



ISSN: 2456-0057
IJPNPE 2018; 3(1): 131-134
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www.journalofsports.com
Received: 11-11-2017
Accepted: 12-12-2017

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Vedāntic concept of human being's body (*Śarīra*) and its interaction with external factors: A scientific analysis in the context of modern biology

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Abstract

This paper precisely describes the Vedāntic concept of human being's body which is not limited to physical body but also includes subtle and causal body. And it shows the relation, interconnectedness and interaction of these three types of body. What are the basic constituents of body, how food intake affects to subtle and gross body, such issues have been majorly focused. It is tried in this paper to make an analysis of the relation between *śarīra* and external factors. This discussion includes comparative analysis supported by the observations of the modern biological sciences.

Keywords: *Śarīra*, subtle body, gross body, external factors, epigenetics

Introduction

It has been an important curiosity since a long period to know about the relation between mind and body. It got into intense debate in modern western philosophy, especially in Cartesian philosophy of mind-matter-dualism. According to that mind and corporeal body are totally separate entities. This philosophy has been foundation of the classical physics, biology etc. The concept of body, according to modern Biology, is limited to physical entity only. It basically studies mind and body as separate entities but Vedānta approaches towards it in a holistic way as it describes about three layers of body originated from the un-differentiated reality. In this way, Vedānta philosophy is solution to the problem of mind-matter-dualism which is rooted in the fragmented world view of Cartesian philosophy. The present paper precisely describes the concept of body in Vedānta's perspective and tries to explain how all three layers of body are differentiated as well as undifferentiated. These are differentiated at expression level but undifferentiated at causal level. As much as modern Biology is progressing, scientific observations are unfolding interconnectedness among mind, body and external factors. These observations are much closer to the fundamental concept of Vedānta philosophy that provides unified worldview. An organism is whole that is more than the sum of its organs, this view lacks in the modern Biology. Many systemic problems cannot be understood in isolation. In this regard, a holistic concept of body available in Vedānta philosophy can address the problem, modern Biology faces.

Constituents and Nature of the Three Layers of Body

In Vedānta, the word body (*śarīra*) denotes to a wider concept that includes three layers of bodies – *kāraṇa śarīra* (Causal body), *sūkṣma śarīra* (Subtle body) and *sthūla śarīra* (Gross body)^[1].

Causal Body: The first one is 'undifferentiated state and cause of individual ego' named *kāraṇa śarīra*. Two other bodies subtle and gross evolve out of it and dissolve to it. It is a state of happiness and consciousness covered with the finest state of ignorance i.e. Bliss Sheath or *Ānandamayakośa*^[2].

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¹ Vedāntasāra, 7, 12-16

² Vedāntasāra, 7

Subtle body: Subtle body is first creational form of the reality made of five subtle elements [3]. It comprises three parts namely *vijñānamayakośa*, *manomayakośa* and *prāṇamayakośa*. Five sense organs and *buddhi* (Intellect/faculty that takes decision) are the constituents of *vijñānamayakośa*. This causes the existence of ego-self which experiences pleasure and pain and known as *Jīva*. It is potent, hence the doer (*kartā*). Five sense organs and *mana* (mind/Volitional faculty) constitute *manomayakośa*. This is filled with desire and accepted as the means of doer. *Pañch prāṇa* and five motor organs cause *prāṇamayakośa*. It is in the form of activation power or in form of action.

Sūkṣmaśarīrāṇī saptadaśavyavāni liṅgaśarīrāṇi. Avayavāstu jñānendriyapañcakam buddhimanasī karmendriyapañcakam vāyupañcakam ceti. Jñānendriyāṇi śrotravak-cakṣur-jihvā-ghrāṇākyāni...iyam buddhirjñānendriyaiḥ sahitā vijñānamayakośo bhavati. Ayaṁ kṛtrtvā-bhokṛtvā-sukhītvā-duḥkhitvādyabhimānitvenehaloka-paralokagāmī vyavhāriko jīva ityucyate. Manasū jñānendriyaiḥ sahitā sanmanomayakośo bhavati... Idam prāṇādipañcakam karmendriyaiḥ sahitam satprāṇmayakośo bhavati... Vijñānamayo jñānaśaktimāna kṛtrrūpaḥ. Manomaya icchāśaktimāna karaṇarūpaḥ. Prāṇmayah kriyāśaktimāna kāryarūpaḥ...etatkośtrayam militam satsūkṣma-śarīram-ityucyate [4].

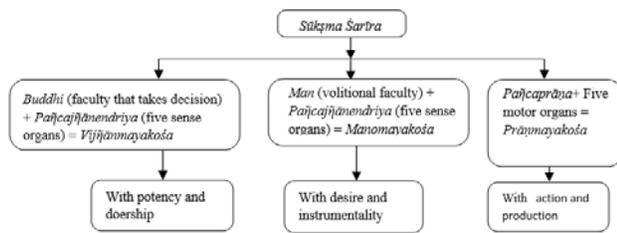


Fig 1: Showing Constituents and Inherent Nature of Subtle Body⁵

All three *kośas* are collectively known as *sūkṣma śarīra* or subtle body (As shown in figure 1). (1)The five organs of action such as speech etc., (2) the five organs of perception such as ears etc., (3) the five *prāṇas*, (4) the five elements starting with space along with (5) the discriminative intellect etc., and also (6) ignorance, (7) desire and (8) action... these eight "cities" together constitute the subtle body [6]. It is subtler than the gross body so named as *sūkṣma śarīra* (subtle body). It also passes through the experiences of gross and subtle (pain and pleasure) objects which come in contact.

"Manovṛttibhiḥ sūkṣmaṇiṣayānanubhavataḥ "pravivikatabhukta-tajasa" ityādi-śrutaiḥ" [8].

This subtle body also known as *liṅga śarīra*, is produced out of the elements before their subdividing and combining with each other, it's possessed of latent impressions and causes the soul to experience the fruits of its past actions. It is a beginning less (*anādi*) superimposition on the soul brought on

by its own ignorance⁹.

Gross Body: This body known as *sthūla śarīra* (gross body) is made of *pañcīkṛita* (a process through which subtle elements make gross elements by process of mixture in a particular ratio) *pañcamahābhūtas* (five gross elements). The process of *pañcīkaraṇa* happens in a special way as stated in *Vedāntasāra- Sthūlabhūtāni tu pañcīkṛtāni. Pañcīkaraṇam tvākāśādi-pañcasvekaikam dvidhā samam vibhajya teṣu daśasu bhāgeṣu prāthmikān-pañcabhāgāna-pratyekam caturdhā samam vibhajya teṣām caturṇām bhāgānām sva-sva-dvītiya-bhāga-parityāgena bhāgāntreṣu saṁyojanam*.¹⁰ It means the compounding takes place thus: Each of the five elements; viz., ether etc., is divided into two equal parts; of the ten parts thus produced five- being the first half of each element- are each sub-divided into four equal parts. Then leaving one half of each element, to the other half is added one of these quarters from each of the other four elements [11]. It is result of *anna* (food) and *rasa* (essence of food) taken by parents as well as by itself, hence known as *annamayakośa* [12]. It has been contrary to the theories of genetics that food intake of parents' is not major deciding factor in phenotypes and genotypes of the offspring's body. But the above process is similar to the findings of epigenetics which are supporting to the role of parent's diet in gross body phenotypes and also hypothesizing "we are what we eat but also what our parents ate" [11]. *Garbhopaniṣad* clearly mentions the body as result of four types of foods while defining body by its basic characteristics. *Garbhopaniṣad* defines human body as - Consisting of five, connected with each of the five, Supported on six, burdened with six qualities, having seven constituent elements, three impurities, twice procreated. Partaking of fourfold food is the body [13].

Pañcāmakam pañcasu vartamānam ṣaḍāśrayam ṣaḍguṇayogayuktam.

Tatsaptadhātu Trimalam Dvioni Caturvidhāhāramayam śarīram [14].

Garbhopaniṣad and its' *Dīpikā tīkā* (commentary) can be seen for detailed explanation of this definition. Four-fold food includes – eatable (*khādyā*), drinkable (*peya*), lickable (*lehya*) and suckable (*coṣya*) food items.

"Caturvidhāhāramayam lehya-peya-khādyā-coṣya-bhojyaiścaturbhiḥ-prakārair-vartamānamannam-āhāryamāṇam-chaturvidhāhārastasya vikāraścaturvidhāhāramayam" [15].

The definition also shows the relation of body with six *rāgas* of music [16] as indicated by the word *ṣaḍguṇayogayuktam*. A few studies show that music is protecting the aging brain from decay and it can be a helpful stimulus in neurogenesis [2]. Neuroanatomical differences between musicians and non-musicians have been reported in the corpus callosum, and in motor, auditor, and visuospatial regions, including the pre-

³ ...*Aitānyeva sūkṣmabhūtāni tanmātrānyapañcīkṛtāni cocyante. Etebhyah sūkṣmaśarīrāṇi sthūlabhūtāni copadyante. Vedāntasāra, 12*

⁴ *Vedāntasāra, 13*

⁵ This diagram is modified with adaptation from Hindi commentary on *Vedāntasāra* by Rakesh Shastri.

⁶ *Vāgādi pañca śravaṇādi pañca prāṇādi pañcabhramukhāni pañcha. Buddhyādyavidyāpi ca kāmkarmanī pūryaṣṭakam sūkṣmaśarīramāhuḥ. Vivekacūḍāmaṇi, 96, (tr.) by Swami Chinmayananda*

⁷ *Svapnasthānoantahprajñāḥ saptāṅga ekonvīnśatimukhaḥ pravivikatabhukta Tajaso Dvītiyapādaḥ. Māṇḍūkyaopaniṣad, 4.*

⁸ *Vedāntasāra, 14*

⁹ *Idam śarīram śṛṇu Sūkṣmasaṁjñitam Liṅgam Tvapañcīkṛtabhūtasambhavam Savāsanaṁ Karmaphlānubhāvakaṁ Svājñātoanādirupādhirātmanah. Vivekacūḍāmaṇi, 97*

¹⁰ *Vedāntasāra, 15*

¹¹ *Vedāntasāra, (tr.) by Swami Nikhilānanda*

¹² *Sthūlaśarīram-annavikāratvād-annamayakośah. Vedāntasāra, 17*

¹³ *Sixty Upaniṣads of the Veda, Vol. 2, p. 640*

¹⁴ *Garbhopaniṣad, 1*

¹⁵ *Garbhopaniṣad Dīpikā commentary, 1*

¹⁶ *Garbhopaniṣad, 2*

central gyrus and the planum temporale. Changes in functional representations have been observed in somatosensory and auditory regions in musicians [2][3]. Music therapy is being used for treatment in many diseases like cancer [4], dementia [5], psychological disorders [6] etc. It supports that music is essential part of body and it empowers body by taken food.

Relationship between Subtle and Gross body and Their Interaction with External Factors

Subtle body pervades gross body [17]. Gross body and subtle body are unable to perform any action without the help of or without joining to each other. If we try to understand it with computer analogy, subtle body is software and gross body is hardware. Gross and subtle body complements each other. Diet taken by gross body also affects subtle body too as mentioned in the Chāndogyopaniṣad – “Food when eaten becomes divided in three ways. Of it, that which is the grossest ingredient turns into faeces. That which is the medium constituent becomes flesh. That which is the subtlest becomes mind” [18].

“Water when drunk becomes divided in three ways. Of it, that which is the grossest ingredient turns into urine. That which is the medium constituent becomes blood. That which is the subtlest becomes the vital force.” [19].

Fire²⁰ when eaten becomes divided in three ways. Of it, that which is the grossest ingredient becomes bone. That which is the medium constituent becomes marrow. And which is the subtlest becomes (the organ of) speech [21].

When we understand the philosophy of *Chāndogyopaniṣad* in the context of food, water etc. and their impact on *manas* in terms of epigenetics, scientists have found the impact of food on genetic expressions which affect mental stress. Many metabolites which are ingredients of natural food, affect epigenome which regulate genetic expressions. New researches are explaining the effect of food intake on mind through gut microbiota [7], [8]. Chemical reactions in any organism's body (metabolism) happen in aqueous medium. So water directly impacts on functions of gross body and mind. The third thought about the relation of lipid rich food items (oil and butter) with motor organ of speech raises question of whether there is any impact of butter and oil etc. on speech ability related protein making genes' expression, can be a matter of further investigation. Autism spectrum disorders (ASD) involve disability of speech. Short chain fatty acids positively affect to ASD [8]. These fatty acids are part of fat enriched diet including butter and milk. It clearly shows the *Vedic* seers' understanding about effect of external factors on development of inner qualities like mind and intellect of a person. *Vedānta* philosophy admits that *antahkaraṇa catuṣṭaya* is of *madhyama parimāṇa* which implies that *manas*, *buddhi*, *ahaṅkāra* and *citta* all four are present in every part of the living body [22]. On this basis

¹⁷*Etadvyaṣṭyupahitāṁ Caitanyaṁ Viśva Ityucyate Sūksmaśarīrābhīmānamapriyāya Sthūlśarīrādiripraviṣṭatvāt. Vedāntasāra, 17*
¹⁸*Annamaśitāṁ Tredhā Vidhīyate Tasya Yaḥ Sthaviṣṭho Dhātustatpurīṣaṁ Bhavati Yo Madhyamastannāmsaṁ Yoṇiṣṭhastanmanh. Chāndogyopaniṣad, 6.5.1, (tr.) by Swami Gambhīrānanda*

¹⁹*Āpaḥ Pitāstredhā Vidhīyante Tāsāṁ Yaḥ Sthaviṣṭho Dhātustannmūtram Bhavati Yo Madhyamastallohitāṁ Yo Ṁṇiṣṭhaḥ Sa Prāṇaḥ. Chāndogyopaniṣad, 6.5.2, (tr.) by Swami Gambhīrānanda*

²⁰The word *Tejo* or fire denotes to butter and oil. *Chāndogyopaniṣad Śāṅkarbhāṣya, 6.5.3.*

²¹Speech denotes to the motor organ of speech that is part of the subtle body.

²²*Antahkaraṇameteṣu Cakṣurādīṣu Varṣmaṇi. Ahamityabhimānena Tiṣṭhātābhāsatejasā. Vivekacūḍāmaṇi, 103. The inner organ (mind) has its seat in the organs such as the eye, as well as in the body, identifying with*

every cell should have *manas* (faculty of volition), *buddhi* (faculty of decision), *ahaṅkāra* (faculty expressing identity) and *citta* (faculty of memory) [23]. Someone may be enthusiastic to establish a co-relation between genome and epigenome of a cell in the light of the concept of *Citta* on the basis of their relationship with memory requires a separate research work.

Conclusion

Vedānta explains body in a holistic way rather considering it as a physical entity only. Causal, subtle and gross bodies are different layers of the expression of consciousness. Gross body directly comes into contact with external factors including food, water, and music etc. whereas subtle body indirectly. Many changes are seen on gross as well as subtle body through above process. Thus the Human being's body is a whole that is interconnected with within and outside reality and interacts with them in many ways. Modern biological sciences are also making many new observations that can be helpful to explore this holistic concept of *Vedānta* in a more vivid way.

Acknowledgement

I would like to thank my supervisor Prof. Ram Nath Jha, SCSS, JNU for guiding the work. Without his guidance, it could not have been possible. And I also extend my thanks to UGC, Delhi for providing Junior Research fellowship.

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them and eluded with a reflection of Atman. English Translation by Swami Madhavananda

²³*Nigadyante-antahkaraṇaṁ Manodhīrahāmkṛtiścittamiti Svavṛtibhiḥ. Manastu Saṅkalpavikalpanādibhīrbudhiḥ Padārthādhyavasāyadharmataḥ. Atrābhīmānādahamityahāmkṛtiḥ. Svārthānusanadhāṅguṇena Cittam. Vivekacūḍāmaṇi, 94*

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