

Research Article

**'Chitta', "The Mind-stuff" as a Cognitive Apparatus:  
Model of mind and process of cognition as in  
Yogasutra of Patanjali**

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**ABSTRACT**

**Background and Objectives:** Medical sciences have developed tremendously but yet it has to understand the brain, mind, consciousness and cognition process. In this article, authors have made an attempt to present a process of cognition with a model of mind explained in yoga sutra of Patanjali.

**Material and Methods:** Understanding the mind with the modern scientific tools is often difficult. Here an attempt has been made to understand mind with the help of various literature in yoga especially in yoga sutra of patanjali, a valid text of yoga. Hermeneutical approach, a method used in qualitative method of inquiry is used for this study. Reading, re-reading the texts and finding the meaning out of the text is the process used.

**Results:** A model of mind has been proposed as finding of the study. This model of mind has a 'chitta' (Mind stuff) as a cognitive apparatus and important component for cognition. 'Chitta' interacts with the external manifested world (Prakriti). 'Chitta' has Mana, Buddhi and Ego as Antakahrana (internal organ) and 'Indriyas' (Five Gyanendriyas and Five Karmaindriyas) as external organ. This concept of mind and cognition works for the plane of 'chitta-vritti' state where vrittis are the external world. But YSP also talks about next plane of cognition which is beyond the scope of this study.

**Conclusion:** A cognitive model explaining the concept of mind forms a major finding of this research. This finding may initiate future researches in the field of understanding the mental processing and acts as links between ancient wisdom of yoga and modern concept on mind and cognition and how they can complement each other. This model of concept of mind can also be used as concept for psychological counseling and psychological therapy.

**Keywords:** Yoga, Cognition, cognitive apparatus, Mind

## INRODUCTION

With the development of medical science, we have conquered most of the infectious diseases and at the verge of winning HIV AIDS [1]. The health problem of today's world is due to lifestyles of people and the stresses they take. Most of the psychologist and Psychiatry doctors are compelled to treat their patient with some existing theories which are yet not convincing. Most of the brain and mind scientist are working to understand the mind, cognition process. Searle, one of the greatest scholars in this field takes consciousness as mind and asserts that we don't have many theory of consciousness. He also claimed that because we do not have an adequate neurobiological theory of consciousness, and there are a rather large number of false claims made about it so consciousness is something as scandal [2].

The information processing approach to cognition is not yet clear. Medical books including physiology and anatomy do not talk much about mind, cognition and cognitive process and talks vaguely about it as 'higher function of brain'. So, authors have to take the help of philosophical texts to understand it. One of the philosophical texts that talk much about mind is Yoga-sutra of Patanjali. So, this

research concentrates on how this primary text of yoga (yoga system) deals with the question of Cognition, mind and cognitive process.

## MATERIAL AND METHODS

Methodology includes the philosophy and strategy of the research. It is the way in which researcher approaches the problem, plan the research process and try to answer it [3]. This includes the whole research design and the philosophical paradigm on which researcher wants to carry out the research.

**Research design:** This study will be based on qualitative research design, using hermeneutics as method. This study is concerned with the interpretation of 'mind' and 'cognition' in yoga sutra of patanjali. In order to find the meaning of mind and cognition and process of cognition according to Patanjali yoga-sutra, author has to go through the interpretations and discussion made of yoga sutra of patanjali by different proponents. So, this research is under interpretative paradigm. Such work is only possible through qualitative research methods and the best approach, would have been Hermeneutical approach. Frazier (2008

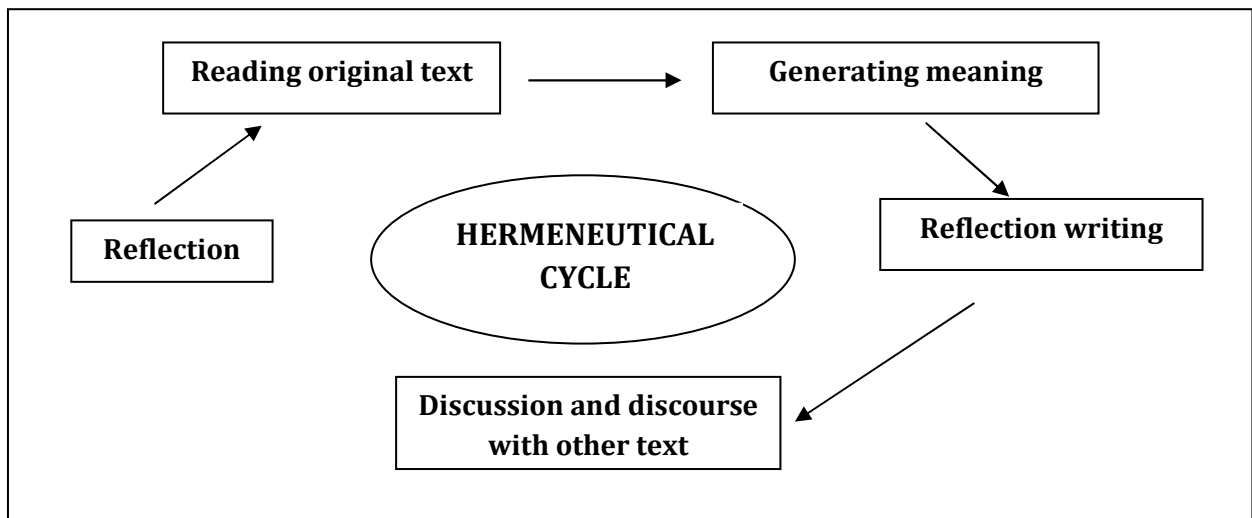


Figure 1: Hermeneutical cycle

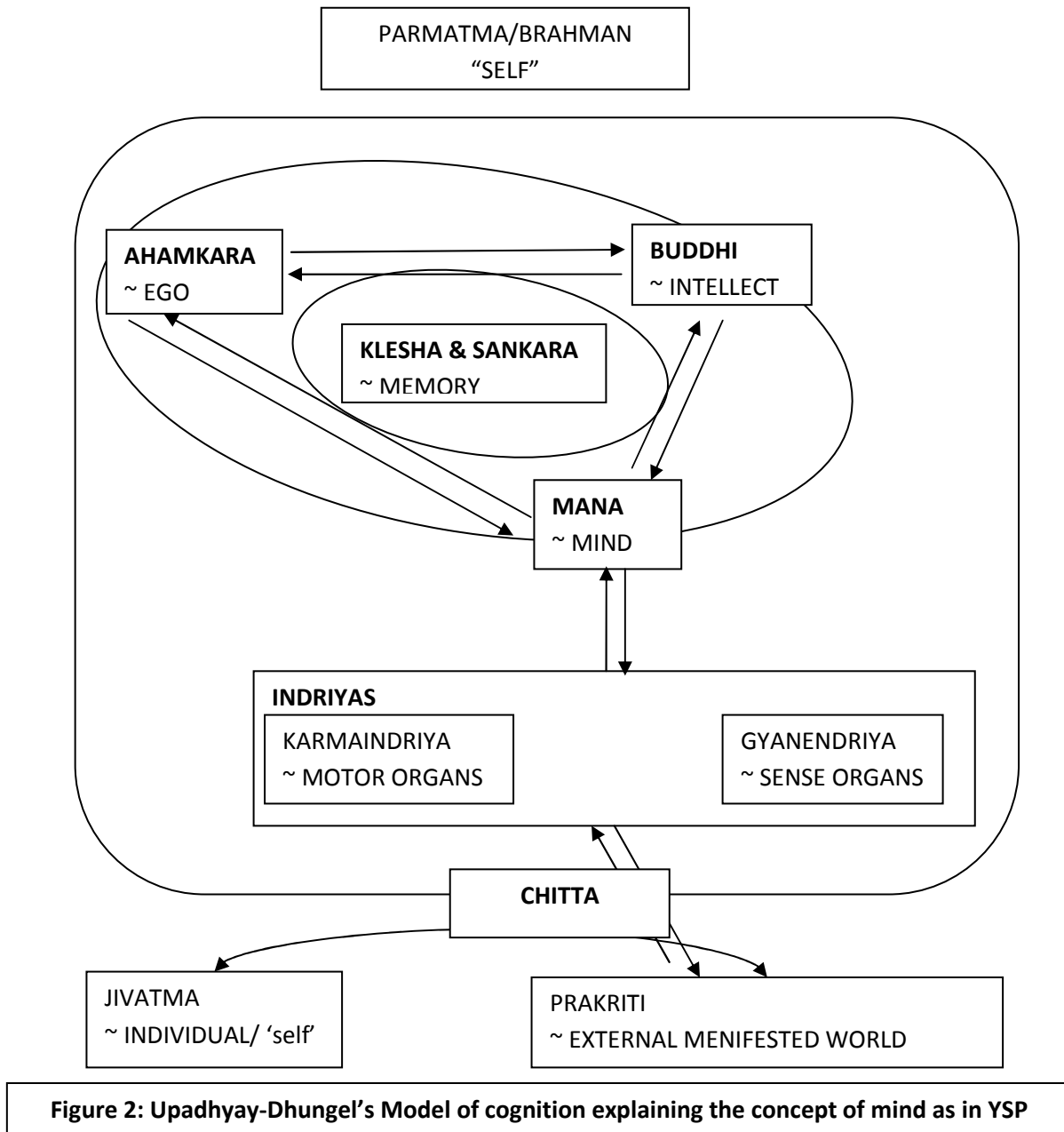
& 2010) suggested, Hermenutics as the best approach to explore and analyze the Sanskrit literature and hindu-scriptures [4, 5]. Thus qualitative analysis using Hermeneutical circle will be used to explain the meaning of mind and cognition from the study.

Three translation and commentaries of yoga sutra of patanjali viz. of YSP by Saugata

Bhaduri, Swami Vivekananda and IK Taimni [6, 7, 8] were the research field for the researcher- as hermeneutical approach was chosen as an inquiry process. However, other works were also consulted to enrich the understandings.

## RESULTS

While researching the words '*Chitta*', Authors



**Figure 2: Upadhyay-Dhungel's Model of cognition explaining the concept of mind as in YSP**

explore the two states of consciousness that yoga-sutras of Patanjali has discussed or brought forward, the first one, the 'chitta-vritti' state and next, the 'chitta-vritti-nirodha' state. In this article, we focus on chitta-vritti state. A cognitive model explaining the concept of mind forms a major finding of this research (Figure 2).

## DISCUSSION

Ganong, a renowned physiologist in his book define 'cognition' as awareness of the sensation and usually awareness of its cause [9]. It's a biological definition and goes with Piaget theory of cognition [10]. This is a point where physiology meets psychology. Clark (1998) believes that cognitive Science is in some sense the science of the mind [11]. This is the point where the psychology meets with philosophy. This paper is an initiation of finding the blend between/among Physiology, Psychology and Philosophy.

In an attempt in search of mind through various literature, authors found that the concept called "*Chitta*" in yoga sutra of Patanjali is very close to the term 'mind', 'brain' and 'function of brain'. So Authors focused the research on the term "*Chitta*" of YSP to find the concept of mind and cognition incorporated in it. This term 'Chitta' is very closely related to the 'mind' of modern psychology however it has a more comprehensive significance and field for functioning. Usually 'Chitta' is supposed to be equivalent to 'mind' and is interchangeably used in commentaries of yogasutras [12]. Several scholars has described "*Chitta*" as mind or mental state [12 - 16]. This paper totally disagrees on this but it goes with the understanding of Rao [17]. According to him; like 'mana', "*Chitta*" is also a cognizing

apparatus but these are two distinct identities. He has explained 'mana' as 'the initial cognizing apparatus which receives perceptual data' which goes along very well with our model. 'Chitta' has 'Mana', 'Buddhi' and 'Ahamkara' as internal organ (Antahkahrana) and Indriyas as external. Indriyas are door to chitta. Indriyas has no use till chitta responds to the input gyanendriya give and karmaindriya is under the influence of chitta again. Balsubramnian (2011) has also mentioned about antahkarana, the internal organ. He has taken internal organ or antahkaran as the mind, which according to him is the first entity with which consciousness comes into relation. The association of consciousness (self) with the internal organ gives rise to the emergence of the "I" or ego [18].

*Indriyas* are the organs (sensory and motor organs) of our body, Mind can be an English name given to '*Mana*' [if we give the name 'mind stuff' to '*Chitta*'], '*Buddhi*' means intellect or intelligence and *Ahamkara* means I-am-ness or ego. In simpler form we can say, Mind ('*Mana*'), together with the discriminative faculty ('*Buddhi*'), and the egoism (*Ahamkara*), form the group called *Antahkarana* (the internal instrument) [6, 7, 8, 19]. For cognition to occur, 'Indriyas' (organs) has to have interaction with the '*Antahkarana*' (the internal instrument). Yoga identifies them as constituent parts of '*Chitta*' of human.

The model of mind presented in this study has a 'Chitta' (Mind stuff) as a cognitive apparatus and is important component for cognition. Chitta is a complex identity with lots of components. 'Chitta' interacts with the external manifested world 'the Prakriti'. Chitta has internal organs and external organs. Antahkahrana is the internal organ

and Indriyas are the external organs. The Antahkarana, the internal organ has 3 components 'Mana', 'Buddhi' and 'Ahamkara'. Indriyas, the external organ has two components Gyanendriyas and Karmaindriyas. There are Five Gyanendriyas (viz. eye, ear, nose, tongue (taste), skin) and Five Karmaindriyas (Hand, feet, tongue (speech), genitalia,) as external organ. Some scholar has conceptualized 'mana' as the eleventh organs too [19]. This concept of mind and cognition works for the plane of 'chitta-vritti' state where vrittis are external world. All the knowledge of the manifested world, the prakriti is through the chitta and If the interaction of all the components is ceased, then the jivatma the self will attain the state called 'Chitta -vritti-nirodha' which means the real yoga between jivatma, the self or individual and Parmatma, THE SELF or Brahman. Similar concept has been presented by other scholar too. They have present Brahman or true self as *purusa* (pure consciousness) [20, 21].

### Implication in therapy and mental health problems

Arvinda prabhu & Bhat, 2013 in their article highlights the importance of the eastern views of mind medical sciences especially to psychiatrists and psychologist by forwarding

their ideas on mind. They believe that modern psychologist and psychiatrists have tendency of labeling anything as abnormal because they are not completely understood. Most psychotherapy are, to some extent based on imposing one's personal views on the patient to the extent that the person's thought process, emotions or behavior does not conform to the norms of the society he is living in and sometimes great many thinkers, artists have been victims of violence on them just because they thought differently, created works of art, which were not to the liking of some sections of society [16]. Similarly, Professor Ratna Sharma from All India Institute of Medical Sciences quotes Bernie Siegal:

*"Science teaches us that we must see in order to believe, but we must also believe in order to see. We must be receptive to possibilities that science has not yet grasped, or we will miss them" [22].*

This presentation of Patanjali's Yogsutra concepts of mind brings this material in an updated way to make it more relevant for mainstream psychology. It is additional material relative to the way that the West views the mind, and it is exactly that point which makes it a credible contemplation for newer insights about the human mind. Taking

**Table 1: Showing the close English meaning of several terms used in Yoga sutra of Patanjali (Sanskrit) according to Upadhyay-Dhungel, 2014.**

<b>Chitta</b>	Mind stuff (complex)	<b>Gyanendriya</b>	Sensory organs
<b>Mana</b>	Mind	<b>Karmaindriya</b>	Motor organs
<b>Buddhi</b>	Intellect	<b>Smriti</b>	Memory (of past events)
<b>Ahamkara</b>	Ego	<b>Vritti</b>	Fluctuation of Mind-stuff
<b>Antahkarana</b>	Internal organ	<b>Nirodha</b>	Cessation/haltage
<b>Indriya</b>	Organs (outer/external)	<b>Prakriti</b>	External manifested world
<b>Klesha</b>	Impinges in mind-stuff (memory, more surfacial than <i>sanskara</i> )	<b>Sanskara</b>	Impinges in mind-stuff (memory, more subtler than <i>klesha</i> )

a view of the mind through this lens of Eastern psychology of the Yogsutra can make it possible to develop more holistic interventions and therapies for healing in this millennium of mind-body medicine.

Considering society's increasing need for psychological interventions due to rapid growth of competition and stresses, it is very appropriate to explore ancient systems of understanding the mind, especially those containing capabilities and methods for removing pain and suffering and helping person with psychological problems. This study can also be useful in order to draw attention to the new ways of perception of some growing psycho-physiological health problems; can also be connected to some of the contemporary psychological disorders; however some more in-depth researches on these are needed especially implication of this model has to be worked out.

## CONCLUSION

A cognitive model explaining the concept of mind forms a major finding of this research. This finding may initiate future researches in the field of understanding the mental processing and acts as links between ancient wisdom of yoga and modern concept on mind and cognition and how they can complement each other. This model of concept of mind can also be used as concept for psychological counseling and psychological therapy. Further researches elaborating this model to make it more practical and focusing on implication aspects is important.

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## REFERENCES

1. Upadhyay-Dhungel K. [Yoga for healthy life] In: Subedi P (Eds). Yogaayurveda Yatra. Patanjali Ayurveda Kendra, Nepal; 2069 BS. Pp 98-105.
2. Searle J. Theory of mind and Darwin's legacy. PNAS, 2013; 110 (suppl. 2): 10343-48
3. Taylor, S. J., & Bogdan, R. (1998). *Introduction to qualitative research methods* (3rd ed.). New York: John Wiley.
4. Frazier, J. (2008). Hermeneutics in Hindu studies. *The Journal of Hindu Studies*, 1 (1-2), 3-10.
5. Frazier, J. (2010). Arts and aesthetics in Hindu studies. *The Journal of Hindu Studies*, 3(1), 1-11.
6. Bhaduri, S. (2000). *Yoga sutra of Patnjali*. New Delhi, India: DK printworld.
7. Swami Vivekananda. (2007). *Conquering the Internal Nature: Raja Yoga*. Kolkata, India: Advaita Ashrama, Publication Department.
8. Taimni, I. K. (n.d.). *The science of yoga: the yoga-sutras of Patnjali in Sanskrit with transliteration in roman, translation and commentary in English*. Adyar, Chennai: The theosophical publishing house.
9. Ganong, W. (2005). *Review of Medical Physiology*. Mc graw Hill; Lange medical publication. (W. Ganong, Ed.) United States of America: McGraw-Hill Companies Inc.
10. Lutz, S., & Huitt, W. (2004). Connecting cognitive development and constructivism: Implications from theory for instruction and assessment. *Constructivism in the Human Sciences*, 9(1), 67-90.
11. Clark, A. Embodiment and the Philosophy of Mind" in A. O'Hear (ed). Current issues in philosophy of mind: Royal institute of philosophy 1998; Suppl 43: 35-52.
12. Yoga mandir. (2012). *Citta- Consiousness*. In : *Light on Life by BKS Iyenger*. Canberra, Australia: Author. Retrived from [www.yogamandir.com.au](http://www.yogamandir.com.au)
13. Woods, JH. (1927). *The yoga sutras of Patanjali*. Mineola, NY: Dover

14. Rao, K. (2002). *Consciousness studies: Cross-cultural prospective*. Jefferson, NC. McFarland.
15. Yati, NC (2009). *Living the science of harmonious union*. New Delhi: Printworks.
16. Aravinda Prabhu HR., Bhat PS Mind and consciousness in yoga – Vedanta: A comparative analysis with western psychological concepts. *Indian J Psychiatry*. Jan 2013; 55(Suppl 2): S182–S186. doi: 10.4103/0019-5545.105524
17. Rao, AV. (2002). Mind in Indian philosophy. *Indian Journal of Psychiatry, 44(4)*, 315-325.
18. Balasubramanian R. Consciousness, Cognition and the Cognitive Apparatus in the Vedānta Tradition. *Mens Sana Monogr*. 2011; 9(1): 54–78. doi: 10.4103/0973-1229.77427
19. Joshi, B.C. (1987). Neurology in Ancient India: Ajna Chakra- A Physiological reality. *Indian Journal of History of Science, 22 (4)*, 292-315.
20. Bijlani, R. L. (2004). *Understanding Medical Physiology*. New Delhi, India: Jaypee Brothers Medical publishers, 3<sup>rd</sup> edition, pp. 871-77.
21. Bailey, S R. (1997). *Hatha Yoga as a Practice of Embodiment*. Los Angeles: University of California, LA.
22. Sharma, R. (2006). Meditation and Mental Well being. *Indian Journal of Physiology and Pharmacology, 50 (3)*, 205-214.