the unique nuances and complexities of individual personality traits. The greatness of UNETRA lies in its ability to provide a more detailed and nuanced picture of personality than other personality models such as MBTI. While MBTI is a popular personality model that is widely used in the business world and other settings, it only has four dichotomies and 16 possible combinations, which can limit its ability to capture the intricacies of human personality. While there are over 134 million possible combinations of neural traits in UNETRA. It's important to note that not all of these combinations will be equally likely or valid, as some combinations may be contradictory or illogical. However, this large number of possibilities highlights the depth and complexity of UNETRA, and how it can capture a wide range of human traits and behaviors. UNETRA's 27 dichotomies cover a vast range of personality traits, including both cognitive and emotional aspects. With 134,217,728 possible combinations, UNETRA provides a framework that can capture almost all possible personality testing classifications known to humanity.

## VI. USING UNETRA IN DIAGNOSING PSYCHOLOGICAL DISORDERS :

The Unified Neural Trait Range Assessment (UNETRA) is a unique tool in the field of mental health that allows mental health professionals to evaluate a patient's psychological profile comprehensively. UNETRA identifies specific traits and expressions associated with various mental health disorders, enabling clinicians to make accurate diagnoses and create personalized treatment plans, making it a powerful tool in evaluating mental health disorders. Here are a few common psychological disorders and their correlated UNETRA trait expressions:

### A. Depression

UNETRA Trait Expression: Low Emotionality, High Stoicism, Low Sociability, High Solitude, Low Empathy, High Self-Centeredness, Low Sensitivity, High Insensitivity, Low Affiliation, High Independence, Low Sentimentality, High Objectivity, Low Romanticism, High Pragmatism, Low Excitability, High Calmness, Low Trusting, High Distrusting, Low Creativity, High Conformity, Low Curiosity, High Apathy, Low Analytic, High Intuitive, Low Logical, High Emotional, Low Skeptical, High Gullible, Low Openness, High Closed-mindedness

### B. Anxiety Disorders

UNETRA Trait Expression: High Fear, Low Fearlessness, Low Dominance, High Submissiveness, High Suspicion, Low Trust, Low Tenacity, High Flexibility, Low Excitability, High Calmness, Low Creativity, High Conformity, Low Curiosity, High Apathy, Low Analytic, High Intuitive, Low Logical, High Emotional, Low Skeptical, High Gullible, Low Openness, High Closed-mindedness

### C. Obsessive-Compulsive Disorder

UNETRA Trait Expression: High Consistency, Low Adaptability, High Ritualistic, Low Innovative, Low Emotionality, High Stoicism, Low Sociability, High Solitude, Low Empathy, High Self-Centeredness, Low Sensitivity, High Insensitivity, Low Affiliation, High Independence, Low Sentimentality, High Objectivity, Low Romanticism, High Pragmatism, Low Excitability, High Calmness, Low Trusting, High Distrusting, Low Creativity, High Conformity, Low Curiosity, High Apathy, Low Analytic, High Intuitive, Low Logical, High Emotional, Low Skeptical, High Gullible, Low Openness, High Closed-mindedness

#### *D. Bipolar Disorder*

UNETRA Trait Expression: High Emotionality, Low Stoicism, High Sociability, Low Solitude, High Empathy, Low Self-Centeredness, High Sensitivity, Low Insensitivity, High Affiliation, Low Independence, High Sentimentality, Low Objectivity, High Romanticism, Low Pragmatism, High Excitability, Low Calmness, High Trusting, Low Distrusting, High Creativity, Low Conformity, High Curiosity, Low Apathy, High Analytic, Low Intuitive, High Logical, Low Emotional, High Skeptical, Low Gullible, High Openness, Low Closed-mindedness

#### *E. Schizophrenia*

UNETRA Trait Expression: High Fear, Low Fearlessness, High Dominance, Low Submissiveness, High Suspicion, Low Trust, High Tenacity, Low Flexibility, High Creativity, Low Conformity, High Curiosity, Low Apathy, High Analytic, Low Intuitive, High Logical, Low Emotional, High Skeptical, Low Gullible, High Openness, Low Closed-mindedness.

#### *F. Substance Use Disorder*

UNETRA Trait Expression: High Excitability, Low Calmness, Low Trusting, High Distrusting, Low Creativity, High Conformity, Low Curiosity, High Apathy, Low Analytic, High Intuitive, Low Logical, High Emotional, Low Skeptical, High Gullible, Low Openness, High Closed-mindedness, High Sensation-seeking

#### *G. Eating Disorders*

UNETRA Trait Expression: Low Emotionality, High Stoicism, Low Sociability, High Solitude, Low Empathy, High Self-Centeredness, Low Sensitivity, High Insensitivity, Low Affiliation, High Independence, Low Sentimentality, High Objectivity, Low Romanticism, High Pragmatism, Low Excitability, High Calmness, Low Trusting, High Distrusting, Low Creativity, High Conformity, Low Curiosity, High Apathy, Low Analytic, High Intuitive, Low Logical, High Emotional, Low Skeptical, High Gullible, Low Openness, High Closed-mindedness

#### *H. Post-Traumatic Stress Disorder*

UNETRA Trait Expression: High Fear, Low Fearlessness, Low Dominance, High Submissiveness, High Suspicion, Low Trust, High Tenacity, Low Flexibility, High Creativity, Low Conformity, High Curiosity, Low Apathy, High Analytic, Low Intuitive, High Logical, Low Emotional, High Skeptical, Low Gullible, High Openness, Low Closed-mindedness, High Sensitivity

#### *I. Attention Deficit Hyperactivity Disorder (ADHD)*

UNETRA Trait Expression: High Excitability, Low Calmness, Low Trusting, High Distrusting, High Creativity, Low Conformity, High Curiosity, Low Apathy, High Analytic, Low Intuitive, High Logical, Low Emotional, High Skeptical, Low Gullible, High Openness, Low Closed-mindedness, High Sensation-seeking

#### *J. Borderline Personality Disorder*

UNETRA Trait Expression: High Emotionality, Low Stoicism, Low Sociability, High Solitude, Low Empathy, High Self-Centeredness, High Sensitivity, Low Insensitivity, Low Affiliation, High Independence, High Sentimentality, Low Objectivity, High Romanticism, Low Pragmatism, High Excitability, Low Calmness, Low Trusting, High Distrusting, High Creativity, Low Conformity, High Curiosity, Low Apathy, Low Analytic, High Intuitive, Low Logical, High Emotional, Low Skeptical, High Gullible, High Openness, Low Closed-mindedness

#### *K. Narcissistic Personality Disorder*

UNETRA Trait Expression: High Emotionality, Low Stoicism, Low Sociability, High Solitude, Low Empathy, High Self-Centeredness, Low Sensitivity, High Insensitivity, Low Affiliation, High Independence, Low Sentimentality, High Objectivity, Low Romanticism, High Pragmatism, Low Excitability, High Calmness, Low Trusting, High Distrusting, Low Creativity, High Conformity, Low Curiosity, High Apathy, Low Analytic, High Intuitive, Low Logical, High Emotional, Low Skeptical, High Gullible, Low Openness, High Closed-mindedness

## VII. USING UNETRA IN DIAGNOSING PHYSICAL HEALTH & LIFESTYLE DISORDERS

Here is a brief introduction to how each dichotomy can affect physical health and lifestyle:

### A. Reptilian Brain

Dominance/Submissiveness: Dominant people may be at higher risk for heart disease due to high stress levels and a lack of self-care. Submissive people may be at risk for depression and anxiety.

Aggression/Passivity: Aggressive people may be at higher risk for heart disease and high blood pressure. Passive people may be at higher risk for depression and anxiety.

Self-Preservation/Risk-Taking: People who are high in risk-taking may be more likely to engage in dangerous behaviors that could lead to injury or illness. Those who are high in self-preservation may be more cautious but may also struggle with anxiety.

Consistency/Adaptability: People who are highly consistent may struggle with change and experience high levels of stress. Those who are highly adaptable may be more prone to taking risks and may struggle with anxiety.

Ritualistic/Innovative: People who are highly ritualistic may be more resistant to change and may struggle with anxiety. Those who are highly innovative may be more likely to take risks and may struggle with impulsivity.

Coldness/Warmth: People who are cold may struggle with forming close relationships and may have higher levels of stress. Those who are warm may be more susceptible to manipulation and may struggle with setting boundaries.

Suspicion/Trust: People who are highly suspicious may struggle with forming close relationships and may have higher levels of stress. Those who are highly trusting may be more susceptible to manipulation and may struggle with setting boundaries.

Tenacity/Flexibility: People who are highly tenacious may struggle with adapting to change and may have higher levels of stress. Those who are highly flexible may struggle with setting boundaries and may experience anxiety.

Fear/Fearlessness: People who are highly fearful may struggle with taking risks and may have higher levels of anxiety. Those who are highly fearless may be more likely to engage in dangerous behaviors that could lead to injury or illness.

### B. Limbic Brain:

Emotionality / Stoicism - Individuals who exhibit high emotionality are prone to stress-related physical ailments such as hypertension, cardiac disease, migraines, and gastrointestinal disorders. Those with stoic personalities, on the other hand, may suppress emotions, leading to increased risk of autoimmune disorders and chronic pain.

Sociability / Solitude - People with high sociability may be at higher risk of infections and sexually transmitted diseases due to their increased interaction with others. Individuals who prefer solitude may have a higher risk of depression and anxiety disorders.



Empathy / Self-centeredness - Empathetic individuals may experience physical and emotional fatigue, burnout, and depression due to their heightened sensitivity to others' emotions. People with self-centered tendencies may be at higher risk of substance abuse and addiction.

Sensitivity / Insensitivity - Individuals with high sensitivity may be more susceptible to allergies, skin disorders, and chronic pain conditions. Those with insensitivity may be at higher risk of developing antisocial behavior and substance abuse disorders.

Affiliation / Independence - People with high affiliation needs may be at higher risk of developing codependency issues and may experience more stress-related physical and mental health problems. Those with high independence needs may be at a higher risk of depression and anxiety disorders.

Sentimentality / Objectivity - Highly sentimental individuals may experience more stress-related physical ailments such as cardiac disease and hypertension. Those with high objectivity may be at higher risk of emotional detachment and difficulty forming relationships.

Romanticism / Pragmatism - Individuals with high romanticism may be at higher risk of depression, anxiety, and substance abuse disorders. People with high pragmatism may be at risk of emotional detachment and difficulty forming relationships.

Excitability / Calmness - Highly excitable individuals may be at higher risk of hypertension, cardiac disease, and other stress-related physical ailments. People with high calmness may have difficulty managing stress and may be at higher risk of anxiety and depression disorders.

Trusting / Distrusting - People with high trust may be at higher risk of being taken advantage of, but those with high distrust may be at higher risk of anxiety disorders and paranoid delusions.

### C. *Neocortex*

Intelligence: High intelligence may lead to better mental health outcomes and reduced risk of dementia. Low intelligence may be associated with poor decision-making and academic difficulties.

Rationality: High rationality may lead to better decision-making and problem-solving abilities. Low rationality may lead to impulsivity and poor judgment.

Creativity: High creativity may lead to increased mental flexibility and innovation. Low creativity may be associated with a lack of imagination and adaptability.

Curiosity: High curiosity may lead to a better understanding of the world and increased motivation to learn. Low curiosity may lead to a lack of interest in new experiences and decreased mental stimulation.

Analytic: High analytic abilities may lead to better problem-solving skills and the ability to understand complex information. Low analytic abilities may lead to difficulties in understanding complex concepts and decision-making.

Logical: High logical abilities may lead to better decision-making and reasoning skills. Low logical abilities may lead to confusion and difficulty with decision-making.

Skeptical: High levels of skepticism may lead to critical thinking and the ability to evaluate information. Low levels of skepticism may lead to gullibility and susceptibility to misinformation.

Objective: High objectivity may lead to unbiased decision-making and an ability to consider multiple perspectives. Low objectivity may lead to closed-mindedness and difficulty in considering alternative viewpoints.

Openness: High openness may lead to a willingness to try new things and increased creativity. Low openness may lead to resistance to change and decreased mental flexibility.

### VIII. OTHER FEW POSSIBLE USES OF UNETRA

UNETRA is a powerful tool that can be used in a variety of ways to understand and assess human behavior. Here is a list of a few uses of UNETRA:

1. *Employee Assessment*: UNETRA can be used to assess employees in a company to better understand their strengths and weaknesses. This information can be used to improve performance, increase job satisfaction, and reduce turnover rates.
2. *Career Guidance*: UNETRA can provide insights into a person's natural abilities, personality traits, and work preferences, which can be useful in career guidance and counseling. By understanding their unique strengths and challenges, individuals can make informed decisions about their career paths.
3. *Counseling and Therapy*: UNETRA can help mental health professionals to identify underlying personality traits and potential psychological disorders, allowing them to develop more effective treatment plans.
4. *Relationship Counseling*: UNETRA can be used to identify potential compatibility issues between couples or friends, allowing them to work on areas of conflict and improve communication.
5. *Education*: UNETRA can provide insights into a student's learning style and natural abilities, allowing educators to tailor teaching methods and curriculum to meet their individual needs.
6. *Criminal Profiling*: UNETRA can be used by law enforcement to understand the psychological makeup of criminals and develop profiles to aid in their capture.
7. *Marketing and Advertising*: UNETRA can be used to identify target audiences for marketing and advertising campaigns based on personality traits and preferences.
8. *Sports Psychology*: UNETRA can be used to understand the natural abilities and personality traits of athletes, allowing coaches to develop training plans that maximize their potential.
9. *Self-Improvement*: UNETRA can be used to gain insight into one's own personality traits, natural abilities, and areas for improvement. This information can be used to set goals and develop strategies for personal growth.
10. *Healthcare*: UNETRA can be used to identify risk factors for certain diseases and conditions based on personality traits and lifestyle choices, allowing for early intervention and preventative care.
11. *Parenting*: UNETRA can be used to gain insight into a child's natural abilities and personality traits, allowing parents to tailor their parenting style to meet their needs.
12. *Team Building*: UNETRA can be used to identify individual strengths and weaknesses within a team, allowing for more effective collaboration and team building.

These are just a few examples of the many ways UNETRA can be used to gain insight into human behavior and improve outcomes in various fields. As we have seen, the possibilities of UNETRA are limitless, and it has the potential to change the way we approach problems and make decisions. If you are interested in exploring the potential of UNETRA, we invite you to contact us for collaboration. We believe that by combining our expertise in UNETRA with your unique perspective and skills, we can create innovative solutions that can improve the lives of people around the world. So let's collaborate and unlock the full potential of UNETRA together.

### IX. SELF-REPORTING QUESTIONNAIRE

As the developer of UNETRA, I have created an ideal self-reporting questionnaire that allows individuals to assess their own UNETRA profile. This questionnaire has been designed to accurately ascertain the

expressions of each of the 27 neural traits in UNETRA. However, at this time, the questionnaire is being kept private. I am also proactively working on developing a guide for clinicians on how to observe and ascertain UNETRA profile of patients.

I understand that many individuals may be interested in utilizing this questionnaire to gain insights into their own psychological profiles. However, as UNETRA is a complex and advanced system, it is important that the questionnaire is used appropriately and within the context of the overall UNETRA framework. Therefore, I am currently only sharing the questionnaire with qualified mental health professionals and researchers who have a strong understanding of UNETRA and its applications.

If you are interested in collaborating with me and gaining access to the UNETRA self-reporting questionnaire or the clinical evaluation guide, please contact me through the details provided below. I will be happy to discuss the potential for collaboration and provide further information on the questionnaire and clinical evaluation guide and their usage.

### ANSAR Examination

A Neurological Examination Methods to Ascertain Subconscious and Unconscious Reactions of Mind/Brain for any Specific Stimulus or Situation

## I. INTRODUCTION & IMPORTANCE

It is imperative for doctors, especially psychologists & psychiatrists, to be aware of such methods to identify how the subconscious and unconscious parts of a patient's mind/brain are reacting to any specific stimulus or situation. Medical literature present all across the globe lack such knowledge. Such subconscious and unconscious reactions can be literally read by observing the visible involuntary neurological changes/reactions occurring in the body, namely through the well-known sympathetic & parasympathetic responses of the autonomous nervous system. Thus, this research paper introduces a few methods discovered by the author, presented as a toolkit of neurological examination methods for doctors, especially psychologists & psychiatrists, to ascertain the reactions of subconscious & unconscious parts of mind/brain in response to any specific stimulus or situation by analyzing changes in the state of autonomous nervous system using various mentioned methods. 'Stimulus' hereby refers to not only physical stimulus or sensory stimulus but also refers to psychological stimulus such as words, memories, thoughts, and so on. 'Situation' refers to any specific environment or its different modifications thereof. This toolkit is of high importance for all clinicians as patients often lie - the conscious communication by patient is often mutilated by a wide number of cognitive biases, making it untrustworthy for ascertaining the truth. In contrast, the autonomous nervous system in body communicates visibly the reactions of subconscious & unconscious parts of mind/brain, which are seldom in conscious control, making it suitable to analyze those visible reactions of the autonomous nervous system to ascertain the true reactions of mind/brain, untainted by conscious ego or cognitive biases.

## II. CORE THEORY

As the name suggests, ANSAR (Autonomous Nervous System Activity Response) examination ascertains the reactions of subconscious & unconscious parts of mind/brain in response to any specific stimulus or situation by analyzing the visible involuntary neurological changes/reactions occurring in the body - manifesting through the autonomous nervous system.

To understand better, let me give you a macro view of the neuro-psychological functioning of autonomous nervous system :

1. Autonomous Nervous System (ANS) is controlled subconsciously & unconsciously by the brain, naming the hypothalamus region to be specific.
2. The hypothalamus triggers sympathetic response in ANS whenever the brain/mind perceives elements of danger or threat in overall environment
3. The hypothalamus triggers parasympathetic response in ANS whenever the brain/mind perceives elements of familiarity or safety overall environment.
4. These perceptions by hypothalamus can either by real (sensory perceptions) or virtual (memory remembrance or imagination) as defined in 'stimulus' above.

Therefore, while examining the Activity Response of the Autonomous Nervous System (i.e. ANSAR), we can perceive either of the following possibilities in reaction to any given stimulus or situation :

1. When any neurological marker of Sympathetic response in ANS is visible, the patient is perceiving a threat or danger.
2. When any neurological marker of Parasympathetic response in ANS is visible, the patient is perceiving safety or familiarity.
3. No change at all in the activity Response of ANS - indifference in perception.

An important thing to note is that in ANSAR examination, similar to all other neurological examinations, we analyze only deviations, i.e. only reactions/changes in ANS in response to specific stimulus or situation are to be observed.

Apathy has to be taken into consideration - that the stimulus or situation, i.e. the environment either in part or whole, does not always produce a response or reaction, there are times when the attention of observer is focused on internal thought processes like imagination or daydreaming and thus misses to perceive from senses the stimulus or situation at all.

Having said that, for all practical & clinical purposes, ANSAR examination works best.

### III. CLASSIFICATION SYSTEM IN ANSAR EXAMINATION

The innervations of the ANS are spread widely throughout the body, thus the Activity Response of ANS can be examined by observing many aspects of neuromuscular exhibitions. These different neuromuscular exhibitions of ANS can be interpreted in different aspects, enabling the clinician to ascertain a variety of contexts in which the sympathetic or parasympathetic response is occurring. Many such methods of ANSAR examinations are given in this toolkit. Sympathetic response ascertained through one method might imply a different meaning than sympathetic response ascertained through another method, and same for parasympathetic response - in other words, different methods of ANSAR examination give different meanings to sympathetic & parasympathetic responses.

Speaking strictly as a neuroscientist in purely technical terms, different subconscious & unconscious parts and processes of mind/brain triggers the ANS in different ways through the hypothalamus.

Common across all the methods of ANSAR examination given hereafter, here are the 5 broad classifications of the

Activity Response of ANS, as follows:

1. Significantly Sympathetic Response (denoted using S++)
2. Mildly Sympathetic Response (denoted using S+)

3. Neutral/no response (denoted using N) (refer to 'apathy' and 'indifference' as mentioned earlier in bold text)
4. Mildly Parasympathetic Response (denoted using P+)
5. Significantly Parasympathetic Response (denoted using P++)

As explained above, reiterating for clarity, these different responses will be interpreted in different ways in different methods, for example, S++ response obtained using a particular method will have a different interpretation than the S++ response obtained using any other method, P++ response obtained using a particular method will have a different interpretation than the P++ response obtained using any other method, and so on. These differences in interpretations are explained for each method of ANSAR examination as follows.

#### *A. How to Differentiate Between mild & Significant Responses*

There are multiple methods of examining the Activity Response of the ANS. When through any single method of examination, a response is obtained, that such sympathetic or parasympathetic response obtained through a single method of examination will be considered as a mild response (S+ or P+).

Whenever any specific sympathetic or parasympathetic response is confirmed simultaneously by more than one method of ANSAR examination, such specific response shall be considered as a significant response (S++ or P++).

The only exception is the method of Body Language examination (ANSAR-BL), in which all responses are to be considered significant only (S++ or P++).

## **IV. INTERPRETATION OF RESPONSES**

### *A. Sympathetic Response*

Ideally known as the Fight or Flight or Freeze response - produced during times of stress and dealing with uncertainty, either real or imagination. Fight implies anger, Flight implies fear, and Freeze implies trauma caused either by anger or fear. It is also triggered by sexual arousal.

### *B. Parasympathetic Response*

Ideally known as the Rest, Recover & Digest response - produced during times of relaxation and dealing with familiar objects, either real or imagination. Parasympathetic state is the normal relaxed state - deviations caused by anger, fear, trauma or sexual arousal triggers the sympathetic response.

## **V. METHODS OF ANSAR EXAMINATIONS**

### *A. Pupil Dilation (ANSAR-PD)*

The pupil of both eyes dilate and constrict in real-time when sympathetic and parasympathetic responses occur respectively. These responses usually occur for durations of a few seconds. While examining the dilation or constriction of pupils, other causes of pupil dilation/constriction have to be carefully ruled out, such as changes in intensity of light, changes in object of focus, excessive drug and alcohol use, fear, alterations in ambience, eye injury, brain damage, etc. which can be done easily in clinical setting.

Thus, while ascertaining the Activity Response of the Autonomic Nervous System by examining Pupil Dilation (ANSAR-PD), when all other known factors which cause pupil dilation/constriction are ruled out, we can safely interpret the dilation of pupils as a real-time marker of Sympathetic response, and the constriction of pupils as a real-time marker of Parasympathetic response.

### *B. Voice Modulation (ANSAR-VM)*



Even though Voice Modulation can be done consciously at will, still the demarcations between Sympathetic & Parasympathetic responses can be perceived. By voice modulation we refer to the changes in pitch, tone & volume of the sound produced by mouth + vocal cords. Although the pitch, tone & volume of voice can be changed consciously at-will, our brain naturally lacks the capacity to consciously control these factors on word-to-word Response while speaking unplanned coherently - in short, voice modulation is essentially a subconscious or unconscious process when observing on word-to-word Response. We observe that people change their voice's pitch, tone & volume multiple times within sentences, each indicative of sympathetic or parasympathetic responses to the elements within those sentences, such as different words or different meanings conveyed through a set of words.

During sympathetic response, in real-time, voice becomes more formal in tone, more sharp (high-pitch / tensed) in pitch & high in volume. During parasympathetic response, in real-time, voice becomes more informal in tone, more deep (low-pitch / relaxed) in pitch & low in volume.

### C. Body Language (ANSAR-BL)

The extreme of sympathetic or parasympathetic response produces observable body gestures, synonymous with body language. All the individual gestures in body language are divided broadly into these two categories by the mainstream

Open body language : gestures produced when feeling safe - extreme of parasympathetic activity response of ANS.

Closed body language : gestures produced when dealing with uncertainty, such as fear, confusion, and so on - extreme of sympathetic activity response of ANS.

Changes in body language/gestures do happen in real-time but only as an extreme of response. A simple way to differentiate between open & closed body language is to understand the neuropsychological fact that when a body's sympathetic nervous system is active, the body shrinks itself in space such a way to protect/hide the vital organs of the body. It is the very same reason people cross their arms when uncomfortable to unconsciously protect their heart, people touch/cover mouth & throat areas while lying or speaking risky words, and so on. To understand the sympathetic shrinking, just imagine how we shrink in cold to keep all vital organs warm.

As mentioned earlier, the parasympathetic response is the normal relaxed state, where the person will drop-hang-relax their body exposing all vital parts of the body. To understand the parasympathetic response better, understand that the body uses extreme parasympathetic response to induce sleep - by drop-hang-relax all muscles.

### D. Respiratory & Pulse Rate (ANSAR-RPR)

A sudden rise in pulse rate and respiratory rate simultaneously, after ruling out any possible physiological stress, can be considered to be a sympathetic response, whereas a sudden drop in pulse rate and respiratory rate simultaneously, after ruling out any possible physiological relaxation, can be considered to be a parasympathetic response.

More methods of ANSAR examination are being researched upon by the author which will be published subsequently in further research papers.

## VI. DISCUSSION

It is well known in modern scientific literature about the functioning of autonomous nervous system, but amidst the advanced complicated structured knowledge, we should not forget that it is really the hypothalamus in brain which controls the autonomous nervous system - it is the hypothalamus which will

decide whether a sympathetic or parasympathetic response should be instructed down the neurons any reaction to any specific stimulus or situation. How does the hypothalamus decide? Through a well known circuit in the brain known as 'Amygdala' to be specific, or the complete limbic system of the triune brain classification to be accurate.

By 'stimulus' we refer to any specific input of data from any sensory organ and by 'situation' we refer to the complete set of sensory input by all sensory organs combined. When any stimulus or situation after being received from the sensory organ(s) goes to the brain in the form of electrochemical data, different circuits and brain work together to ascertain the meaning and to react accordingly - this overall reaction is carried out by the physical body by the brain through the autonomous nervous system by either responding sympathetically or parasympathetically, depending upon that stimulus or situation.

What makes the reactions of different individuals unique is the social conditioning of the brain/mind - the memories and experiences since our birth, shapes the circuits in our brain, and as each human has had different experiences in life and different set of memories, each human has a very unique brain that processes information uniquely resulting in different reactions to different stimulus and situations. Having said that, The functioning of the autonomous nervous system remains identical across the species - meaning all humans use the same autonomous nervous system and exhibit similar reactions consciously and unconsciously in various categories of reactions to various stimulus and situations, depending on their subjective unique brain/mind programming.

ANSAR examination system is an effort by the author to provide the community with adequate methods and knowledge to interpret these signals by the autonomous nervous system for the purpose of ascertaining the subconscious and unconscious reaction of a person for any specific stimulus or situation.

As mentioned in beginning, these examination methods are specifically useful for psychologists and psychiatrists - just to hint about how greatly these methods of examinations can be used to recognise which specific words or which parts or specific elements of sentences, that a person is speaking or listening to, are making that person feel specific emotions associated with sympathetic response or otherwise, no matter if they are contradicting it consciously by spoken language, as many clinical patients do. This would drastically help a lot of therapists to understand the subconscious & unconscious structure of their patient's mind.

These ANSAR examination techniques can also be used by the military for interrogations, lie detections, and so on.

Lie detection can be done very easily and very effectively using ANSAR examination methods - speaking a lie will definitely trigger an observable sympathetic response, no matter how mild.

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