

Article

Human Body as Cradle of Consciousness

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Abstract

Universe is six-dimensional environment containing dimensions of consciousness, time, space, energy and matter. The complete universe appears infinite to us and houses a large number of galaxies. A galaxy is a mini universe in itself. The purpose of creation is to create a mechanism for learning. The mechanism of learning is for software soul or monad which evolves from a binary spark of pure consciousness and keeps on learning by integrating in various types of body vehicles of organisms. Life has evolved on earth from simple to complex, in the scheme of progressive complexity. It is the software soul or monad which is benefiting from the lives with various organism bodies as its vehicles and keeps evolving (by learning). Human evolution started from different designs and subsequent corrections & improvements. An outsider's perspective is required to understand nature of human body and its integration with consciousness.

Keywords: Human body, consciousness, monad, atma, man, space, time, matter, energy.

Origin of the word Human, Man & Adami

Human beings are intelligent creatures. The roots of word are from a common source. The word human [1] comes from Late Middle English humayne, humain, from Middle French humain, from Latin hūmānus meaning of or belonging to a man.

The word man also signifies the offspring's of Manu (Nuh, Noah). Manu is the first progenitor of humans on Earth. Man also comes from the Sanskrit root man meaning 'to think'. Since thinking proceeds from the mind and hence word 'the man' means 'the thinker'. The 'Manushyas' (men) and the Manus are here equivalent to the Chaldean and Assyrian's 'Adam' meaning the mankind [2]. The Jews consider Adam as one solitary individual Adam and Adami is a generic compound name as old as the languages themselves. The Secret Doctrine teaches that Adi was the name given to the first speaking race of mankind by the Aryans.

The author of the Qabbalah, (according to) the philosophical writings of Ibn Gabriel shows the Israelite using the word Adonai. The Adonim and Adonai (the ancient plural form of the word Adon), which the Jews applied to their Jehovah and angels, were simply the first spiritual and ethereal sons of the earth and the god Adonis. Adonis, in his many variations stood for the First Lord. Adam comes from the Sanskrit word root 'Ad' meaning the first ones. Ada-Nâth, also means the first Lord. The reason for this is that such truths have a common inheritance. Adami was a manifold symbol originating with the Aryans, as the root word shows, and having been taken from them by the Semites and the Turanians.

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Cellular Structure

Cell is the basic structure of organisms [4]. All cells are made by other cells. The environment outside the cell is separated from the inside of the cell by the cell membrane. Cells are made up of proteins and organelles. Cells are specialised to their function. This is known as specialised cells. Each group of specialised cells organises to form a tissue. Groups of cells form tissues and systems. The main purpose of a cell is to organize. Cells hold a variety of pieces and each cell has a different set of functions. Some cells move throughout the body, like blood cells. Others are attached to one another like muscle cells, and they stay in one place. Some cells, like skin cells, divide and reproduce quickly. Nerve cells do not divide or reproduce except under unusual circumstances. Human cells have a membrane that holds the contents together. However, this membrane is not just a sac. It has receptors that identify the cell to other cells.

Eukaryotic and prokaryotic [5] cells are the two main types of cells. Eukaryotic cells are called so because they have a true nucleus that is enclosed within a membrane. Animals, plants, fungi, and protists are examples of organisms that contain eukaryotic cells. Prokaryotic organisms include bacteria and archaeans. The prokaryotic cell nucleus is not enclosed within a membrane. Most prokaryotic cells replicate by a process called binary fission. This is a type of cloning process in which two identical cells are derived from a single cell. Eukaryotic organisms are also capable of reproducing asexually through mitosis. In addition, some eukaryotes are capable of sexual reproduction. This involves the fusion of sex cells or gametes.

Cells within the human body have different life spans based on the type and function of the cell. They can live anywhere from a few days to a year. When a cell becomes damaged or undergoes some type of infection, it will self-destruct by a process called apoptosis. Apoptosis works to ensure proper development and to keep the body's natural process of mitosis in check. A cell's inability to undergo apoptosis can result in the development of cancer.

There are more bacterial cells in the body than human cells. Scientists have estimated that about 95% of all the cells in the body are bacteria. The vast majority of these microbes can be found within the digestive tract. Billions of bacteria also live on the skin.

We need to eat and drink to survive, and so do our cells. Using a process called endocytosis, cells ingest nutrients, fluids, proteins and other molecules. An international team of researchers recently revealed new details about endocytosis [6], an activity that, when it malfunctions, can lead to diseases such as muscular dystrophy, Alzheimer's and leukemia. During endocytosis, the cell membrane curves inwards forming a mouth to engulf ingestible cargo. The process is relaxed; Dynamin and lipids work together, requiring only a modest input of energy, allowing a fine meal to slip down easily. Endocytosis can be hijacked by parasites, bacteria and viruses that enter and infect human cells.

One of the cell's trash processors is called the proteasome. It breaks down proteins, the building blocks and mini-machines that make up many cell parts. The barrel-shaped proteasome disassembles damaged or unwanted proteins, breaking them into bits that the cell can re-use to make new proteins. In this way, the proteasome is just as much a recycling plant as it is a garbage disposal. How does the cell know which proteins to keep and which to trash? The 2004 Nobel Prize in chemistry went to three scientists for answering this question. They found that the cell labels its refuse with a tiny protein tag called ubiquitin. Once a protein has the ubiquitin

label, the proteasome can grab it, put it inside the barrel, break it down and release the pieces. Because diseases like Alzheimer's involve the accumulation of excess proteins, researchers are trying to develop medicines to help the proteasome out. They hope such a treatment would keep brain cells clean and healthy.

Cell communication

Cells do not live in isolation. Their survival depends on receiving and processing information from the outside environment, whether that information pertains to the availability of nutrients, changes in temperature, or variations in light levels. Cells can also communicate directly with one another and change their own internal workings in response. This is done by the way of variety of chemical and mechanical signals. In multi-cellular organisms, cell signaling allows for specialization of groups of cells. Multiple cell types can then join together to form tissues such as muscle, blood, and brain tissue. Membrane signaling involves proteins shaped into receptors embedded in the cell's membrane that biophysically connect the triggers in the external environment to the ongoing dynamic chemistry inside a cell. Signaling at the membrane also involves ion channels, which allow the direct passage of molecules between external and internal compartments of the cell.

Cells have evolved a variety of signaling mechanisms to accomplish the transmission of important biological information [8]. Some examples of this variety are receptors that allow ion currents to flow in response to photons, which effectively translates light into chemical messengers inside the cones and rods cells of the retina; growth factors that interact with the cell membrane and can trigger receptors that powerfully affect chromatin structure and the modulation of gene expression; metabolites in the blood that can trigger a cell's receptors to cause the release of a hormone needed for glucose regulation; adhesion receptors that can convey tension-generated forces that direct a cell to stay put or change direction of movement; and developmentally regulated receptors that can strictly guide the path of a migrating cell, ultimately controlling how an entire organism is wired together.

Despite technical advances, global understanding of signal transduction, its internal hierarchies, and its highly integrated and extremely dynamic nature remains largely mysterious. A potential breakthrough in the field arose recently when **scientists realized that there are striking analogies between signaling networks in biological systems and electronic circuits**; both of them involve hierarchies, switches, modularity, redundancy, and the existence of powerful feedback mechanisms. Such a realization gave impetus to the field of computational biology as applied to cellular signaling. As it turns out, we are just beginning to appreciate that **many of the designs and strategies we have developed to manipulate information, particularly within the digital world, are actually present in biological networks.**

Design of Human Body Machine

The main systems of the human body [9] are the following:

- (i) Circulatory system: This is like hydraulic system in a machine. It circulates blood around the body via the heart, arteries and veins, delivering oxygen and nutrients to organs

and cells and carrying their waste products away and Keeps the body's temperature in a safe range.

(ii) Digestive system and excretory system: The energy generation system of the body. System to absorb nutrients and remove waste via the gastrointestinal tract, including the mouth, esophagus, stomach and intestines. Eliminates waste from the body. Renal system and Urinary system. The system where the kidneys filter blood to produce urine, and get rid of waste.

(iii) Nervous system: Collects and processes information from the senses via nerves and the brain and tells the muscles to contract to cause physical actions. The control over body functions is also exercised through the endocrine system which influences the function of the body using hormones.

(iv) Immune system and lymphatic system: Defends the body against pathogens that may harm the body. The system comprising a network of lymphatic vessels that carry a clear fluid called lymph.

(v) Respiratory system: Brings air into and out of the lungs to absorb oxygen and remove carbon dioxide.

(vi) Skeletal system: Bones maintain the structure of the body and its organs. Muscular system: Enables the body to move using muscles.

(vii) Reproductive system ensures survival of species. It consists of the reproductive organs required for the production of offspring.

(viii) Integumentary system / exocrine system: Skin, hair, nails, sweat and other exocrine glands.

Medical books are full of such information. We will limit ourselves to examination of sensing and control systems in human beings. The human body is said to be made of five element groups viz Earth (solid elements), Water (liquids), Fire (the process of chemical transformation), Air (Vata) and Aether (Prana or Aakash). The control system is exercised by air and aether systems, with medium of air having visible control and medium of aether having invisible flow of information system.

As per Ayurveda (knowledge about ageing), Vata [10] is a primitive body constituent that is responsible for the body control mechanism. Pitta is the body constituent which is responsible for bioconversion in the body. Kapha is the body constituent responsible for cementing of body cells and provide nutrition to the body.

Vata is life and vitality, vata is supporter of all embodied beings. Vata is the lord of all. A person whose vata is with unimpaired movements and is in normal state lives hundred years. Sharir Vata

is that force which keeps the kapha, pitta, dhatus and malas in motion; like the wind that propels the cloud from place to place in the sky. Vata is powerful in view of its activating others and putting them to work. Vata maintains a state of equilibrium between the different doshas and the fundamental principles of the body (Dhatus); it further tends to maintain uniform state in the metabolism of the body and helps the organs of sense perception in discharging their specific functions. Vata is of five types viz— Pran, Apan , Vyan, Saman and Udan.

Pran vata is inward and downward motion of breath. Anahata chakra seated in the heart governs respiration, swallowing, and movements of the gullet. Prana also resides in the eyes and ears, operates in the heart and lungs. It is located in head, chest, throat, tongue, mouth and nose. Its functions are spitting, sneezing, belching, respiration and digestion.

Udanvata is upward and outward motion. Vishuddi chakra is seated in the throat above the larynx and it regulates falling asleep, controls all automatic functions in the head and maintains body heat. Udana is responsible for speech, music and humming. At the time of death Udana separates the astral body from the physical body. By controlling Udana, it is said that levitation can occur. Udana is responsible for "kundalini" rising up the spine.

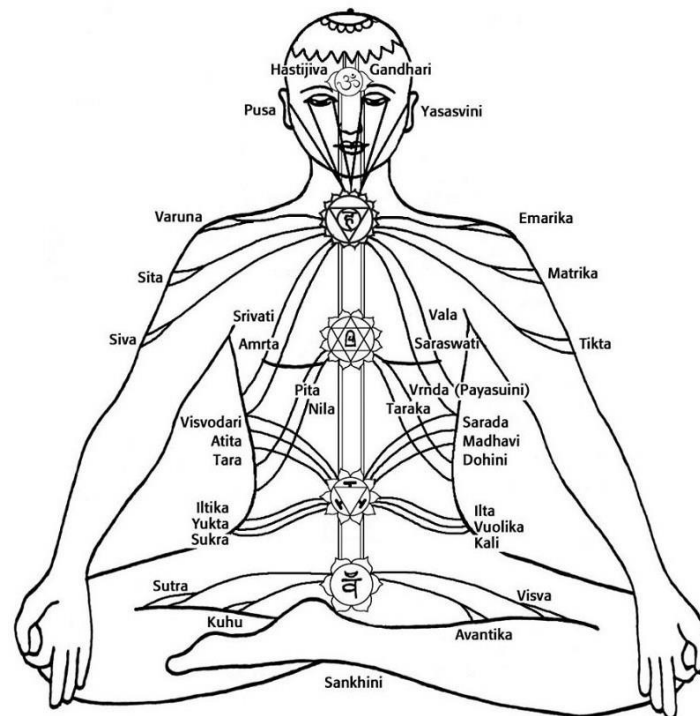
Vyanvata (back-breathing) is circular motion, a combination of Prana and Apana, by which these two are held. All- pervading and moving through all the nadis, it controls the circulatory, lymphatic and nervous systems, directs voluntary and involuntary movements of muscles, joints, tendons and fascia, and **keeps the body upright** through subconscious reflexes. Vyana is responsible for blood flow and lymph detoxification, sweating and coordination of all systems. The word Vyana means 'pervading one'. It is located in whole body and performs the functions such as movements, extension, contraction, blinking etc.

Samanvata is breath in horizontal motion. Manipura chakra is seated in the navel and it maintains digestive fire and regulates stomach, liver, pancreas and intestine. Its realm of activity extends from the heart to the navel. Samana carries the grosser product of food to Apana for excretion, and brings the subtler material to the extremities. The word samana means equaliser. It is located in channels carrying sweat doshas and water (fluid). The ancient scripture Yoga Sutras says that by conquering the vital force called Samana, effulgence is acquired. By developing Samana Vayu (current, impulse, vital air), all parts of your body are properly nourished, and the energy supplied by food is evenly distributed. By controlling Samana, one gains charisma and a powerful aura. It is said in the scriptures that "seven lights" proceed from Samana.

Apan vata is downward and outward motion. Muladhara chakra is seated in the anus and it governs excretion and the kidneys, bladder, genitals, colon and rectum. It is responsible for flatulence, ejaculation, conception, childbirth, defecation and urination. It regulates the sense of smell, makes the body stable, and its range of influence is from the navel to the rectum. It is located in testes, bladder, umbilicus, thighs, groin, rectum and the lower part of intestine.

Apart from the visible Vata which helps controlling the body functions, we have information busbars moving a lot of information from every part and sensor to its controlling agents and to the mind. These bus bars are known as 'Nadis' and are invisible as information passes through cell wall to cell wall using electrical and or subtle energy. The Sanskrit term 'Nadi' comes from

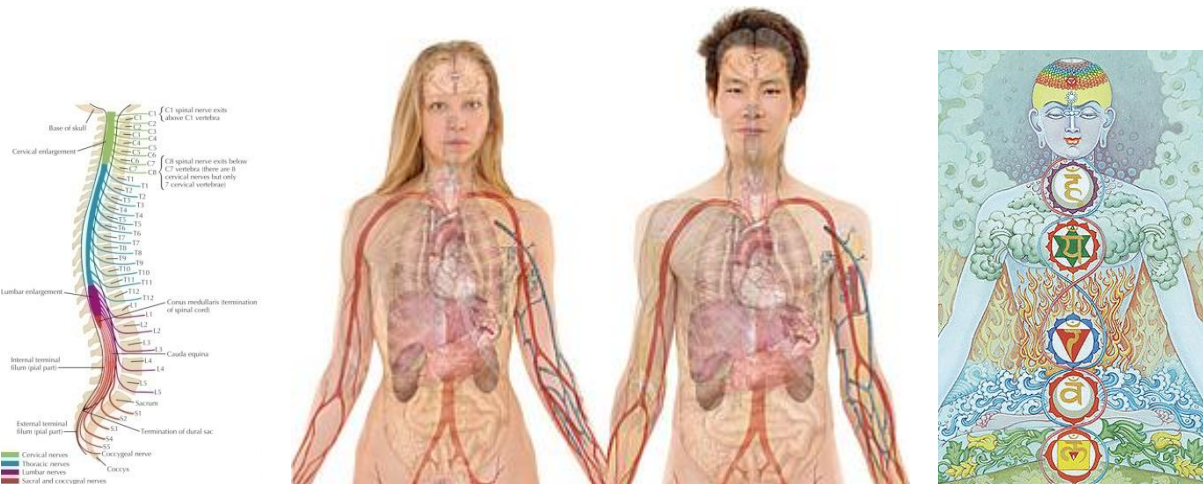
the root 'Nad', which means vibration, sound or flow. Just how veins and arteries are important for the healthy functioning of our physical body, nadis are responsible for information flow that will empower and control other systems. For example, if a man is sitting in relaxed position, mind has the information about where the limbs are pointing, even if a toe finger is moved, the information about the angular movement will be there in the brain. The continuous flow of information is about orientation, g force, movement, environment variables such as temperature, humidity, wind etc and input from other prime sensors to mind and other control centers. It is said that there are 72000 major channels of communication. In total these could go up to 3,50,000. Nadis [12] are not physical, measurable or dissecting structures within the body, but channels of energy which underlie beneath the physical organs and help us sustain life and consciousness. In higher states of consciousness the nadis can actually be seen as flows of energy, as described by the yogis. They can be perceived at psychic levels as distinct channels of light, colour and sound. Scientific research has been carried out to verify the existence of the nadis. Dr Hiroshi Motoyama pioneered this research and found a stable voltage of electromagnetic currents flowing within close proximity to our nervous system, which he cited as evidence that the nadis existed.



The classic five senses are sight, smell, hearing, taste, and touch. The organs that do these things are the eyes, nose, ears, tongue, and skin. The five sensor actuators are the mouth (with the double function of speaking and eating), the hands, the legs, the genitalia and the rectum.

These sensors connect through the nadis to Central and Peripheral nervous system. The nervous system [13] is a highly complex part of an animal that coordinates its actions and sensory information by transmitting signals to and from different parts of its body. The nervous system detects environmental changes that impact the body, and then works in tandem with the endocrine system to respond to such events. The central nervous system (CNS) is the part of the nervous system consisting primarily of the brain and spinal cord. The CNS is so named because

it integrates the received information and coordinates and influences the activity of all parts of the bodies of bilaterally symmetric animals. The peripheral nervous system (PNS) is one of two components that make up the nervous system of bilateral animals, with the other part being the central nervous system (CNS). The PNS consists of the nerves and ganglia outside the brain and spinal cord. The main function of the PNS is to connect the CNS to the limbs and organs, essentially serving as a relay between the brain and spinal cord and the rest of the body. Wherever the nerves are connecting to CNS, there forms a nervous complex center which corresponds to Chakras (circles) in Ayurveda.

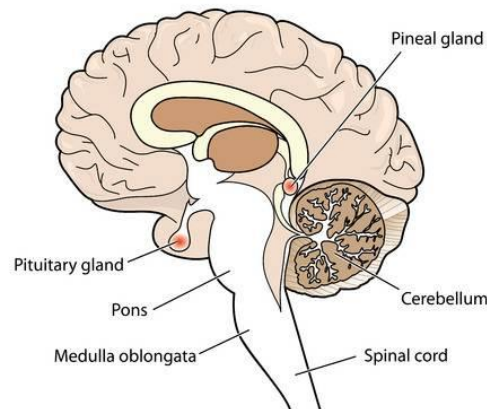


Organs have local control mechanism which we know as muscle memory, some of the control is exercised by the CNS through these Chakras and some through the brain using the pituitary and pineal glands. Most of the hardwired impulses and designed functions are executed locally. This indicates a well-designed, hierarchical control system which is really complex. The pituitary gland is a small pea-sized gland that plays a major role in regulating vital body functions and general wellbeing. It is referred to as the body's 'master gland' because it controls the activity of most other hormone-secreting glands. [15] The pineal gland has long been an enigmatic structure. Even in the early 21st century, when sophisticated molecular techniques were available for biological study, fundamental features of the gland including the extent of the effects of its principal hormone, melatonin, remained incompletely understood. It is located in the epithalamus, near the center of the brain, between the two hemispheres, tucked in a groove where the two halves of the thalamus join. The pineal gland produces melatonin, a serotonin-derived hormone which modulates sleep patterns in both circadian and seasonal cycles.

The pineal gland was also known as 'third eye' [16] for many reasons, including its location deep in the center of the brain and its connection to light. Mystic and esoteric spiritual traditions suggest it serves as a metaphysical connection between the physical and spiritual worlds. [17] What's fascinating is that the interior of the pineal gland actually has retinal tissue composed of rods and cones (photoreceptors) inside its interior lining just like the eye, and is even wired into the visual cortex in the brain. "The photoreceptors of the retina strongly resemble the cells of the pineal gland". Dr. David Klein, Science Daily. It even has vitreous fluid in it like an eye does. Furthermore, a study published in *Experimental Eye Research* revealed that "Although the

mammalian pineal gland is considered to be only indirectly photosensitive, the presence of proteins in the pineal gland which are morally involved in phototransduction (light sensing) in the retina, raises the possibility that direct photic events may occur in the mammalian pineal gland”. The pineal gland is also thought to secrete a chemical known as DMT, which has the nickname of “The Spirit Molecule”.

DMT (Dimethyl tryptamine) is a hallucinogenic tryptamine drug that occurs naturally in many plants and animals. DMT is believed to be released during dreaming, during spiritual and mystical experiences, and during the time of death. It is a chemical compound that, when ingested, has the most powerful hallucinogenic effects out of any other drug. French philosopher René Descartes (1596-1650) emphasized the pineal gland in his writings, calling it the seat of the soul and “The part of the body in which the soul directly exercises its function.” He contended that this was the centre at which the soul and body interacted, and where we receive our messages from the Divine. Jesus says in Matthew 6-22: “The light of the body is the eye: if therefore thine eye be single, thy whole body shall be full of light.” Therefore, the idea of there being a spiritual eye is not a new idea. There is not proof that the pineal gland is a spiritual eye seeing into other dimensions, but it is proof that it has the biological potential to be an actual eye.



Incidentally, DMT is also an ingredient of cannabis or hemp. It has also been described in Vedas as constituents of Soma. The five kingdoms of plants, having Soma as their chief, we address, the darbha, hemp, barley, saha — let them free us from distress— Translated by William Dwight Whitney, Atharva Veda 11.6.15. Sushruta Samhita (c. 600 BCE) again mentions ‘Bhanga’ as a medicinal plant, and recommends it for treating catarrh, phlegm and diarrhea. Sharngadhara Samhita (13th century) also gives medicinal uses of cannabis, mentions it as one of the drugs which act very quickly in the body. Cannabis also finds its mention in other historic scriptures like Dhanvantari, Nighantu, Sarngandhara Samhita and Kayyadeva Nighantu. It is also referred in Ayurveda as an ingredient in various recipes of pain relievers and aphrodisiacs, but in small quantities. Shiva is said to have chosen cannabis as his favorite food. Some of the Himalayan Saints use it to get divine experience. However, it should not be misconstrued as a shortcut to meditation. Release of DMT during Samadhi is a natural process and that doesn’t need to be substituted.

From the information described till now, we can deduce that human body is a complex machine. Firstly the individual cells who themselves are intelligent; secondary they are part of organs which also have muscle memory. The building blocks of human body are connected in intelligent integration leading to completely autonomous human body which can also reproduce its own type before it reaches end of its design life.

The design life of human body is said to be 100-120 years. It is a well observed fact which doesn't need over emphasis. Also, the human tissues and animal tissue are similar in much sense and share the common principles. The breathing rate represents a biological cycle which is connected to pulse rate, blood pressure, blood oxygen and heart rate. The heart being the principle propelling engine of this body and its muscles are specially designed. The animals and human respiration rates are an interesting fact to be observed. Adwaita was believed to be the oldest tortoise in the world. Although Adwaita's exact age was never confirmed, officials from the Alipore Zoological Gardens in Kolkata, India – where Adwaita spent most of his life – believe that he was about 250 years old when he died.

Type of Animal	Respiration Rate	Pulse Rate (beats/minute)	LifeSpan (Years)
Tortoise	3-4/min	10	200-400
Human	12-15/min	72	100-120
Horse	8-15/min	36-42	25-30
Cattle	12-16/min	45-60	18-22
Sheep	12-30/min	70-80	10-12
Goat	20-30/min	70-90	15-18
Pig	20-30/min	60-80	15-20
Poultry	12-28/min	250-300	5

Yogic philosophy says our lifespan depends on the number of breaths we take. [18] We can easily validate this by observing animals: a tortoise breathes very slowly, approximately four breaths per minute and lives a long life. On the other hand, dogs take in around 24 breaths per minute at rest and live for only up to 13 years.

Average human takes 21600 breaths per day, 900 breaths per hour and 15 breaths per min, making it total of 7,884,000 breaths per year. In 100 years, it would be 788,400,000 or roughly 788 million breaths. These represent strength of biological tissue. Now calculating backwards, for a horse with a rate of 42 breaths for a healthy horse will give him 35 years. Variations in results may be due to varied levels of stress, diurnal, seasonal, lifestyle, food, pollution levels and exposure to unnatural chemicals.

Consciousness

The hardware part of the body is understood and its control system is also understood through the various glands, Vats and Nadis. The entire networks of nadis represent a subtle body which can also be reflected in Aura of a person. Most of the alternative medicinal systems Acupressure, Acupuncture, Su Jok, Tai Chi, Pranic Healing and Reiki etc are dependent on this body. However, till now we have not come to know who is the controller of the entire system i.e. cognition. Brain is only the hardware part which helps like CPU in a computer and the Software is yet to be described.

Ancient humans were aware about this entity whose analogy we draw as software. The Chaldean Book of Numbers contains a detailed explanation of design of soul for human body[3]. The first triad of the body of Adam Kadmon (the three upper planes of the seven) cannot be seen before the soul stands in the presence of the Ancient of Days. It is the four orders of Dhyan Chohans (Prajapatis) out of the seven who were the progenitors of the *concealed* man (the subtle inner man). The Lha (spirit) of the Moon, the lunar spirits, were, as already stated, only the *ancestors of his form, i.e.*, of the model according to which Nature began her external work upon him. Thus primitive organism was, when he appeared, only a senseless Bhûta (grouped elements). This creation was a failure which nullifies the concept of autonomous evolution.

The Adam of dust requires the *Soul of Life* to be breathed into him: the two middle principles, which are the *sentient* life of the irrational animal and the Human Soul, for the former is irrational without the latter. It is only when, from a potential androgyny, man has become separated into male and female, that he will be endowed with this conscious, rational, individual Soul. Maharishi Kanad reflects some light on nature of soul in Visheshaka Sutra. The Soul is therefore to be known and Maharishi Kanada shows how it would be known. Hence the Vaisheshika Sastra is also called Adhyatma Sastra, a treatise of the Soul. It was enough for his purpose to demonstrate the nature of the Soul in the journey through time, the suffering Soul revolving on the wheel of births and deaths and re-births under the Law of Karma. The universal experience of Suffering compels an enquiry as to the means of its removal, namely, realisation of the truth about the Soul.

तत्रात्मा मनश्चाप्रत्यक्षो ॥ ८ । १ । २ ॥

There is Atma and Man (मन mind) which are indirect. Meaning these are manifested but cannot be seen, touched or manifested directly.

आत्मेन्द्रियार्थसन्निकर्षे ज्ञानस्य भावोऽभावश्च मनसो लिङ्गम् ॥ ३ । २ । १ ॥

When soul interacts with the knowledge drawn from senses through mind, ability draw inference is mark of presence of mind.

तस्य द्रव्यत्वमित्यत्वे वायुना व्याख्याते ॥ ३ । २ । २ ॥

The nature of soul is also like a substance and can be inferred similar to air. It needs little more clarification. As we learnt in earlier paper Dimension of Consciousness, Soul is pure

consciousness in layers. The layers are described below. Sharira means body and also the Kosha (layer). Sthula Sharir is physical body and the composition of physical body by the material available on earth. When we are referring Soul, we are actually discussing a body Sukshma Sharir (Subtle body), the body which is inside the physical body.

- (i) Sukshma Sharir: Sukshma mean small or Subtle. This body contains electrical or PranaSharir which contains all the Chakras (Pran complexes) and intellect.
- (ii) Karan Sharir: Causal Body. This is in the plane of consciousness and contains the body of thought which is abstract reason.
- (iii) Mahakaran Sharir. Root Causal Body. This body is even more abstract.
- (iv)Hansa (Ham Sa) Sharir. A level of Consciousness of soul which more refined than the Mahakaran Sharir.
- (v) Param-Hansa (Ham Sa) Sharir. A level of Consciousness of soul which more refined than the HansaSharir.
- (vi)Kaivalya Sharir. The highest level of refinement ready for merging in super consciousness.

Therefore, the Kuthasta Chaityna (deep rooted consciousness) is having six more layers before manifesting in the physical body. Although, we are unable to establish even the Sukshma Sharir using material instruments yet it can be done by using instruments available in our own body. The Sukshma Shariror Atmahas 4 components; these are Identity, Intellect, Mind, Consciousness (Chitta) (Karan Sharir). Similarly when intellect drops at next higher level of conscious plane, Identity, mind and Mahakaran Sharir will remain. At certain level mind and Identity are also dropped and then soul consciousness merges with God Consciousness.

Knowing all this process of creation of universe and various lokas one wonders then what is the cause of this entire creation the entire process is seem to increase God consciousness. Having such in depth knowledge about the life process, Vedas, formation of universe, Brahma, Vishnu and Shiva who are Sakar (perceptible) aspect of God, no one could describe Nirakar God or Parbrahma. It is said that nothing of this universe is capable of describing him neither we have senses. However, at certain stage of soul evolution and when we have shed most of the vestibules soul is able to sense God and he is felt in most loving manner.

प्रयत्नार्योगपद्याज्ज्ञानार्योगपद्याच्चैकम् ॥ ३ । २ । ३ ॥

About nature of learning by the intellect Kanada says as the inferences driven out of effort of learning and knowledge (learning) are same.

प्राणापाननिमेषोन्मेषजीवनमनोगतीन्द्रियान्तरविकाराः सुख-
दुःखेच्छाद्वेषप्रयत्नाश्चात्मनो लिङ्गानि ॥ ३।२।४ ॥

Prana-Apana-Nimesa-Unmesa-Jivana-Manogati-Indriyantara-vikarak meaning ascending life-breath, descending life-breath, closing and opening of the eyelids, life, the movement of the Mind and affections of the other senses along with Sukha-Duhkha-Ichchha-Dvesa-Prayatna meaning pleasure, pain, desire, aversion and volition are marks of presence of soul.

अहमितिशब्दस्य व्यतिरेकान्नागमिकम् ॥ ३।२।६ ॥

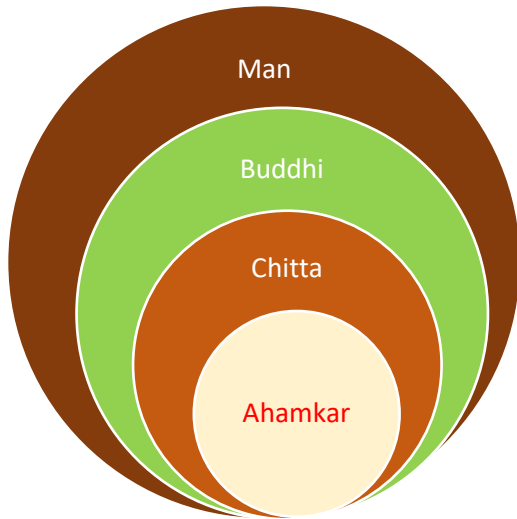
It is revealed that the word 'I' is not to be confused for soul.

दृष्टआत्मनि लिङ्गे एक एव दृढत्वात् प्रत्यक्षवत् प्रत्ययः ॥ ३।२।११ ॥

Soul is grasped by a perception and it is also accompanied with other perceived marks (from which it can be inferred). Due to this process by means of confirmation, the intuition becomes fastened to one and only one object.

यज्ञदत्त इति सन्निकर्षे प्रत्यक्षाभावाद्दृष्टं लिङ्गं न विद्यते ॥ ३।२।६ ॥

This is Yagdutt (name of a person) appears as a direct perception but there is no mark. The Identification is a very important aspect and we must draw an analogy from the process of storing information in a hard disk drive. Each memory field has a specific address. Same was there is an ID of Atma also, it has originated from a specific address and may go and merge there in end. Otherwise how would be differentiation between one soul and the other? Like it is described above, "Due to this process by means of confirmation, the intuition becomes concentrated to one and only one object". When the Child is born, you all must notice that he uses his name saying this thing belongs to xyz or xyz needs water. In the beginning ID of the soul does not bind with the body. Slowly it does and then everyone starts using the words I, me, myself and starts identifying himself with the body. This is known as 'Ahamkar' (अहंकार) in Sanskrit. The 'Ahamkar' (ego) is important but the misidentification does lead to progress in completely incorrect direction and therefore it becomes the cause of fall.



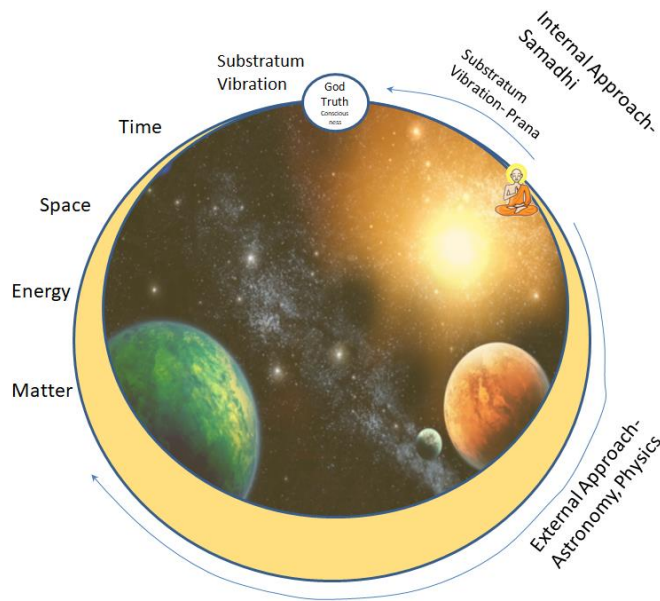
The physical nature of soul is discrete i.e. non continuous and eternal. The subtle energy is encoded information in unknown format. The information is stored in a layered fashion. The learning inferences get distilled to deeper levels. Individualized soul is also called causal body as it is the reason for a well-coordinated body having a purpose. The organs don't fight with each other and they act in unison as per sequence and priorities decided by the mind. Sri Yuktsheswar Giri explained to Parahansa Yogananda that this causal body is a matrix of the thirty-five ideas (akin to Software programs) as the basic or causal thought forces.

These programs form the subtle astral body of nineteen programs. The nineteen elements of the astral body are **mental, emotional and lifetronic** (by lifetronic he meant that which support life). The nineteen components are **ego, mind** consisting of six senses (sense-consciousness the subtle counterparts of the senses of sight, hearing, smell, taste, touch); **intellect** - five instruments of knowledge and five instruments of action; the mental correspondence for the executive abilities to procreate, excrete, talk, walk, and exercise manual skill; and five instruments of life force, those empowered to perform the crystallizing, assimilating, eliminating, metabolizing, and circulating functions of the body. They also have Chitta and Memory. The memory of all lives important events which needs to be carried forward for learning and unraveling proceeds of resultant actions (Karma) is also part of the causal body. This is what gives an individual, a sense of purpose. Also if someone is good at particular skill he is more likely to display favorable traits in next life also.

This software program which we call as Soul is the driver of the vehicle which we call as body. The learnt information inferences are added in intellect region, event information in memory region and skills and tastes in the respective regions of mind and body. The soul program starts its journey from the lower life forms, travels through the 8.4 million species learning all the required information and then it is sent to human body which gives more freedom. It is like progression of a pilot from single engine propeller planes, to more benign aircraft before proceeding on to heavier and more maneuverable jets and space crafts.

This subtle energy is like dark energy which is still beyond the detection instruments of science and it is having much higher abilities to travel faster than light in universe. The Ghosts, haunted houses, paranormal activities are caused by such bodies. All these bodies have been people at one point of time and these become slave to their own ideas, attachments and desires. The pure soul is also able to connect to dimension of consciousness Sat and tap in to knowledge of universe. In such fashion it can also communicate with other higher souls.

The following diagram describes how Soul is able to connect to Universal Consciousness Sat using internal body-mind mechanism. The body-mind instrument is enabling instrument for any soul to solve the puzzle of learning and progress to higher worlds. The learning is more in terms of Love, peace, happiness, responsibility, exercising control over senses than any material knowledge. The material knowledge is already available with the universe.



Functional Aspect of Life

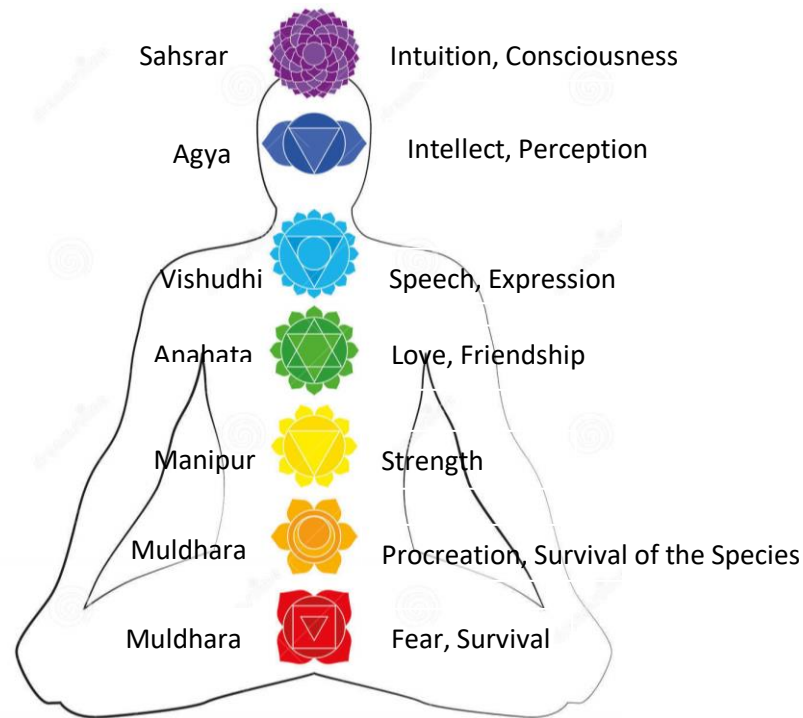
Forest animals such as beasts spend 60% of their time in grazing and carnivore's in hunting. They spend their life in two things, their own survival and survival of their species. Similar activities are also performed by humans in addition to forming a society.

We learnt earlier that as an individual has causal body Chakras. These are known as Muladhara, Swadhisthana, Manipura, Anahata, Vishuddhi, Agya and Sahsrar Chakras.

On the base of perineum lies the Muladhar Chakra signifying fear, sense of security. If this Chakra is not balanced then a person would be extremely security conscious. In extreme cases due to exposure to a fearful situation loss of bowl control is because of this reason. Fight or flight syndrome is also a characteristic of this.

Below the navel is small congregation of nerves, it also controls procreation. The entire system is designed for ensuring survival of the species. The pleasure is due to a large number of sensors

and acts as incentive for ensuring survival of the species. There is no other specific reason, it is designed specifically for motivation to indulge in procreation.



In navel center is Manipur Chakra taking care of digestion and ensuring calorific values from food for energy generation and body maintenance. Most of the physical strength is generated from here. Hunger is an indication for requirement of food and pleasure of taste is a motivation for eating food as well as mechanism for identifying suitable food.

The society would be incomplete without sense of love and friendship; these are the necessary ingredients of loving and caring social units such as family, clan and higher social systems. Man has advantage of power of expression through speech and hence able to evolve language for communicating. These higher centers are not so developed in Animals.

Higher Chakras enable intelligence and intuition, connect with dimension of consciousness. These centres give humans huge advantage over other animals. The humans are animals with intuitive capability. Humans are higher in evolutionary chain of soul but that doesn't mean that lower life forms are less important.

Therefore one wonders as to what is the charter for humans here on earth. There is a term for this known as Purusharth. Purushartha is a Sanskrit word that can be translated as the "object of human pursuit". The term is derived from the Sanskrit, purusha, meaning "person," and artha, meaning "purpose [19]. Purusha also means Supreme God and Jeeva as Atma. The duty of all humans is to seek God by following four types of activities which are Dharma, Artha, Kam and Moksha.

Dharma is what one ought to think, code of the conduct, duty, morals, ethics by which one should think and act to achieve the aim of Purushartha. Artha is accumulation of required material resources to fulfill ones worldly obligations. Kam is satiation of one's desires and Moksha is ultimate aim of spiritual liberation. The planning for life is by keeping objectives of the soul in mind and not the objective of the body. In Gita, action to achieve the above is prime duty of man. Action, according to orthodox tradition, is of two kinds: pravrtti and nivrtti [20]. The first kind of activity leads to progress (abhyudaya), and the second, to perfection (nihsreyasa). Manusmriti, 12.88. The action should be performed without attachment or craving for results. Action must be engaged in because it is Dharma, a duty and a moral activity and not because of one's craving for the results or material rewards without any consideration for Dharma. This idea of craving-free, dharma-driven action has been called Nishkam Karma in Bhagavad Gita. Isa Upanishad states "act and enjoy with renunciation, do not covet".

Conclusion

The human body has been examined in analytical manner in detail. The following aspects emerge:

1. Human cells are intelligent building blocks of life. These building blocks interact on the principle of electronic circuits and logic gates of highly advanced biochemical electronics.
2. These building blocks of life i.e. cell form tissues and organs which are of similar composition as the case with lower animals. Rate of breathing, metabolism, pulse rate, heart beat etc define the age of organisms. Therefore, only design differences exist.
3. To coordinate functions of the body and drive a meaningful output from it, a separate causal body is part of the physical body.
4. The causal body is set of software programs (Soul) which is eternal and keeps sum total of learning from one life span to other. Soul is able to connect to dimension of universal consciousness. This is how human body is cradle of consciousness and life has a higher purpose other than exploiting resources from earth and accumulating wealth and experiences of sensual pleasures.
5. The planning for life is by keeping objectives of the soul in mind and not the objectives of the body.

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