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## Doctrine of four stages of Atman and human physiology

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### Abstract

This research paper is based on one of the important text of Indian Philosophy known as Māndūkyopaniṣad. According to Māndūkyopaniṣad there are 4 stages of Ātman. This paper would deal with the Physiological explanation of these four stages of Ātman. With the help of this research paper I have tried to explain ancient Indian Advaita Philosophy in the light of modern medical science.

**Key words:** Māndūkyopaniṣad, Ātman, advaita, jāgrat avasthā, svapnāvasthā, suṣupti, turiya, electroencephalograph (EEG), Beta wave, alpha waves, delta waves, theta waves, non REM sleep, REM sleep

### Introduction

India has been one of the world's most advanced civilizations since ancient times. The culmination of its advancement is still seen in the remains of Harappa. After the Harappan era, India enters into vedic era. Ved, upniṣads etc. are the symbols of intellectual excellence of this period. In this priceless treasure of Vedic literature, we get the origin of almost all the genres of knowledge. Philosophy is one of them.

In vedas we find the seeds of Indian Philosophy in scattered form, but mainly the Upanishads are said to be the origin of Indian philosophy. In later period Indian Philosophy basically divided into 2 parts-

1. Orthodox
2. Heterodox

Orthodox are those who believe in vedas and for reference they quote vedas and Upniṣads. Advaita Vedanta is one of the Orthodox systems in India. Gaudapāda is said to be the founder of this system but Śankaracharya took it to the apex. The basic concept of this Philosophy is four stages of Atman. This concept was firstly introduced in Māndūkyopaniṣad. After that Gaudapāda explained it.

### According to māndūkyakārikā<sup>[1]</sup> three stages of Atman are as follows

- **Jāgrat Avasthā:** This stage is awaking stage in which Atman with the help of all senses interact with the outer world<sup>[2]</sup> and reveals external objects. In Advaita Vedanta this is the Place of vaiśvānara<sup>[3]</sup>.
- **Svapnāvasthā:** This is the stage of dreams. According to māndūkyopaniṣad it is the place of Taijas<sup>[4]</sup>. Whatever a person sees in the external world, that appears as a reality in the dream state.

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<sup>1</sup> Mandukyakarika 1.1

<sup>2</sup> Mandukyopanishad 1.3

<sup>3</sup> जागरितस्थानो बहिष्प्रज्ञः सप्ताङ्ग एकोनविंशतिमुखः स्थूलभुग्वेश्वानरः प्रथमः पादः । माण्डूक्योपनिषद् 1

<sup>4</sup> स्वप्नस्थानोऽन्तःप्रज्ञः सप्ताङ्ग एकोनविंशतिमुखः प्रविविक्तभुक्तैजसो द्वितीयः पादः । माण्डूक्योपनिषद् 4

- Suṣupti Avasthā- Third stage is the stage of deep sleep, which is known as suṣupti. This is the place of prāñña. According to Vedanta philosophy when mind rests in puritata nādi, this stage occurs. In this situation a person does not desire any object and does not see any dream. This is the stage of full bliss <sup>[5]</sup>.

There is one another Fourth stage which is called Turīya Avastha. It is not external world, not the internal world and not the deep sleep. It is unseen by sense organs. No one can describe this stage. In this stage only a person can feel non duality <sup>[6]</sup>.

These four stages of Ataman are basically four stages of mind.

Here question arises whether our brain really works like this or it is only an imagination of our ancestors.

Very similar types of mental states are also discussed in modern medical science. According to human Physiology there are four types of electrical waves working in our brain, which can be observed with the help of a device known as electroencephalograph (EEG) <sup>[7]</sup>. These waves are as follows <sup>[8]</sup>.

### Beta wave

Beta waves appear in posterior region of brain having frequency of 15 to 30 hz and amplitude of 5- 10 microvolt. These waves are basically seen in a wake adult person when eyes are open.

### 1. Alpha waves-

These waves are seen in Parito- occipital region of brain. Now frequency decreases to 8- 13 hz and amplitude increases 50 to 100 microvolts. When a normal adult is awake and eyes are closed, he is in a relaxed condition. In this situation alpha waves are dominant. On opening of eyes alpha waves disappear.

### 2. Theta waves <sup>[9]</sup>

These waves having large amplitude and frequency decrease up to 4-7 hz. These waves are generally seen in children. Sometimes it can also be seen during moderate sleep. In meditation majorly theta and alpha waves are seen together.

### 3. Delta waves

In these waves frequency decrease upto 0.5 to 4 hz and amplitude majorly increases upto 20 to 200 hz. It is the stage of deep sleep.

According to these waves there are 2 types of sleep Non REM Sleep <sup>[10]</sup> (Non rapid eye movement sleep)- This sleep is also known as slow wave sleep. This distinction is based on the movement of the eyeballs. There are four stages inside this sleep.

<sup>5</sup> यत्रा सुप्तो न कश्चन कामं कामयते न कश्चन स्वप्नं पश्यति तत्सुषुप्तम् । सुषुप्तस्थान एकीभूतः प्रज्ञानघन एवानन्दमयो ह्यानन्दभुक्चेतोमुखः प्राज्ञस्तृतीयः पादः ॥ मा० उ० ५

<sup>6</sup> नान्तःप्रज्ञं न बहिःप्रज्ञं नोभयतःप्रज्ञं न प्रज्ञानघनं न प्रज्ञं नाप्रज्ञम् ।

अदृष्टमव्यवहार्यमग्राह्यमलक्षणमचिन्त्यमव्यपदेश्यमेकात्मप्रत्ययसारं प्रपञ्चोपशमं शान्तं शिवमद्वैतं चतुर्थं मन्यन्ते । स आत्मा स विज्ञेयः । माण्डूक्योपनिषद् । ॥ १७ ॥

<sup>7</sup> Medical Physiology, G.K Pal, page no. 1115

<sup>8</sup> Ganong's Review of Medical Physiology, ed. 23, page no 233-234

<sup>9</sup> Medical Physiology, G.K Pal page no. 1116

<sup>10</sup> Medical Physiology, page no. 1117

### (1) Stage 1

When a person go to sleep from awaken stage, first of all he feels drowsiness. Light sleep begins with this, and alpha wave start working instead of beta wave.

### (2) Stage 2

In this stage of sleep alpha waves increase slightly and person get into normal sleep.

### (3) Stage 3

This is the stage of moderate deep sleep where alpha waves increases and frequency decreases slightly. This is the first stage of deep sleep. Bad dream which are not remembered to us usually arises during these initial stages of NREM sleep.

### (4) Stage 4

This is the stage of deep sleep. In this stage delta rhythms dominates others. Scientists have recorded lowest frequency and largest amplitude in this stage. Our heart rate, blood pressure, body temperature and respiration also gets slow in this stage of sleep.

### REM Sleep – (Rapid eye movement sleep) <sup>[11]</sup>

The characteristics of REM sleep are Rapid eye movement when eyelids are closed.

This sleep is also known as paradoxical sleep. After NREM sleep suddenly new pattern of waves starts working. This wave activity is similar to fast beta rhythm as seen in awaken stage. Though it is difficult to wake up a sleeping person but at this time person is likely to wake up spontaneously. This sleep is also known as dream sleep because the dreams which we remember after waking up are generally seen during REM sleep. During REM sleep blood pressure increases, respiration is rapid and irregular and body temperature is back to normal. When we compare all 4 states of Advaita Vedanta to human Physiology, we find that jagrat avastha is accepted by everyone. This stage is open eye stage, when our eyelids are not closed. We interact with outer world through our senses. Our all senses are activated in this stage and our respiration is normal. In this stage posterior region of our brain works, and beta waves are activated in our brain. The frequency is very high but amplitude is very low.

The first stage of NREM sleep is like a bridge between jagrat and svapnavastha, because in this stage person is not sleeping or dreaming but not awakens too.

Second stage is Svapnavastha in which our eyelids are closed.. Outer senses do not work in this stage, but from the collected material during Awaken stage, mind creates his own world of dream. If we compare this stage with the modern physiology we find that swapnavastha is divided into two parts according to good and bad dreams. One is under NREM sleep and another is under REM sleep. In first part we can include second and third stages of NREM sleep, because usually bad dreams occur in these stages. Normally a person does not remember these dreams but if he wakes up after this stage he may feel frightened.

Whole REM sleep can be covered under the second part of swapnavastha. Dreams seen in this stage can be remembered easily. We usually see good dreams in this sleep.

Third stage is sushupti avastha. According to physiology this is the fourth stage of NREM sleep in which only delta waves are present with lowest frequency and highest Amplitude.

<sup>11</sup> 2<sup>nd</sup> South Asia edition of Medical Physiology, Page No - 849-850

delta waves cover whole brain during this stage of sleep. In this stage it is very difficult to wake up a person. It is known as dreamless sleep.

Turiya avastha is 4<sup>th</sup> stage of Atman. Description of this fourth stage is given by the negation of all other stages. turiya is not related to external world, not related to internal world. We can't sense it by any organ. It is unthinkable real nature of consciousness.

In human physiology there is one wave left which is known as theta wave. This wave normally arises in infants, but it also work in meditation. In this state frequency and amplitude both are higher than sushupti avastha. But we can't compare this mental state with turiyavastha because turiyavastha is not meditation. May be we can achieve turiyavastha through meditation. In this situation meditation will only be a path to get that stage.

So we don't get any mental state similar to this stage of atman. Hence it can be said that this condition of the brain still requires scientific research.

Normal human being completes one sleep cycle in 90 minutes<sup>12</sup>, which consist both NREM and REM sleep. Every night three to four sleep cycles are necessary for a human being. Sleep starts with stages of NREM sleep and before completion of one cycle we enter into REM sleep. Different age group spent different amount of time in different stages of sleep. For example old people don't spend much time in NREM stage 4 and REM sleep. One another thing is also very clear through this explanation that according to science, in every cycle of sleep we get into sushupti avastha however we don't remember it. Our physical and mental development also occurs in this stage of sleep only.

Thus, it can be said that interpretation of mental stages explained in ancient Indian Advaita Vedanta Philosophy is possible in modern medical science, but we are only able to explain three stages of atman. Basically Indian philosophy entirely based on hypothesis and logic, whereas medical science reaches any decision through experiments. So at a level only we can establish a relationship between science and Indian Philosophy, after that we cannot do any comparison between them due to different subject matter.

## References

1. Nikhilanand, Māndūkya Upaniṣad, Advaita Ashram, 2006.
2. Ganong, Review of Medical Physiology, Mc. Graw hill Medical, 2010.
3. Māndūkyaopaniṣad, Ed. 23 Geeta Press Gorakhpur, 2010.
4. Guyton & Hall. Medical Physiology, Second South Asia Edition, Elsevier, 2016.
5. Pal GK. Comprehensive Textbook of Medical Physiology, vol-2, JaypeeThe Health Science Publisher, 2017.

<sup>12</sup> <https://en.wikipedia.org/wiki/Sleep#Cycles>