

Garbhopeniṣad: Exploring The Intersection Of Science, Physiology, And Spirituality In The Indian Knowledge Tradition

Dr. Rajavi Oza

Asst. Professor,
Dept Of Sanskrit,
St. Xavier's College,
Ahmedabad-India.

Dr. Rucha Brahmhatt

Head, Dept Of English,
Samarpan Arts & Commerce College,
Gandhinagar,
Gujarat-India

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The womb wisdom, *Garbhopeniṣad* is a brief but a very important treatise providing us with an opportunity to have a peep into the science of embryology, physiology and spirituality of the ancient India. In modern times, chronologically, in order to distinguish it from the classical or principal *Upaniṣads*, *Garbhopeniṣad* is one and the new or as K.V. Gajendragadkar terms them “Neo-Upaniṣad”¹.

It is a known fact that traditionally every *Upaniṣad*, even if it be a new one, relatively speaking, is attached to one of the four Vedas. Regarding *Garbhopeniṣad*, there are certain doubts in the tradition. Traditionally, the *Muktikā-Upaniṣad-Sangraha* has come down to us. In this *Muktikā-Upaniṣad*, all *Upaniṣads* have been assigned to one of the Vedas and accordingly the *Garbhopeniṣad* belongs to *Kṛṣṇa Yajurveda*². However, the great Vaiṣṇavite āchārya Ramanuja quotes the *Garbhopeniṣad* in his *Śribhaṣya* (i.e. commentary on the *Brahmasūtra*) as belonging to the *Atharvaveda*³.

Many modern scholars also consider the *Garbhopeniṣad* as belonging to the *Atharvaveda*. One of the greatest scholars of the *Upaniṣadic* lore of modern times, Prof. Paul Deussen has translated this *Upaniṣad* in the group of *Upaniṣads* belonging to the *Atharvaveda*. Prof. Duessen has also propounded a theory regarding the *Ātharvan Upaniṣads*. First of all, the *Upaniṣads* themselves refer their doctrines to the alleged founders of the *Atharvaveda* Śākhās Śaunaka and Pippalāda and here the *Garbhopeniṣad* refers to the पैपलादं मोक्षशास्त्रं – *Pippalāda's Doctrine of Salvation*⁴ in the last sentence of this *Upaniṣad*⁵.

Prof. Deussen further states that one should see in this little more than arbitrary attachment to well-known names of antiquity⁶. Prof. Deussen argues that in the *Atharva Upaniṣads*, we must not expect to find the dogmatic textbooks of the definite Vedic Schools⁷. As Ātman doctrine was elucidated outside of the older Vedic śākhās, they got admitted into the *Atharvaveda Samhitā*, as they were too late compositions for the older *Samhitās* to admit them. Hence, the *Atharvaveda* opened its arms to the late born or rejected children of the spirit of *ātman* research⁸. In this way *Garbhopeniṣad* also must have got itself attached to the *Atharvaveda*. Prof. Patric Olivelle further elaborated this argument on this line by reasoning that, “Because of the foundational nature of the *Upaniṣads*, later Hindu-sects and theologies sought to find in them the revealed basis of and the ultimate justification for their doctrines and practices...sometimes they composed new *Upaniṣads*. Given the lack of an acknowledged and closed canon of the Vedic corpus, these new texts were able to gain recognition, at least within the sects in which they were composed, as authentic Vedic documents having the same sanctity and authority as other Vedic book”⁹.

Further, as the name of the *Upaniṣad* indicates, it contains all sorts of views on the elements and the parts of human body and describes particularly the development of an embryo in the mother's womb. This content has been mentioned in the verse subjoined to the text of the *Garbhopeniṣad* and which probably does not form the part of the text. To quote the verse:

यद्गर्भोपनिषद्वेद्यं गर्भस्य स्वात्मबोधकम् ।
शरीरापह्वात्सिद्धं स्वमात्रं कलये हरिम् ॥ ¹⁰

Accordingly, Prof. Deussen surmises, this text would have rather belonged to a manual on physiology and medicine than to a collection of the *Upaniṣads* and the designation ‘Pippalāda’s Doctrine of Salvation’ occurring at the end would have very little justification-had it not been for the idea contained in its middle part in the course of the description of the development of the embryo.¹¹

A brief discussion may not be out of place regarding the period of the composition of this *Upaniṣad* along with its group. According to Dr. Subhash Kak, the *Garbhopeniṣad* is ascribed to the Sage Pippalāda, his date may be determined in the Vedic tradition. Pippalāda is also a principal arranger of the *Atharvaveda*; he should be assigned to at least the middle of the second millennium BCE, if the *Rgveda* is to be taken to be no later than 2000 BCE.¹²

On the other hand, some other scholars are not inclined to assign to the *Garbhopeniṣad* such an early date as the *Upaniṣad* is considered to be one of the neo-*Upaniṣads*. Chronologically, the whole *Upaniṣadic* literature can be divided into ancient, late and later *Upaniṣads*. Obviously neo-*Upaniṣads* fall into this category of later *Upaniṣads*. The *Upaniṣadic* period gave rise to a tremendous thought-ferment and consequently intellectual activity in the society which ultimately gave birth to a different school of thoughts. And it appears that the teachers of *Atharvaveda* were at the forefront of this movement and supplied the theoretical support to the thought process and religious consciousness. These neo-*Upaniṣads* belonged to this period in which various religious sects arose. They are post-Vedic, sectarian in character to some extent, and breaking new grounds from the content point of view. They might be contemporary to the epic period, Smṛiti-literature and Purāṇas. So in this flux exact date of any *Upaniṣad* or a group of *Upaniṣads* can never be postulated. Hence, according to Dr. S. G. Desai, “The major creative activity of the *Ātharvādic* teachers of the *Upaniṣad* must have been between 500 BC and 500AD”.¹³

Therefore, the *Garbhopeniṣad* is one of the Vedantic *Upaniṣads* that belongs to the *Atharvaveda* as opined by Prof. Deussen.¹⁴ Hence, relatively speaking, the *Garbhopeniṣad* is a later *Upaniṣad* and among the later one, an ancient one, one may say. And if we take into consideration this factor, it is quite amazing that in those ancient times, the ṛṣi Pippalāda, the visionary of the *Garbhopeniṣad*, had so much to offer to the science of embryology.

The process of conception and giving birth is quite complex and has spurred the thinkers and researchers to delve deeper into the realm of embryology. Since the days of the *Rgveda*, the sages have given some thought to this physiological aspect of conceiving. In the 4-27-1 of the *Rgveda*, the sage in the mother’s womb gives an expression to this thought. The sage says, “As I lay within the womb, to considered all generations of these Gods in order. A hundred iron fortresses confined me but forth I flew with great speed a Falcon”. Even in 10-77-2 also, the sage while lying in the womb of a mother gives expression to a philosophical thought. So the mother’s womb has also become the place of thought-weaving for the ancient seers.

The *Garbhopeniṣad* moves further and delves deeper into the science of embryology. It is absolutely fascinating to compare the thought-process of the *Garbhopeniṣad* to the modern science of embryology. It is also quite pertinent to point out that modern science of embryology has not said the final word on the formation and development of embryo and fetus. Hence, human body continues to intrigue, perplex and confound the modern scientists too. For the modern science the human body continues to hold many unraveled secrets in it.

Like the modern science, the *Garbhopeniṣad* says that an embryo is the result of the union of the germinal and spermatid fluids. This is a great advance in the science of embryology considering those ancient days. *Garbhopeniṣad* says: शुक्रशोणितसंयोगात् आवर्तते गर्भः। (2nd Paragraph). From the union of the semen and blood develop embryo. Here, it may be clarified that शुक्र stands for male semen and the शोणित is meant to be the female vital fluid. The seer-scientist or physiologist of the *Garbhopeniṣad* has something to say regarding the exact relation between these two fluids. According to Spermatist theory, man supplies the seed while woman supplies the soil. But the present *Garbhopeniṣad* thinks that both the parents equally furnish form and material to embryo, as quoted above शुक्रशोणितसंयोगात्. Furthermore, *Garbhopeniṣad* gives a very interesting and perspicuous account of the development of the fetus. Various stages in the development of the fetus are described with almost meticulous details. We are told that during the first night, the embryo assumes the form of a nodule, i.e. of a nucleus like the one formed by flour thrown into water, एकरात्रोषितं कलिलं भवति । (GU 3rd paragraph). After seven days it becomes a bubble, within a fortnight a lump, within a month it becomes hard, after two months originate the parts of foot, in the fourth month ankles, belly and hips, in the fifth the vertebral column, with the sixth mouth, nose, the eyes, the ears, in the seventh embryo is equipped with the soul (jiva), in the eight it is complete in all parts. To quote from the *Garbhopeniṣad*:

सप्तरात्रोषितं बुद्बुदं भवति अर्धमासाभ्यन्तरेण पिण्डो
भवति मासाभ्यन्तरेण कठिनो भवति मासद्वयेन शिरः

सम्पद्यते मासत्रयेण पादप्रवेशो भवति । अथ चतुर्थे मासे
जठरकटिप्रदेशो भवति । पञ्चमे मासे पृष्ठवंशो भवति ।
षष्ठे मासे मुखनासिकाक्षिश्रोत्राणि भवन्ति ।
सप्तमे मासे जीवेन संयुक्तो भवति । अष्टमे मासे सर्वसम्पूर्णो भवति । (GU, 3rd paragraph)

Although this development process may be similar to that of the modern gynecology, and may be differing in many details, but the fundamental point is that the seer-scientist has envisioned the gradual development of the embryo and fetus which is quite astounding.

Some scholars like Dr. K.V. Gajendragadkar has compared this development process of fetus with that of what is called Epigenesis, according to which the embryo arises by a series of successive differentiation from a simple homogeneous mass into a complex heterogeneous being.¹⁵ There is also another theory which postulates that it preexists in the germ so that all organs are formed at once and not successively. It is needless to say that modern embryologists have advocated the theory of Epigenesis which is similar to that of our *Garbhopaniṣad*, and that is what makes the *Garbhopaniṣad* a unique institution to the science of embryology.

Further, there is a very important question how a gender of a to-be-born child is determined. Surprisingly *Garbhopaniṣad* has some interesting observations to make regarding this question. According to this Upaniṣad, a male child is born when the sperm predominates, पितृरेतोऽतिरिक्तात् पुरुषो भवति । (GU 3rdpara) and a female child is born when the germ dominates, मातुः रेतोऽतिरिक्तास्त्रि (GU 3rdpara). If two fluids counterbalance each other, then a neuter child is born उभयोर्बीजतुल्यत्वान्नपुंसको भवति । (GU 3rdpara). The seer-scientist of the *Garbhopaniṣad* further tells us that if the fluid gets divided by the force of the air, twins are born. अन्योन्यवायुपरिपीडितशुक्रद्वैध्याद्द्विधा तनुः स्यात्ततो युग्माः प्रजायन्ते ॥ (GU 3rdpara) According to Dr. Gajendragadkar, this factor of determining the gender of a child to be born is of Democritean theory.¹⁶

In the *Upaniṣad* it is further stated that if a mother or a father is distressed at the time of the copulation, the child to be born becomes blind, lame, hunchback or a dwarf. व्याकुलितमनसोऽन्धाः खड्गाः कुब्जा वामना भवन्ति । (GU 3rdpara)

Significantly a very startling (in the context of the modern science but not in the Indian tradition) statement has been made by the seer-scientist in the *Garbhopaniṣad*. He says that the embryo in the mother's womb remembers its previous birth, and has knowledge of his/her good and bad deeds. This has been very picturesquely expressed in the *Upaniṣad*.

अथ नवमे मासि सर्वलक्षणसम्पूर्णो भवति पूर्वजातीः स्मरति
कृताकृतं च कर्म विभाति शुभाशुभं च कर्म विन्दति ॥ ३ ॥

नानायोनिसहस्राणि दृष्ट्वा चैव ततो मया ।

आहारा विविधा भुक्ताः पीताश्च विविधाः स्तनाः ॥

जातस्यैव मृतस्यैव जन्म चैव पुनः पुनः ।

To quote the translation from the book of Prof. Deussen:

“After I had thousands of times before

Lived in the mother's womb,

I enjoyed many kinds of food,

and drank many a mother's breast.

Born was I, died again

And was continually born anew.”¹⁷

Then when born, what is the situation? The *Garbhopaniṣad* says that, when reaching at the opening of the genital organs, oppressed by the squeezing s/he is hardly born and then touched by the Vaiṣṇava wind (i.e. the wind of the outer world as against the wind of the mother's body) s/he ceases to remember her/his previous births and has no knowledge of anymore of good and bad deeds.

अथ जन्तुः स्त्रीयोनिशतं योनिद्वारि

सम्प्राप्तो यन्तेणापीड्यमानो महता दुःखेन जातमात्रस्तु

वैष्णवेन वायुना संस्पृश्यते तदा न स्मरति जन्ममरणं

न च कर्म शुभाशुभम् ॥ ४ ॥ (GU end of 3rdpara)

Now, as far as this remembrance of the past births is concerned, the modern science has much to investigate before it says anything conclusively as there have appeared a number of instances where the persons have remembered their past births and environment and there is no reason to believe that they are all either inflicting or perpetuating hoax upon the people at large. Whatever may be the position but the *Garbhopaniṣad* has opened up new vistas of research for even modern science of birth and death.

Further, the *Garbhopaniṣad* has offered an account of physiology. At the outset it is necessary to admit here that this account of physiology seems neither scientific nor even systematic. But we may have to concede the research outlook it brings to bear upon the subject. We are told in the *Garbhopaniṣad* that human body is constituted out of the five elements viz. earth, water, fire, air and ether. We are also further told that whatever is hard in the body belongs to the earth, fluids in the body are the result of water, what is warm is fire, what moves about it is wind, and what is hollow is ether. Moreover, they are connected with each of the five in as much as the earth serves it for support, the water for assimilation of food, the fire for illumination, the wind for distribution and ether for providing space. In another way, the ears serve for the perception of the sound, the skin for the touch, the eyes for the seeing, the tongue for tasting and the nose for smelling. Or in another way, the sexual organ serves for enjoyment, the *apāna* (wind) for evacuation, the body perceives with the *Buddhi*, imagines with the *manas* and speaks with the speech. Further, the body is nourished with four kinds of food viz. food that is licked, sipped, drunk and chewed. *Garbhopaniṣad* enumerates six kinds of foodsaps, i.e., मधुर=sweet, अम्ल=sour, लवण=salty, तिक्त=bitter, कटु=pungent and कषाय= astringent रसान्विन्दतीति (*GU* 1st para). Some translate तिक्त, कटु and कषाय as hot, pungent and bitter also). And out of these foodsaps (white) originate blood (red), out of blood (black-opaque) flesh, out of flesh the (smoky) fat, and out of fat (स्रायु) the (yellow) bones and out of bones (brown) marrow, out of the marrow the (pale) semen, and then the formation of an embryo is described. *Garbhopaniṣad* very strongly connects the speech with the seven kinds of musical notes like षड्ज, ऋषभ, गान्धार, मध्यम, पञ्चम, धैवत and निषाद. Then, *Garbhopaniṣad* delineates a very fine imagery of the body restoring to meaning symbolism. Ātman is the sacrifice (आत्मा यजमानो), the manas the Brahman (the priest of this name), greed etc. are the offerings to the sacrifice, perseverance and contentment are the sacrificial consecration, the organs of the sense are sacrificial utensils, the organs of the activity are the offerings, the head is sacrificial potsherd, the hair the darbha grass, and the mouth the inner sacrificial ground.

मनो ब्रह्मा लोभादयः पशवो धृतिर्दीक्षा सन्तोषश्च
बुद्धीन्द्रियाणि यज्ञपात्राणि कर्मेन्द्रियाणि हवीषि शिरः
कपालं केशा दर्भा मुखमन्तर्वैरिः ॥ (*GU* 4th para)

In this way, *Garbhopaniṣad* is one of the most remarkable *Upaniṣads* offering us a scientific insight into the embryology and physiology. There is no exaggeration in saying that *Garbhopaniṣad* not only talks about physical aspects but also weaves the spiritual aspect in the end and points out a journey of human life from सोऽहं to कोऽहं.

On many counts the modern science may not confirm the findings of the *Garbhopaniṣad*. But, it was most perspicuous on its part to have a glimpse of the science of embryology and we may say that till date physiology as a science has not unravelled all the secrets of the human body. At present it appears to be more probable that the modern science may validate the findings of the *Garbhopaniṣad* to some extent at least, and that would also be a great achievement, indeed. This brief study attempts to support a belief system that the scientific foreknowledge presented in the ancient scriptures/literature may help in predicting the next scientific breakthrough. At present we may test content by quoting Dr. K.V.Gajendragadkar, “The Embryology of the *Garbhopaniṣad* forms an original contribution to the development of Indian thought”.¹⁸

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