

## Yogic Experiences Detailed in the Indic Scriptures: A Rational View

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### Abstract

Modern science has addressed the issues concerned with the functioning of the human brain in the personal, social and to an extent in the global contexts. Centuries of efforts in understanding the functioning of human brain have merely provided a basic understanding of about 1% of the human brain. More importantly, the 'cosmic context' of its functioning that is richly discussed in the indic scriptures is neither defined nor explored by the current day science. This aspect of human experience, hitherto condemned as abnormal by modern science, may provide vital clues in unraveling the secrets of human brain and its behavior.

Modern science postulates that Human brain is like any typical engine with a limited energy at its disposal. The entropy inherent in its functioning leads to irrevocable loss of energy that has to be replenished. The process of replenishment can be natural rest, forced rest or medication that reduces or slows down the brain functioning. The indic scriptures profess that it is possible for the human brain to attain a state called "consciousness" wherein it has an unlimited energy at its disposal. An understanding of this human phenomenon has eluded many scientists and it may be the unexpected science to come in the new millennium.

Several methodologies vividly portrayed in the indic scriptures enable an individual to attain this highly coveted state of functioning of the brain. 'Kundalini Yoga' is one such methodology. The practitioner of this yoga is called a 'sadhaka'. Indic scriptures pertaining to this yoga provide graphic descriptions of several 'mysterious' experiences that could be encountered by the sadhaka. Lack of scientific basis coupled with gross mis-interpretation and misuse of the descriptions by quacks has condemned many aspects of this yoga into the realms of 'mysticism' and obnoxious cults.

This article is an attempt to provide a rational view for several mysterious experiences of the practitioners of 'Kundalini Yoga'. Some approaches to investigate such experiences using scientific methods are also suggested.

**Keywords:** Kundalini Yoga; Mysticism; Cosmic Context; Mantra; Music.

### Introduction [7]

*"Man cannot persist long in a conscious state; he must throw himself back into the unconscious, for his root lives there"*  
- Goethe

It is perhaps for this reason sleep is vital for healthy living. Sleep also provides the most familiar hallucinatory experiences called dreams.

Sleep is perhaps very close to an unconscious state of mind and can be tapped for useful information. Routine chores like walking, brushing teeth, driving and so on tend to be performed in a subconscious state of mind. This is perhaps the first trace of healthy trance. More pronounced form of this trance is seen in sportsmen focussed on the game oblivious of everything else. In short this is a form of highly focussed deep thought or a state of self-hypnosis. Trance has bothered philosophers and medical practitioners for several

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centuries. There is no cogent explanation of this phenomenon even today.

Hallucinations - 'seeing things', 'hearing voices' is considered to be a pathological symptom. Surprisingly, several eminent personalities such as Gautama Buddha, Saint Paul, Muhammed [20], Joan of Arc, Socrates reported that they have been inspired by divine forms and voices. In fact, this is believed to be the culmination of all penances. In Hindu philosophy a controlled form of recognizing a godly induction is often the end goal of a penance. This form is perhaps a state of mystical ecstasy. There is thus a huge grey area in the understanding of Hallucinations.

In fact, between conscious state of mind and the unconscious there are several states that demand deeper research and several states proving to elude a coherent understanding. Is trance divine or diabolic?

Certain Siberian tribes professed and practised a form of quasi-religious ecstasy called 'Shamanism'. It is believed to be an astral or mental unison with a chosen spirit. Witch-doctors practice this more as a business. The extreme form of this experience is called convulsion and this is diabolic. When the belief in the devil waned this state was called a mania or epilepsy. Henry Sigerist argued that man's instinct is purer in less developed civilisations. Shamanism is a temporary loss of instinct attributed to evil spirits. Any individual can control and enter this state of trance at will with training. A benevolent form of this aspect is penance for acquiring godliness or yoga.

External fear can induce epilepsy or fits. An individual tends to become hysterical. Unfortunately, this disease also gets tucked away in mysticism as it can be mimicked at will. An extreme form of hysterical fits is coma. In the eighteenth century it was called exorcism. Massage without touching the body was practised by 'stokers'. This was a cure for certain forms and grades of hysterical fits. Stokers rely on the belief that certain magnetisable fluids flow into the brain. This belief is also the basis for magnetic therapy.

Jesus Christ is believed to have achieved phenomenal success by instilling faith in the individuals exhibiting diabolic trance symptoms.

It is impossible to correct minds by Magic. Mesmer demonstrated that 'animal magnetism' can be induced into any individual. Mesmer theorised that this ability to induce can be

acquired by skilfully harnessing the physical and mental effects of the planets. Interestingly, this is the basis for several forms of occult techniques of India. Mesmerism can produce somnambulists too. There are instances like in magic shows where the mind control is used to move physical objects as well.

Hypnotism temporarily induces certain patterns of networks within the brain of the person (s) in front of the hypnotist. The pattern induced is a function of the hypnotists template network which is well-formed within his brain. This pattern temporarily displaces the 'self-conscious' state of the hypnotized person (s). This is a more advanced form of Mesmerism. The subject of the Hypnotist can do whatever is told in a sub-conscious state. The hindu yogic belief that mind can also control objects including bodies of other human beings external to the body of the yogi is akin to the theory of hypnotic therapy.

Decades of absolute materialism forced researchers to confine themselves to the physical nature of Brain. As a consequence, trance related symptoms are attributed to abnormal chemical flows in the brain. All of us in a regular work environment do have to get into a concentration shell or self-hypnosis at some point or the other. The yoga methodology prescribed in the Indic scriptures encompasses all the aspects discussed above and enables a smooth transition amongst various states of mind. Indic scriptures vividly describe four principle states of mind namely - waking state, dream state, deep-sleep state and self-realized state. There are several other advanced states such as 'Turiya', 'Samadhi' and so on are vividly described in the scriptures. A discussion on various states of mind is beyond the scope of this article. Yoga effects the state transitions and thereby kindles the latent untapped energies within the body of the yogi to produce startling behavioural changes and demonstratable psychic powers. However, until recently modern science has been reluctant even to admit that yoga could enable supra-normal behaviours and psychic powers.

### **Kundalini Yoga [6]**

The word 'yoga' seems to have been derived from the Sanskrit word 'Yuj' meaning 'to join' or 'to yoke'. Thus 'yoga' means joining or yoking the individual soul or self-conscious state of mind to the Ultimate or Brahman along the path of Self-realization. Hindu philosophy professes that everyone can attain the Brahman.

A vital force is believed to be asleep at the bottom of the Spinal Cord in every human being. When awakened it is believed to move upward towards the soft spot in the skull or Sahasraara along the Spinal cord. This vital force is called 'Kundalini'. It is called 'Oordhwagaprana' in the famous text 'Yoga Vaasistha' [14] as it indicates an upward movement of vital force. It was also called 'Udghata' in some commentaries of the Yoga sutras by Vyasa and Bhoja. 'Kundalini Yoga' is the rigorous practice of arousing the Kundalini and controlling its upward and downward movements along the Spinal cord. The body view professed by the practitioners of 'Kundalini Yoga' is discussed below.

- a. There are 14 important nerves each with an associated deity.
- b. There are 12 important organs each with an associated deity.
- c. There are seven charkas or psychic centers (termed lotuses in yogic parlance). Each psychic center has a specific location and several other attributes. Some of the pertinent attributes are the number of petals of each lotus at the psychic center and the associated sound with each petal.

*The seven charkas and their locations are given below.*

1. Muladhaara : Bottom of the Spine
2. Swadhisthana : Root of the Genital
3. Manipura : Naabhi (Navel)
4. Anaahaata : Heart
5. Vishuddhi : Throat
6. Aajna : Between the eye-brows
7. Sahasraara : Head

The 'devanagari letter' corresponding to the sound on each petal is nasalised. The first six chakras cover the entire devanagari alphabet (50 letters). The nasalisation is perhaps to bring the effect of the sound to the Brain. 'Mouna Japa' (silent meditation) is believed to yield best results. Also, the cosmic context is encapsulated in the form of a notion of time and ruling planet or sun or moon associated with each chakra.

The Aajna chakra represents the 'mind' and the Sahasraara represents the Brahman or The absolute. The vital forces start at Muladhaara and have to cross the chakras (hurdles) in between to reach Sahasraara. Mulaadhara is also the seat of 'Kandarpa' or Lord of Life controlling the vital air

'Apana'. The other vital air 'prana' is seated at the Anahata Chakra. The two airs pull each other and death occurs when this activity ceases.

A difficult chakra representing the 'Isthadevatha' (8 petalled lotus) is between Anahata Chakra and Manipura Chakra. One has to shake off the reliance on the 'Ishtadevatha' or favourite god or goddess to cross this hurdle. A 12-petalled lotus called 'Chandra-Loka' or 'Baindava-Sthana' just below the 'Sahasraara Chakra' represents the supreme state of consciousness or eternal bliss.

There are differences as to the number of petals across the Upanishads that detail this yoga [11]. The Yoga Kundalini Upanishad suggests 16 petals instead of 12 petals in the Anahata Chakra. The DhyanaBindu Upanishad and the Shandilya Upanishad suggest 12 petals instead of 10 petals in the Manipura Chakra. A number of works including the DhyanaBindu Upanishad refer to a secondary chakra below the Anahata Chakra. Many chakras between the Aajna Chakra and Sahasraara Chakra are also discussed. There are some disagreements in the matter of the colours of the petals. It is not surprising that such differences are on record. The chakras vary for different people and races. Their records depend on the faculties of the observers as well.

There are several variants of yogic methodologies to hasten the awakening and control of the Kundalini. Mantra yoga [9] is one such methodology. A small ceremony is performed to declare one as a 'dwija' or born again. The 'dwija' then begins to chant a sequence of potent sounds called 'mantra'. The first mantra chanted is usually the 'Gayatri Mantra'. A diligent practice of this mantra is expected to arouse the vital force in the body. A comparison of various yogic methodologies is beyond the scope of this article. The author is currently working on the correlation between the sound in form of mantra or music and the psychic powers and yogic experiences.

Chanting of the religious hymns or mantra is believed to regulate the flow of vital forces within the body. It is of little wonder therefore that the religious hymns comprising various arrangements of sounds that effect the charkas are believed to produce specific effects on the human mind and body. A disciplined chanting of the hymns enables anyone to attain 'The Brahman'. It is instructive to observe that Kundalini yoga is practised with a rigorous adherence to various postures called Asanas and Mudhras to derive maximum effects [13]. The Maitri Upanishad shows the importance of food [4] for psychological well-being of the sadhaka. The

Chandogya Upanishad speaks of the relationship between food and memory.

Many mystics around the globe believe that the Kundalini force is a tremendous reality [8]. Experimentation with it without comprehensive understanding can be dangerous. This is the key reason for classifying the details of 'Kundalini Yoga' as top secrets. Raja-Yoga is an alternative methodology that is based only on the notions of taking bodily care and indulging in selfless service to the society. The Hathayoga Pradipika [12] succinctly conveys that Raja-yoga gives liberation to yogis and bondage to fools. This is true with every methodology [15] that awakens and controls the Kundalini force. Every one thinks that there will be some divine intervention or exception made in his case. There is no evidence of any such kind of favouritism. One should be willing to work patiently along the improvement of character and service to the society. One should actively seek the righteousness of the God first, the other things would gradually accrue.

Doing good and leading a virtuous life are the preliminary requirements for salvation. The other associated rigours largely hasten the process. However, it is professed that salvation is rarely attained in a single birth. This philosophical approach enshrined in various paths of yoga was thus confined to the realms of the intellectuals in the society.

The masses needed an easy path to enjoy life, unhindered by human and superhuman agencies. This need was met by Tantrism. Tantrism held sway between 700-1300 A.D and dominated all religious approaches and notions. Tantrism offers an easy liberation by enjoining certain rituals, rites and ceremonies. 'Tantra' means something that extends knowledge. It also means a treatise, a manuscript or a book. There are several Tantras. Over the centuries the rituals and rites became crude and even crass. This ushered in several Tantric or Mystic cults. Jagadguru Adi Sankaracharya rooted out 72 such cults and established the intellectual notions enshrined in Yogic practices.

### Some Mysterious Yogic Experiences [16,17,18]

Yogic methodologies are psycho-physical disciplines involving the human body as a whole to deliberately cultivate psychic powers that could be exercised in the service of mankind and glorification of the divine in the man. Yoga is a pragmatic system of self-culture.

During the process of awakening of the Kundalini

the practitioner (sadhaka) beholds divine visions, experiences divine smell, divine taste, divine touch and hears anahata sounds. The anahata sounds are subtly generated within the body of the sadhaka. A sadhaka is expected to receive instructions from the unmanifest or super-natural. Effortless stopping of breath and subconscious recitation of potent sounds such as 'om' is considered commonplace in a sadhaka after the awakening of the Kundalini.

Strange vibrations in different parts of the body, sudden jerks like electric shocks are considered positive signs during the practice. Unbounded mental energy, the clear and insightful visions of the hidden meanings enshrined in the vedic scriptures, divine intoxication, spurt of oratorical powers and involuntary composition of poetry and hymns are considered definitive indicators of the awakening of the Kundalini.

This article deals only with the psychic powers acquired by an accomplished sadhaka or a Yogi. The various yogic feats and their queer descriptions are not explored. A yogi normally possesses eight major psychic powers. They are :

1. Anima : Power to become as minute as desired
2. Mahima : Power to become as big as desired
3. Laghima : Power to make the body as light as desired
4. Garima : Power to make the body as heavy as desired
5. Prapti : Power to touch any object in the universe including the sun, moon and the stars.
6. Prakamya : Power to retain the youthful jest and remain in water for any length of time
7. Vashitvam : Power to tame wild animals and bringing anyone under subjection
8. Ishatvam : Power to lord over the universe and to bring back life to the dead

'Prapti' enables the yogi to understand the languages of all animals and unknown languages. The yogi can predict future events and attains the occult powers such as clairvoyance, clairaudience, telepathy, thought-reading and so on.

As is true with many facets of Indic traditions translating the various terms [4] used to describe the states of mind and the psychic powers into English or any different language has never been easy. For example the description of 'Anima' may be interpreted as power to make others think of the yogi as a negligible entity in the Universe even if the yogi is lording over the universes. Lord Hanuman entering Lanka in a minute form and Lankini, the Goddess protecting Lanka, describing him as a playful and foolish little monkey illustrates this psychic power.

The author interprets 'prapti' as an ability to reach out for the stars or think big and aim high. These interpretations appeal to a rational mind investigating the facets of yogic experiences that may at times appear to be mysterious or inexplicable.

*A yogi acquires a host of other minor psychic powers such as:*

- Freedom from hunger and thirst
- Freedom from the effects of heat and cold
- Freedom from passionate feelings such as affection and hatred
- Clairvoyance and far-sightedness
- Clairaudience or listening sounds from distant places and letting speech travel to larger distances than normal
- Control of mind
- Assuming forms of choice (kamarupa facilitated by Anima and Mahima)
- Enter another body (parakaya pravesham). The author opines that this notion is purely meta-physical and something akin to what a hypnotist does.
- Death at will. The author interprets this ability as getting into 'samadhi' state at will.
- Rubbing shoulders with the Gods or the unmanifest.
- Getting at will whatever is desired
- Knowledge of the past, present and future
- Predicting the future and making it come true i.e prophetic speech
- Ability to turn base metals into Gold. This appears to be a yogic feat. However, interpreting it as an ability to convert anything into a runaway success makes it a psychic power.
- Taking many bodies to exhaust the karmas in one life. The 'atman' or the 'astral body' is a repository of the net vasanas and samskaras (habits) or karmas accrued over the past lives. This 'atman' is eternal and remains after the death of the person too. The yogic exercise is a tussle between the 'self' or 'I' and the cosmic context determined by the 'atman' to get rid of all the karmas in order to attain the Brahman. Getting rid of many such karmas simultaneously is a psychic power.
- Powers to leap like a frog. From a meta-physical standpoint this may be interpreted as an ability to leap-frog to correct conclusions and answers

in all contexts.

- Becoming the lord of desires and destroyer of sorrows and diseases
- Knowledge of past life
- Knowledge of distant clusters of stars. The ancient astronomy and astrology stand as testimonials for this type of psychic powers
- Mastery of the basic elements of life i.e Panchabhootas (Earth, Water, Fire, Air and Sky)
- Ability to move to any desired place (Kamachari)
- Omnipotence and Omniscience
- Levitating into air. This appears to be another yogic feat. However, this could be a psychic power that enables the yogi to carry himself and his powers very lightly at all places and times.
- Unearthing hidden treasures

There are many yogic feats vividly recounted in the scriptures. All these feats are normally addresses under topics such as 'Mind over Matter'[2] and are as such beyond the scope of this article.

Several of the psychic powers mentioned above suggest that there is a definitive possibility of changes occurring to the neurobiology and the electro-chemical interactions of the brain producing interesting effects on the body and human behaviour. Any normal man can control his thirst even if it is acute when there is no potable water in sight. A yogi does the same even when there is potable water with effortless ease and for longer durations of time.

There is a vast body of scriptures that explain the various psychic powers and describe yogic feats. However, there appears to be very little or no scientific basis for this human phenomena. Modern science has a 'relativistic' approach that warrants several independent observers to arrive at a similar conclusion. However, ancient scriptures are viewed from a social science notion of 'relativism' wherein the words of a seer or a rishi can never be challenged. A fear of being accursed is created in the inquiring minds of individuals and the society even resorts to punitive measures. It is a pity that innumerable quacks has grossly exploited this lacuna and condemned various notions of transpersonal psychology described above firmly into the realms of 'mystic cults' and several charlatans masquerading as god-men. The following section outlines the prospects and pitfalls in the process of providing the much needed scientific impetus to

various aspects associated with the practice of Kundalini yoga.

### Providing a Scientific basis

The study of sound took the form of 'physical acoustics' when auditoria and recording media came into prominence. 'Physiological acoustics' explores the mechanism of hearing in human beings. There is very little scientific work in the area of 'psychological acoustics' that deals with the perception of sound and its effects on the human mind.

The indic scriptures record the 'psychological acoustics' with remarkable clarity and consistency. Moreover, there are important glands and plexi [10,19] in the vicinity of the main psychic centers identified in the Kundalini yoga. While concrete medical evidence is proving to be elusive, there is sufficient reason to believe in the 'psychological effects' produced by the activation of the Kundalini force. Again, whether Kundalini effects the various glands and plexi is a moot point. The psychological aspects related to the seven chakras [1] discussed in the Hamsopanishad are mentioned in the Table 1 along with the gland and the plexus in the vicinity of the chakra.

Sangitaratnakara, a comprehensive treatise on Indian music also records the above effects and avers that the seven subtle tones have corresponding psychological effects. The Baindava-Sthana just

below the Sahasraara chakra is responsible for the five senses, dreams and hallucinations.

The secrecy surrounding the various aspects of the Kundalini and the societal norm of 'relativism' proved to be the two major impediments in any scientific exploration. Also, modern science has not accepted the possible effects of mantra. In fact, the popular misconception about any mantra has been that it is a collection of hymns that produces desired results in a flash. This is perhaps due to the modern quick result orientation towards any aspect of life. To follow the ancient method requires faith in the ancient doctrines and immense patience in perfecting the technique with all its nuances, without any concern of the results.

The standard approach to scientifically establish the ideas discussed earlier has been to have a test group and a normal group. The test group of volunteers practice a mantra or some music or some other specified aspect of a yoga methodology. They are periodically observed. The results are compared with the normal group who do not practice anything. This approach is time consuming and the results are more often than not individualistic. Moreover, these results could readily be dubbed as empirical.

Major advances in computing and mathematics introduced for reconstructing tomographic data obtained by non-invasive imaging have facilitated the study of structure, function and structure-

**Table 1:** The Chakras and the corresponding gland, plexus and the psychological effects when the Kundalini is activated

The Chakra	The Gland	The Plexus	Psychological Effect
Muladhaara Chakra	Adrenals	Sacral Plexus	Divinity, Naturalness, Valour, Yoga
Swadhisthana Chakra	Gonads	Prostatic Plexus	Credulity, Suspicion, Disdain, Delusion (Consciousness), False knowledge, Pitilessness
Manipura Chakra	Pancreas Gland	Epigastric Plexus	Shame, Treachery, Jealousy, Desire, Supineness, Sadness, Worldliness, Ignorance, Aversion or Disgust, Fear
Anaahaata Chakra	Thymus Gland	Cardiac Plexus	Hope, Care or Anxiety, Endeavour, Mineness (possessiveness), Arrogance or Hippocracy, Sense of Langour, Egoism or self-conceit, Discrimination, Covetousness, Duplicity, Indecision, Regret
Visuddhi Chakra	Thyroid Gland	Laryngeal or Pharyngeal Plexus	The seven subtle tones (Nisada, Risabha, Gandhara, Sadj, Madhyama, Dhaivata, Panchama), Six bijas, venom and nectar
Aajna Chakra	Pituitary Gland	Cavernous Plexus	The three gunas : Sattva - signifies purity and fineness Rajas - signifies activity Tamas - signifies stolidity and resistance
Sahasraara Chakra	Pineal Gland		Mercy, Gentleness, Patience, Composure, Dispassion, Constancy, Prosperity, Cheerfulness, Thrill, Humility, Meditativeness, Quietude, Gravity, Effort, Emotionlessness, Magnanimity

function of the human brain. Functional imaging provides information about the synaptic activity, brain anatomy and chemical or neurochemical information about the grey matter. Functional neuroimaging techniques describe the neural activity associated with some physiological, cognitive or pathological state of interest. Positron Emission Tomography (PET) and Single Photon Emission Tomography (SPECT) use radiotracers. There are magnetic resonance methods too.

The cognitive aspects of brain functioning that are relevant for this article [3] depend on self-reporting by the subject. The scientific data thus obtained is often classified as "soft". Introspection has been in vogue for at least a century to identify consistent patterns of local brain activation during defined mental activity. PET scans provide objective and "hard" measurements for investigation of thought, consciousness, emotion and perhaps the psychic powers discussed in this article. The body potentials are not separately recorded. Only their cumulative effect is recorded.

The body potentials have to be measured separately and the correlations with the measured facets need to be established separately. Also only the yogis who gained sufficient control on the Kundalini can be studied for the demonstrable psychic powers. To establish that everyone is capable of attaining the psychic powers is the tougher challenge. In typical human beings the specific psychic power may be ephemeral, pure chance and on a limited scale. 'Brain Models' appear to be a pragmatic alternative to aid the measurement and study of the psychic powers. However, the results obtained are both aided and limited by the very little concrete facts available about the working brain.

*"There is nothing new to be discovered in physics now. All that remains is more and more precise measurement."*  
- Lord Kelvin

The yogic experiences often transcend the current notions of physical realism and warrant a new science with qualitative number theory.

### Conclusions

It is heartening to note that Indic scriptures and the valuable knowledge about the transpersonal behaviour enshrined in them is being examined by the scientific community of the world. Only the Indic

scriptures have dealt with authority these human phenomena wholistically, comprehensively and purposefully. This article is an attempt to re-interpret the often outlandish descriptions of the yogic experiences and psychic powers so that they appeal to a scientific mind.

The notion of the cosmic context of human behaviour that is unique to all the yogic practices prescribed in the indic sources appears to suggest that life is much more than a mere chemical. The shaping up of the re-birth of human being is thus governed by the cosmic context immediately after life begins in the mother's womb. The cosmic context is defined by the 'astral image' of this to be born human being that is eternal existing somewhere in the universes. This astral image is the cumulative collection of the vasanas and samskaras of the earlier births of this human being taking shape in the womb.

A deeper study is perforce multi-disciplinary and any "hard" measurements warrant expensive equipment to be made accessible. Some brain models on the web are providing good starting points. Preliminary results in the area of yogic practices such as pranayama are just trickling in. Music therapy has not yet established its credentials emphatically. The author is pursuing further research in the area of 'psychological acoustics' in relation to the Kundalini yoga to provide at least a preliminary base for advanced scientific research.

### References

1. Arthur Avalon. The Serpent Power, Ganesh and Co., Madras, 1964.
2. Erwin Schroedinger. Mind and Matter, Cambridge University Press, London, 1959.
3. Frackowiak RSJ, The Working Brain - Some Insights from Functional Neuroimaging, Report of T S Srinivasan Department of Clinical Neurology and Research, 2001 Feb;16(1):2-16.
4. Gardner Murphy and Lois B Murphy. Asian Psychology, Basic Books Inc., New York, 1968.
5. George Feuerstein. Encyclopedic Dictionary of Yoga, Unwin Paperbacks, UK, 1990.
6. Gopal TV. Hrishikesa: Krishna - A natural evolution, Universal Publishers, USA, 2000.
7. B Viswanathan, S Ram Mohan, Gopal T V and K Ramanakumar. Mahaperiyava Commemorative Volume on Facets of Consciousness, Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya,

- Enathur, 2007.*
8. Gopi Krishna. Kundalini - The Secret of Yoga, Kundalini Research and Publication Trust, New Delhi, 1978.
  9. Harvey P Alper. Understanding Mantras, Motilal Banarasidass Publishers, New Delhi, 1991.
  10. Henry Gray. Gray's Anatomy, Magpie Books, London, 1993.
  11. Leadbeater C W. The Chakras - A Monograph, The Theosophical Publishing House, Madras, 1927.
  12. Pandit Usharbudh Arya. Philosophy of Hatha Yoga, The Himalayan International Institute of Yoga Science and Philosophy, USA, 1985.
  13. Rai Bahadur Srisa Chandra Vasu. The Siva Samhita, Oriental Books Reprint Corporation, New Delhi, 1975.
  14. Sri Vidyaprakasaanandagiri Swami. Yogavaasistha Ratnakaramu, Sri Sukabrahma Ashramamu, Sri Kaalahasthi, 1995.
  15. Srinivasa Rao G. Kundalini-The Spiritual Unfoldment (Mantra, Yantra and Tantra), Pune, 1986.
  16. Swami Sivananda. Spiritual Experiences, The Divine Life Society, Himalayas, 1969.
  17. Swami Sivananda. Yoga-Kundalini Upanishad, Himalayas, 1959.
  18. Varadachari V. Psychic Research, Occultism and Yoga, The Theosophical Publishing House, 1970.
  19. Waxman G Stephen and Jack deGroot. Correlative Neuroanatomy, Prentice Hall International Inc., 1995.
  20. Zaehner RC. Hindu and Muslim Mysticism, University of London, The Athlone Press, 1960.
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