

Religion and Medicine in Ancient India – A Different Discourse Based on *Caraka Saṃhitā*

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Introduction

“Science and religion have one and the same origin: both are generated naturally in the human mind...it is, therefore, nonsense to inquire whether the existence of the one is compatible with that of the other. They are able to coexist seeing that they do coexist! The only problem is that of seeking out the reason and meaning of this coexistence.”

Emile Boutroux (1909)

The objective of this paper is to explore the link between religion and medicine from the perspective of present-day Hinduism, but with special emphasis on the past, and the ancient Indian medical tract, *Caraka Saṃhitā*.^{*} It is not so easy to define religion and its relationship with medicine, or in other words, the science of healing. Let us make the initial assumption that both deal with the welfare of human beings and how to make their lives happy and peaceful. Comparing contemporary Hinduism in the context of the global public sphere with the ancient Indian treatise and its social context will improve our historical understanding of the institutional relationships between religion and medicine.

Plato defined medicine as follows: “Medicine is an art and attends to the nature and construction of the patient, and has principles of action and reason, in each case.”¹ On the other hand, he conceived of religion as the relationship between two worlds, celestial and earthly, an endless dialogue between men and the supernatural power.²

¹ Bynum, W.F. and Porter, Roy (eds) – *Companion Encyclopedia of The History of Medicine (Vol. 1 & 2)*, Routledge, London, 1993, Introduction.

² Livinson, David – *Religion, A Cross-Cultural Encyclopedia*, ABC – CLIO, California, 1996, *passim*.

In public debates one often encounters a seemingly never-ending battle between “heartless science” and “mindless religion”. But the two have much in common. There are many examples of peaceful co-existence between science and religion, where religious people have no objection to having their beliefs analyzed in the light of science and logic. Similarly, numerous sciences make room for religious appraisal. Ultimately, the compatibility of religion and science consists in their common and principal aim: to serve mankind and human civilization.

Against this backdrop, one can suggest that the relationship between religion and medicine have played a significant role in the growth and development of humanity. We cannot deny the power of the mind over the body, where religious faith is concerned. Similarly, the significance of good habits and a disciplined life along with medicine if necessary is universally accepted as a basis for leading a healthy life.

Elwood Worcester (1908), an English physician, wrote in his book *Religion and Medicine, The Moral Control of Nervous Disorders* that “We believe God has power to cure all disease, but we do not believe God cures all disease by the same means. At all events an authentic instance of recovery from organic disease through physical means is what we are waiting for.”³ This specific attitude establishes a rational standpoint by which we can situate science in the context of religion. In a contemporary context, Roy Porter, in the *Companion Encyclopedia of The History of Medicine*, defines the relationship as follows: “Religion and medicine share a single aim, that of making whole. It is no accident that ‘holiness’ and ‘healing’ have a common etymology, rooted in the idea of wholeness; as do salvation and the salutary, cure, care, and charity.”⁴ According to Porter, there is no “conceptual distinction (‘dualism’) between body and soul, mind or spirit. All such differentiations are ‘messy and unstable’, since experience also shows the connections...between the somatic and psychic, the worldly and transcendental.”⁵

The Hindu religion and its link with the ancient Indian medical tract *Āyurveda* reflect the same affinity between religion and medicine, exemplified in the ancient medical text *Caraka Samhitā*.

³ Worcester, Elwood – *Religion And Medicine, The Moral Control Of Nervous Disorders*, 1908, Introduction.

⁴ Porter, *passim*.

⁵ Ibid.

In *Caraka Samhitā* we find a fine blend of science and religion, based on the indigenous culture and tradition. As such, it is an important case to explore in order to reach a better understanding of the discourse on religion and medicine. It may even provide an answer as to why religion continues to want to have a say in issues related to medicine, an issue which once provoked Bertrand Russell (1935) to comment, “Theology still tries to interfere in medicine where moral issues are supposed to be specially involved, yet over most of the field the battle for the scientific independence of medicine has been won. No one now thinks it impious to avoid pestilences and epidemics by sanitation and hygiene; ... though some still maintain that diseases are sent by God...”.⁶

Āyurveda: A Brief Overview

Āyurveda means the knowledge of life (*Āyur* – Life, *Veda* – Knowledge). Initially conceived by the Hindus, it was later developed by the Persians, Greeks and Arabs. The idea is based on two principal objectives – *Āyush* (long life) and *Ārogya* (free from ailments).⁷

Āyurveda propagates the secrets of healthy and long life through a number of metaphysical concepts. These are: 1) the *paramanu* or atomic theory of substance; 2) the *tri-guṇa* or three-quality theory of matter; 3) the *pancha-bhūta* or five-element (*bhūta*) theory of physics, which contains Ether (*vyom*), Wind (*vāyu*), Water (*ap*), Earth (*kṣiti*), and Fire (*agni* or *tejas*); 4) the *sāpta-dhātu* or seven-element theory of physiology; and lastly, 6) the *tri-dosha* or three-humour theory of temperament.⁸ In other words, *Āyurveda* deals with *Cikitsā* (treatment) for the remedies of *roga* (disease) with the help of the *vaidyas* (physician).⁹ It was stated,

हिताहितं सुखं दुःखमायुस्तस्य हिताहितम् । मानं च तच्च यत्रोक्तमायुर्वेदः ॥४१॥

hitāhitam sukham duḥkhamāyustasya hitāhitam/ mānam ca tacca yatroktamāyurvedaḥ
//41//

⁶ Russell, Bertrand – ‘*Religion And Science*’, Home University Press, 1935, pp.110 -143.

⁷ Final Report on the Project, ‘*Āyurveda and its Impact on Indian and South East Asian Societies*’, by Dr. Rita Chattopadhyay, Department of Sanskrit, Jadavpur University, India, 2008, POSCOTJ Foundation, Korea, p.9.

⁸ Ibid, also see Sharma, - p.6, *Sūtrasthāna*, 1st chapter, śloka 41.

⁹ Final Report - p.5.

This particular verse gives a specific description of this ancient Hindu medical science which rejuvenates life from the ailments and uplifts humen with longevity free from vile and blessed with goodness.

The etymological meaning of the term *Āyurveda* may be interpreted in different ways:

हिताहितं सुखं दुःखमायुस्तस्य हिताहितम् । मानं च तच्च यत्रोक्तमायुर्वेदः ॥४१॥

Āyurasmin vidyate 'nena va āyurvindatīti āyurvedaḥ

Life exists in it or that which helps one to enjoy a longer life.¹⁰

Or alternatively,

अनेन पुरुषो यस्मात् अयुर्विन्दति वेत्ति च । तस्मनुनिवरै रेस आयुर्वेद इति स्मर्तः

Anena puruso yasmāt ayurvindati vetti ca / Tasmanunivarai resa āyurveda iti smartaḥ

Since one attains longevity through this *sastra* and knows about 'life' through this, so it is called *Āyurveda* by the great sage.¹¹

The science of *Āyurveda* has eight distinct branches, *Kāyacikitsā* (internal medicine), *Śālāyā* (surgery), *Śālākya* (pertaining to diseases of supra-clavicular region), *Kaumārabhṛtya* (pediatrics including obstetrics and gynaecology), *Agadatantra* (toxicology), *Bhūtavidyā* (pertaining to micro-organisms or spirits), *Rasāyana* (a special kind of therapy), and *Vājīkaraṇa* (pertaining to aphrodisiacs).¹²

These branches reflect an ancient form of inter-disciplinary exchange and coordination, which makes *Āyurveda* a multi-faceted medical science. Two of the specialities gave birth to two exclusive schools of knowledge. These are *Kāyacikitsā*, *Ātreya* or *Paunarvasa sampradāya* (school of medicine) and *Śālāyā* or *Dhānvantara sampradāya*.¹³

Here the emphasis is placed on the eight distinctive branches (*sampradāya*) which ultimately gave birth to the core of this medical system which are medicine and surgery. For example, *Kāyacikitsā* (medicine) and *Dhānvantara* or *Śālāyā* (surgery) are the most important genres of *Āyurveda*.

¹⁰ Ibid.

¹¹ Sharma, - Chapter -1, pp. 3-14.

¹² Ibid.

¹³ Ibid, Introduction, pp. vi – viii.

Caraka Saṃhitā: An Encyclopedia of Diseases

It is difficult to determine the exact date of *Caraka Saṃhitā*. According to Professor Priyavrat Sharma, one of the editor-translators of *Caraka Samhita*,

Agniveśa was the foremost among the disciples of Ātreya and the author of the Agniveśa-tantra...he existed long back and became a historical figure by the time of Pāṇini (7th century B.C.). In the *Caraka Saṃhitā*, *Āyurveda* is said to be intimately connected with Atharvaveda...The date of Atharvaveda is fixed as 1500 B.C. On the basis of these points the date of Ātreya may be fixed before Pāṇini (7th century B.C.) and after the Atharvaveda (1500 B.C.) e.g. near-about 1000 B.C.¹⁴

It is also difficult to identify the author of *Caraka Saṃhitā* with any one individual. According to some scholars, Caraka was one of the branches of *black Yajurveda* and the followers of this branch constituted a sect known as Caraka. Perhaps the commentator of *Caraka Saṃhitā* belonged to this particular sect.¹⁵

In *Atharvaveda*, there was a specialist branch, called *Vaidyacāraṇa*, which had a connection with the tradition of *Vaidyas* who served as itinerant medical experts, travelling from one place to another and treating the indigenous people. This particular concept of mobility (*Cāraṇa*) is clearly reflected in the treatise of Caraka.¹⁶

According to some scholars, Caraka was the royal physician of the Emperor Kaniṣka from the 1st or 2nd century A.D. This view has been criticized by other researchers, as Kaniṣka was very much dedicated to Buddhism. On the other hand, *Caraka Saṃhitā* was a pioneering work which exhibited a strong faith in Hinduism and in the Vedic culture.¹⁷

¹⁴ Ibid, pp. vii – xii.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Baduri, Dalia – ‘*Carak Samhitar Darshonik Bhabna Samikshsha* (in Bengali),’ The Asiatic Society, Kolkata, 2006, Preface by Ramakanta Chakravorty.

But in 1890, Lieutenant A. Bower discovered an ancient text on medicine, dated to the 4th century A.D., which had similarities with *Caraka Saṃhitā*. From this evidence it is believed by some scholars that perhaps Caraka lived in the days of Kaniṣka.¹⁸

Others have attempted to make a link between Caraka and Patañjali, a legendary figure in the field of Yogic mysticism, which is perhaps inaccurate. Patañjali lived during the 2nd century B.C. which has been confirmed by historical evidence. On the other hand, Caraka belonged to the period of early 200 B.C. From the chronological point of view then, Caraka lived earlier than Patañjali.¹⁹

Sections and Chapters of Caraka Saṃhitā

Caraka Saṃhitā has eight sections which comprise altogether 120 chapters. These are 1) *Sūtrasthānam* (30 chapters), 2) *Nidānasthānam* (8 chapters), 3) *Vimānasthānam* (8 chapters), 4) *Śārīrasthānam* (8 chapters), 5) *Indriyasthānam* (12 chapters), 6) *Cikitsasthānam* (30 chapters), 7) *Kalpasthānam* (12 chapters) and 8) *Siddhisthānam* (12 chapters).²⁰

In the first section, the chapters have been arranged by topic and each group has four chapters. They are known as *Catuṣkas* (quadruplets) which deal with ‘drugs, health, precepts, and preparations, diseases, planning and diet’. The main subject matter for these eight sections highlights certain medical concepts. These are ‘fundamentals, diagnosis, specific features, human body, fatal signs, treatment, pharmaceuticals and successful management’.²¹

Hinduism and Caraka Saṃhitā

To describe the relationship between Hinduism and *Caraka Saṃhitā*, a starting point would be Dr. Ryan’s *Medical Jurisprudence* (1836), here cited by Girindranath Mukhopadhyaya in 1923:

¹⁸ Sharma, – p.xii.

¹⁹ Ibid, p. xiii.

²⁰ Ibid.

²¹ Mukhopadhyaya, - p.5.

All medicine is derived from God, and without his will cannot exist or be practiced. Hence the healing art, if disunited from religion, would be impious or nothing. Illness requires us to implore the Deity for assistance and relief, and humbles human pride. The seeds of the art, the wonderful cures, and the powers of remedies, are in the hand of God...²²

From *Bhāvamiśra*'s account we learn that Caraka is described by the hymns as an incarnation of *Anantadeva*, the God of snakes. He acted as the custodian of the *Vedas* and the *Āyurveda* when *Nārāyaṇa* rescued the *Vedas* in his Fish incarnation.²³

Caraka Saṃhitā chiefly highlights the contribution of three Hindu Gods. They are Brahmā, Indra and Dakṣa Prajāpati. According to *Caraka Saṃhitā*, *Āyurveda* originated from Brahmā, the Hindu god considered to be the creator of the universe. The Ayurvedic tradition gradually passed through Dakṣa Prajāpati and Indra to Bharadvāja or Atri. Finally, Ātreya acquired *Āyurveda* and contributed greatly to its growth and development. He had six dedicated disciples (Agniveśa, Bhela, Jatūkarṇa, Pāraśara, Hārīta and Kṣārāpāṇi).²⁴

Amongst them Agniveśa excelled in this particular field and made his teacher proud of him. He wrote *Agniveśa-tantra*, which was later edited by Caraka and known as the *Caraka Saṃhitā*. From this perspective it can be said that *Caraka Saṃhitā* was not the brain child of Caraka, rather it was a modified and extended version of the *Agniveśa-tantra*. Later, Dṛḍhabala, a scholar from ancient Kashmir, restructured *Caraka Saṃhitā* with his own annotations.²⁵

In the *Yajurveda*, the god Brahmā is referred to as “the first divine physician”, “who drives away all diseases”. Indra is described as the chief of the Gods. In one of the hymns of *Atharvaveda* (XIV.2, V.12) it is stated, “That is the Bountiful one, who without a ligature, before the severance of the cervical cartilage, affect a union.”²⁶

²² Ibid, p. 16.

²³ Ibid, p. 17.

²⁴ Sharma, - p. vi.

²⁵ Mukhopadhyaya, Girindranath – pp. 99-100.

²⁶ Sharma, Vol. – II, pp. 4-5, *Cikitsāsthānam*, 1st chapter, śloka 7 & 8.

Caraka makes a connection between *Rasāyana* (treatment procedure) and *Āyurveda*, the science of life.²⁷ This particular treatment has two distinctive methods, *kuṭīprāveśika* (indoor) and *vātātāpika* (open air). The divine drugs (*aindrī, brāhmī, payasyā, kṣīrapuṣpī, śravaṇī, mahāśrāvaṇī, śatāvarī, vidārī, jivantī*. etc.) grown in the Himalayas, as mentioned by Indra and cited by *Caraka*, make a major contribution to the *Rasāyana*.²⁸

These drugs, if taken with milk for six months, “provide certainly the maximum life-span, youthful age, freedom from disease, excellence of voice and complexion, corpulence, intellect, memory, superior strength and other desired merits”.²⁹

Caraka Saṃhitā honors physicians and gives them the utmost priority. More importantly, the great physicians of ancient India, the Aśvin brothers, were worshipped by “the gods and their masters” as the above-mentioned text states.³⁰

The importance of *Agni* also constitutes an interesting episode of *Caraka Saṃhitā*. Here *Agni* means the fire within the body which has the power to digest.³¹

आयुर्वर्णो बलं स्वास्थ्यमुत्साहोपचयै प्रथा । ओजस्तेजोऽग्नयः प्राणाश्चोक्ता देहाग्निहेतुकाः ॥३॥
शान्तेऽग्नौ म्रियते, युक्ते चिरं गीवत्यनामयः । रोगी स्याद्विकृते, मुलमग्निस्तस्मान्निरुच्यते ॥४॥

Āyurvarṇo balaṃ svāsthyamutsāhopacayai prathā/ Ojastejo’gnayaḥ prāṇāścoktā
dehāgnihetukāḥ //3//
Śānte’gnau mriyate, yukte ciraṃ gīvatyanāmayah/ rogī syādvikṛte,
mulamagnistasmanirucyate //4//

In Hinduism, *Agni* as fire is regarded as a medium by which humans can offer sacrifices to God.

²⁷ Ibid, p.29, *Cikitsāsthānam*, chapter 1.4, śloka 6.

²⁸ Ibid.

²⁹ Ibid, p.33, *Cikitsāsthānam*, chapter 1.4, śloka 39-51.

³⁰ Ibid, p.249, *Cikitsāsthānam*, 15th chapter, śloka 3-4.

³¹ Mukhopadhyaya, - pp. 16-18, 28, 83, 111-112, 120-129.

Dakṣa is called the *Prajāpati*, i.e. the creator of living beings. Apart from these gods, *Āyurveda* makes reference to Śiva, Viṣṇu, Bhāskara, Kārtikeya, Yama, Varuṇa, Sarasvatī, Rākā, Sinivali, Guṇḍu and Anumati. All these gods and goddesses are intrinsic parts of ancient Indian medicine.³² *Caraka Saṃhitā* establishes relationships between the gods and certain ailments. For example, the anger of Śiva causes fever³³ and finally *raktapitta* (a kind of haemorrhage).³⁴ Another disease, *rājayakṣmā* or phthisis has a connection with Lord Moon, the King of the Stars, as it afflicts Him.³⁵ Caraka places emphasis on the importance of mind, body and soul, which are the three basic pillars of the living world.

सत्त्वमात्मा शरीरं च त्रयमेतत् त्रिदण्डवत् । लोकस्तिष्ठति संयोगात् तत्र सर्वं प्रतिष्ठितम् ॥४६॥

Sattvamātmā śarīraṃ ca trayametattridaṇḍavat/ lokastiṣṭhati sm̐yogāttattra sarvaṃ
pratiṣṭhitam //46//

Through this particular verse it is stated that mind, soul and body are the three easels of the body. The world endures with the combination of these three, constituting the basis of everything.

स पुमांश्चेतनं तच्च तच्चाधिकरणं स्मृतम् । वेदस्यास्य, तदर्थं हि वेदोऽयं संप्रकाशितः ॥४३॥

Sa pumāṃścetanam tacca taccādhikaraṇam smṛtam / vedasyāsyā, tadarthaṃ hi vedo'yaṃ
saṃprakāśitaḥ //43//

This preaches that *Āyurveda* as a discipline of knowledge is beneficial to both the world of life and the world beyond life, and it will greatly excel as set out by the distinguished scholars of Vedas.

It may be noted that, mind, soul and body- these three major elements give birth to *Puruṣa*, which is the only cosmic being to experience happiness, misery and other earthly symptoms.³⁶ According

³² Sharma, Vol. – I, p.257, *Nidānasthānam*, 1st Chapter, śloka 35.

³³

³⁴ Ibid, p.261, *Nidānasthānam*, 2nd Chapter, śloka 10.

³⁵ Ibid, p.285, *Nidānasthānam*, 6th chapter, śloka 12.

³⁶ Ibid, p.6, *Sūtrasthānam*, 1st chapter, śloka 46-47.

to *Kaṭha Upaniṣad* and *Sāṃkhya Prabachan Sūtra*, *Puruṣa* is the ultimate entity, and chief source of conscience.³⁷

According to *Caraka Saṃhitā*, *raja* and *tama* are two *doṣas* or evils which are responsible for the pollution of the mind, which can be cured by knowledge, patience, memory and meditation (*Samādhi*).

According to another Hindu religious text *Bhagavad Gītā*, there are three qualities which confine the soul within the body. These are *satya*, *raja* and *tama*. They have their origin in nature and this concept is part of natural philosophy. Like many other branches of Indian philosophy, Caraka believes in the singularity of the mind, though it examined its various stages. The relationship between mind and soul was also highlighted.³⁸

As Caraka opines, the soul or *ātman* gives birth to knowledge which is needed for the creation of the earthly body. *Ātman* has no shape and is responsible for the creation of knowledge.³⁹ The distinguished branches of Indian philosophy like *Naya Sūtra* and *Yoga Sūtra* also supported this view. As *Chāndogya Upaniṣad* states, the soul is fearless and immortal. *Ātman* can transmigrate from one body to other, but it cannot be recreated.⁴⁰

In the tenets of Hindu theology, *karma* (action) is very significant as it defines the character of a person and determines his rebirth after death, which might be in hail or in the heaven. The importance of *karma* is also mentioned by Caraka where he makes a link between *dravya* and *karma*.⁴¹ He states,

संयोगे च विभागे च कारणं द्रव्यमाश्रितम् । कर्तव्यस्य क्रिया कर्म कर्म नान्यदपेक्षते ॥५२॥

Smyoge ca vibhāge ca kāraṇaṃ dravyamāśritam/ kartavyasya kriyā karma karma nānyadapekṣate //52//

³⁷ Baduri, - Chapter on '*PuruṣaoPrakṛti*,' p.195.

³⁸ Ibid, Chapter on '*Doṣa, DhātuoMalabijñān*', pp.145-165.

³⁹ Ibid, Chapter on '*Ātman*', pp.161-181.

⁴⁰ Ibid, pp. 166-167.

⁴¹ Sharma, - p.7, *Sūtrasthānam*, 1st chapter, śloka 52.

Caraka through this verse wanted to portray that self, mind, time and space (*ākāśa*, *vāyu*, *tejas*, *ap* and *pṛthivī*) are considered as *dravya*. As self, mind, time and space detect the pace and nature of *karma* (action), from this perspective *dravya* becomes an integral component of *karma*. More importantly, *karma* has an intimate relation with *ātman*, as the latter is affected by the fruits of *karma* or action known as *karmaphal*.⁴²

In another verse, Caraka mentions the *paraātman* or the supreme self. He writes,

निर्विकारः परस्त्वात्मा सत्त्वभुतगुणेन्द्रियैः । चैतन्ये कारणं नित्यो द्रष्टा पश्यति हि क्रियाः ॥५६॥

Nirvikārḥ parastvātmā sattvabhutaguṇendriyaiḥ/ caitanye kāraṇaṁ nityo draṣṭā paśyati hi kriyāḥ//56//

This verse states that the supreme self is devoid of abnormalities and is the cause of consciousness in conjunction with the mind, the properties of *bhutas* and sense organs, is eternal and is the seer who sees all actions.⁴³ According to some scholars, *Paraātman* in *Caraka Saṃhitā* does not mean God or any divine power. Caraka uses the word to describe the excellence of the soul.

The secret of a healthy body depends not only on physical wellness, but also a healthy mind, which is rooted in morality and purity of heart. In one of the *ślokas* of *Sūtrasthāna*, Caraka says:

निर्विकारः परस्त्वात्मा सत्त्वभुतगुणेन्द्रियैः । चैतन्ये कारणं नित्यो द्रष्टा पश्यति हि क्रियाः ॥५६॥

Lobhaśokabhayakrodhamānavegān vidhārayet/ nairlajjyerṣyātirāgāṇāmabhidhyāyāśca buddhimān //23//

The meaning of this *śloka* is that a wise person should avoid lust for material gains, bitterness, fear, egotism, appropriation of others' wealth, and the lure of sin and jealousy, and that this will help him live a better life.⁴⁴

⁴² A) Ibid, p.6, *Sūtrasthānam*, 1st chapter, śloka 48. B) Baduri, - p.175.

⁴³ Sharma, - p.7, *Sūtrasthānam*, 1st chapter, śloka 56.

⁴⁴ Ibid, pp.49-50, *Sūtrasthānam*, 7th chapter, śloka 27.

Caraka further points out that innocence is the secret of earning wealth and obtaining good qualities, where faith in religion also matters. “Adoption of good practices” is also necessary for having a long and disease-free life. More importantly, respect for women constitutes one of the major conditions in *Caraka Saṃhitā* to achieve good health.⁴⁵

In the ninth chapter of *Sūtrasthāna*, Caraka describes the three desires of human beings, lust for life, wealth, and life after death. He emphasizes the importance of a code of conduct by which a man can fulfill all his materialistic needs.⁴⁶

Caraka Saṃhitā expresses doubts regarding the concept of reincarnation which is pertinent in the following verse:

अथ तृतीयां परलोकैषणामापद्येत । संशयश्चात्र, कथम्? भविष्याम् इतश्च्युता न वेति; कुतः पुनः संशय इति, उच्यते – सन्ति ह्येके प्रत्यक्षपराः परोक्षत्वात् पुनर्वस्य नास्तिक्यमाश्रितः, सन्ति चागमप्रत्ययादेव पुनर्भवमिच्छन्ति; श्रुतिभेदाच्च-

मातरं पितरं चैके मन्यन्ते जन्मकारणम् । स्वभावं परनिर्माणं यदृच्छां चापरे जनाः ॥ इति ।

अतः संशयः किं नु खल्वस्ति पुनर्भवो न वेति ॥६॥

*Atha tṛtīyāṃ paralokaiṣaṇāmāpadyeta/ sṃśayaścātra, katham? bhaviṣyām itaścyutā na veti; kutaḥ punaḥ saṃśaya iti, ucyate-santi hyeke pratyakṣaparāḥ parokṣatvāt punarvasya nāstikyamāśritāḥ, santi cāgamapratyayādeva punarbhavamicchanti; śrutibhedācca-
'mātaraṃ pitaraṃ caike manyante janmakāraṇam/ svbhāvaṃ paranirmāṇam yaddacchām cāpare janāḥ// iti/*

ataḥ saṃśayaḥ-kiṃ nu khalvasti punarbhavo na veti //6//

Here we find a faint hint of the *Lokāyata* or *Cārvāka* philosophy, according to which it is important to enjoy life to the fullest before death. The basic principle of this school is “eat, drink and be

⁴⁵ Ibid, p.51, *Sūtrasthānam*, 7th chapter, śloka 36-37.

⁴⁶ Ibid, p.69, *Sūtrasthānam*, 11th chapter, śloka 4.

merry”.⁴⁷ It is also referred to as the *Bṛhaspati Sūtras*, for traditionally *Bṛhaspati* is regarded as the founder of this school of Hindu philosophy.⁴⁸ Though the *Lokāyata* School comes later, still there is some resemblance with the above-mentioned text.

But in some places he also tries to justify the authenticity of rebirth. Caraka mentions about *āptapodesh*, *prttakshya*, *anumāna* and *śabda*, and according to him, these are evidence (*pramāna*) of reincarnation or *punarjanma*.⁴⁹ Hindu philosophies like *Naya Sūtra* and *Naya Darśana* have echoed the same point.⁵⁰ Furthermore, he recommends engaging in an honest profession like agriculture, animal husbandry, trade and commerce etc. for earning money and status.⁵¹

Caraka Saṃhitā identifies the ways to attain beneficial life. According to which, if the person is honest, liberal, knowledgeable, intelligent, kind and religious (in other words has knowledge of and devotion to metaphysics, keeping an eye to both the worlds), then he will live a life full of positivity and potential.⁵² The emphasis on moral behavior should be noticed here to better understand Caraka’s philosophy of life.

In one of the verses, Caraka describes *Āyurveda* as divine and eternal. It should be studied by the *Brāhmaṇas*, *Kṣatriyas* and *Vaisyas*, the first three classes of the Hindu hierarchical social system, known as *Varṇa*.⁵³ The lowest stratum of the *Varṇa* system, i.e. untouchables or the *Śūdras*, has no importance placed on it, which perhaps points to one of the notable features of the ancient Aryan civilization, namely inequality on the basis of skin color or complexion.

In the fourth section of *Caraka Saṃhitā*, known as *Śārīrasthānam* or the study of anatomy, Caraka gives the definition of mind. According to him, the mind is the source of all knowledge, which

⁴⁷ A) Ibid, p.70, *Sūtrasthānam*, 11th chapter, *śloka* 6. B) Goswami, Subuddhi Charan (Ed.) – ‘*Lokāyata* Philosophy, A Fresh Appraisal,’ The Asiatic Society, Kolkata, 2010, an article by Mrinal Kanti Gangopadhyay on ‘The *Lokāyata* School’, p.1.

⁴⁸ Gangopadhyay, - p.1.

⁴⁹ Baduri, - Chapter on ‘*Punarjanma*’ (rebirth), pp. 183-187.

⁵⁰ Ibid, pp. 182, 185.

⁵¹ Sharma, - Vol.I, p.70, *Sūtrasthānam*, 11th chapter, *śloka* 5.

⁵² Ibid, pp.239-40, *Sūtrasthānam*, 30th chapter, *śloka* 24.

⁵³ Ibid, pp.240-242, *Sūtrasthānam*, 30th chapter, *śloka* 27, 29.

originates from the mind's contact with self, sense objects and sense organs.⁵⁴ Purity of mind leads to enlightenment and makes a person honest and rational which were mentioned in verses 18 and 29 as follows:

लक्षणं मनसो ज्ञानस्याभावो भाव इव च । सति ह्यात्मेन्द्रियार्थानां सन्निकर्षे न वर्तते ॥१८॥
 बैवृत्यान्मनसो ज्ञानं सान्निध्याच्च वर्तते । अणुत्वमथ चैकत्वं द्वौ गुणौ मनसः स्मृतौ ॥२९॥

*lakṣaṇaṃ manaso jñānasyābhāvo bhāva eva ca/ sati hyātmendriyārthānāṃ sannikarṣe na
 bartate//18//*

*baivṛtṭyānmanaso jñānaṃ sānnidhyāttcca vartate/ aṇutvamatha caikatvaṃ dvau guṇau
 manasaḥ smṛtau //29//*

Here Caraka also emphasizes a specific theory of causality, according to which every single action of this living world has a reason behind it. This particular concept is prominent in the tenets of Hindu philosophy where religion plays a dominant role.⁵⁵

Furthermore, numerous streams of Hindu philosophy consider mind as a sixth organ or *indriya* like nose, tongue, eyes, skin and ear. According to *Sāṃkhya Kaumudī*, mind is the eleventh organ. *Manu Saṃhitā* states that mind is the soul of both action (*Karmendriya*) and knowledge (*Jñānendriya*). *Caraka Saṃhitā* terms mind as *atindriya*, meaning an organ which can sense more than the five bodily sense organs (nose, tongue, eyes, skin and ear).⁵⁶

Caraka describes the secret of birth. He describes the wheel of creation and how a person or *puruṣa* is born after having passed through many stages of the cosmic world. Even after death, the wheel keeps turning to continue the generative cycle.⁵⁷ In this particular context, Caraka makes a link between *karma* (action) and the occurrence of some ailments. The actions of past life, which are also known as *daiva* (destiny), become responsible for specific diseases.⁵⁸ Here we find a

⁵⁴ Ibid, p.398, *Śarīrsthānam*, 1st chapter, *śloka* 18-19.

⁵⁵ Ibid, p.398, *Śarīrsthānam*, 1st chapter, *śloka* 18-19.

⁵⁶ Baduri, - Chapter on 'Man', (Mind), pp.125-128.

⁵⁷ Sharma, - Vol.I. p.403, *Śarīrsthānam*, 1st chapter, *śloka* 67-69.

⁵⁸ Ibid, p. 407, *Śarīrsthānam*, 1st chapter, *śloka* 116.

contradiction. In one of the *śloka*s, Caraka expresses doubts regarding rebirth, on the other, he himself relates *karma* and *daiva* to the causes of ailments. This confusion, or perhaps doubt on the part of some authors, was a common feature of many writings in ancient India where religion played a pivotal role.

The terms like *yoga* and *mokṣa* also constitute an important component of *Caraka Saṃhitā*. *Yoga* means unification of inner and outer selves, and *mokṣa* leads to salvation which was depicted in verse number 137.

योगे मोक्षे च सर्वासां वेदनानामवर्तनाम । मोक्षे निर्वृत्तिर्निःशेषा योगे मोक्षप्रवर्तकः ॥१३७॥

*yoge mokṣe ca sarvāsāṃ vedanānāmavartanam/ mokṣe nivṛttirniḥśeṣā yoge
mokṣaprvartakaḥ //137//*

In other words, to attain salvation one must become united with one's own self. If the mind is pure it can attain the ultimate phase of refurbishment. *Mokṣa* is the highest stage, and if a person attains *mokṣa* he becomes free and is never born to this world again. This phase is known as *apunarbhava*. *Yoga* was also seen as a state which indicates absence of feeling and senses.⁵⁹

Caraka also mentions *tantrayukti*, which is a science (*śastra*). According to Caraka, there are 36 *tantrayuktis*. These are *Adhikaraṇa*, *Yoga*, *Hitartha*, *Padārtha*, etc. *Tantrayukti* is important for understanding ancient medical science; it helps to decipher the proper meanings.⁶⁰

It is a well-known fact that, like other religions, the Hindu religion also contains numerous irrational customs and superstitions. *Caraka Saṃhitā*, even with its scientific nature, recommends certain superstitious practices, such as the wearing of amulets prescribed by the priests or *Brāhmaṇas*.⁶¹

⁵⁹ Ibid, p.409, *Śarīrsthānam*, 1st Chapter, *śloka* 137.

⁶⁰ Baduri, - chapter on '*Tantrayukti*', pp.222-237.

⁶¹ Sharma, - p.486, *Śarīrsthānam*, 8th chapter, *śloka* 62

To describe death, Caraka includes some symptoms which have no scientific base. For example, the presence of foul and pleasant smells. If a person can feel the fragrance of flowers, or his body becomes a source of aroma like sandal, honey, garland etc. then he is on the verge of death. However, also foul smells of urine and the like may indicate that the end of life is near.⁶²

More importantly, Caraka talks about ghosts or the spirits and explains methods to detect their presence. According to him, if the shadow (*praticchāyā*) of a person exhibits certain kinds of abnormalities (if it is ‘severed, torn, confused, diminished, exceeded’) then he is not a human being but a spirit, or he will soon die.⁶³ Even insanity can be caused by the spirits, according to *Caraka Saṃhitā*.⁶⁴

Furthermore, if a sick person eats too much and passes very little urine and stool, then he is a ghost as *Caraka Saṃhitā* mentions.⁶⁵ In some places, Caraka describes the condition of the patient as “like a ghost”,⁶⁶ but the demarcation between ghost and the ghostly is not clearly stated. This particular ambiguity also follows the general typecast of Hinduism.

Dynamics of Change

During Muslim rule in India (711 AD -1707 AD) *Āyurveda* continued its legacy along with the *Unani* (Greek) or *Hekimi* (Ancient wisdom) medicine. When the British arrived, initially the British colonial Government had no intention of intervening in the field of indigenous medicine. The Indians, as “Native Doctors”, were employed in hospitals, where they continued traditional practices. During the first two decades of the nineteenth century there was no dispute between *Āyurveda* and Western medicine. The situation began to change from 1835 onwards, when the Raj started to place emphasis on Western civilization and language and made several colonialist attempts to discard the *Āyurveda*. The British surgeon of the Bengal Army, Allan Webb, in a lecture delivered at the Calcutta Medical College in 1850, stated, “The Anatomical system of the

⁶² Ibid, p. 496, *Indriyasthānam*, 2nd chapter, *śloka* 8-16.

⁶³ Ibid, pp.509-511, *Indriyasthānam*, 7th chapter, *śloka* 4, 9, 7, 21-26, 27-31.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

ancient Hindoos was precisely superficial...The venerated father of Medicine, the great HIPPOCRATES, who lived nearly a thousand years before SUSHRUTA wrote, had a much more just conception of anatomical science than he..."⁶⁷ Webb also stated that both Hippocrates and Plato "declare (B.C. 470) the humors of the body to consist of four, blood, phlegm, black and yellow bile", before Caraka and Susruta.⁶⁸

According to Webb, the relationship between Hindu religion and medicine is not unique, as a similar relationship is reflected in Greek theology. He emphasized the principles of Galen, successor of Plato and Hippocrates, and firmly opined, "Yet a general belief in the hot and cold inherent qualities of medicines at this day pervades the whole of India. The most illiterate *cooly*, as well as the most learned Pundit, explains the action of medicines upon this Galenical principle only."⁶⁹ He believed that the Greeks never borrowed ideas from Hindu religion and philosophy, and that the "analogy between the Hindu and Greek systems of medicine is certainly much too close to be the result of accident", implying that the Hindus must have borrowed from the Greeks.⁷⁰ But others among the British officials and scholars spent their time exploring *Āyurveda*. Sir William Jones, John Fleming, Robert Wight, Kanny Lal Dey, and R.H. Beddome wrote articles on Indian drugs and Botany from 1790–1869.⁷¹ Many indigenous medical practitioners or *Vaidyas* wrote books on *Āyurveda* to prove its excellence. Amongst them, one notable person was *Kobiraj* Gangaprasad Sen, who published *Ayurved Sanjivani*, the first vernacular journal of Ayurveda.⁷² In this journal he highlighted the treatise of *Āyurveda* with special emphasis to Ayurvedic medicine. The contemporary vernacular newspapers like *Anandabazar Patrika*, *Pataka*, etc. gave favourable reviews of this book, perceiving it as an attempt to revive the glory of *Āyurveda*. Gangaprasad even exported Ayurvedic medicines overseas and earned an immense amount of money and repute.

⁶⁷ A) Gupta, Brahmananda- '*Indigenous Medicine in Nineteenth and Twentieth Century Bengal*,' published in Charles Leslie (Ed.), '*Asian Medical Systems: A Comparative Study*,' pp.368-377, California, University of California Press, 1976. B) Webb, Allan, - '*The Historical Relations of Ancient Hindu with Greek Medicine, In Connection With the Study of Modern Medical Science in India, Being A General Introductory Lecture*,' Delivered in June 1850 at the Calcutta Medical College, p.7.

⁶⁸ Ibid, p.11.

⁶⁹ Ibid, p.16.

⁷⁰ Ibid, p. 9.

⁷¹ Mukharji, Projit Bihari – '*Pharmacology, 'indigenous knowledge,' nationalism: A few words from the epitaph of Subaltern Science*' (pp.195-212), published in '*The Social History of Health and Medicine in Colonial India*', edited by Mark Harrison and B. Pati, Primus Books, India, 2011.

⁷² Ibid.

Another *Kobiraj*, Bijoyratna Sen, excelled both in *Āyurveda* and allopathy, even using allopathic formula to prepare some of his medicines.⁷³

It is a well-known fact that numerous vernacular journals and newspapers of the colonial period tried to promote *Āyurveda* according to the dynamics of socio-political changes. It was also an effort to glorify Hindu religion, since *Āyurveda* was intimately connected with *Vedic* religion. The journals like *Chikitsa Sammilani*, *Chikitsok-o-Samalocho*, *Swathya* and others focused on the importance of *Āyurveda*. For example, the journal *Swasthya* wrote in 1900:

The world today is flooded with the light of *Āyurveda*, pure and clean like the sun just emerging from behind the clouds. Not only Indians, it is now attracting the attention of reputable practitioners of the western school of medicine. Many of them have been struck with wonder and astonishment realising the learning intellect and range of research area as evinced by authors of *Āyurveda* like Caraka...⁷⁴

Dabur India Limited – *Āyurveda* goes Global

Dabur India Limited is one of the oldest business groups in India, starting its journey in the year 1884. The founder of this group was Dr. S. K. Burman. The main objective behind the establishment of Dabur was to manufacture *Āyurvedic* drugs. Dr. Burman founded a small unit for this purpose in 1896. His successors turned out to be more ambitious in this regard and set about creating a market for *Āyurvedic* medicine to fulfill the needs of the natives.⁷⁵

In 1919, Dabur established a Research and Development Laboratory to pursue research on *Āyurvedic* medicines. The Company emphasized the authentic manufacture of *Āyurvedic* medicines as depicted in the ancient texts and tried to preserve their healing qualities. From 1936 onwards the Company was known as Dabur India Pvt. Ltd.⁷⁶

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Ray, P and Gupta, H.N. – *Caraka Saṃhitā* (A Scientific Synopsis), National Institute of Sciences of India, New Delhi, 1965, p.6

Analysis

It is not the intention in this paper to glorify the Hindu religion or the ancient Indian medical tract, *Āyurveda*. The reason for choosing *Caraka Saṃhitā* is that it is the most authentic and popular text on *Āyurveda*. *Caraka Saṃhitā* deals with philosophical rationalism and has borrowed many ideals from Indian philosophy based on *Samkhya* and *Vedānta*.

As already demonstrated, this text describes Indian morals and values. Life according to Caraka has four types: *sukhamayuh* (happy life), *asukhamayuh* (unhappy life), *hitamayuh* (good life) and *ahitamayuh* (bad life). The concepts of happy and unhappy, good and bad are embedded in Hinduism and also in closely related religions like Buddhism. For this reason *Caraka Saṃhitā* has a link with the latter.⁷⁷

Some sections of the text propound irrational beliefs and superstitions. But on the whole there is no fundamental contradiction between religion and empirical medicine as the treatise goes on. Perhaps this is an attempt to give more nuance to perceptions that Indian religion only reflects unscientific and irrational ideas. *Āyurveda* or the science of life originates from the *Atharvaveda*, an important component of the Vedic literature, the scriptural canon of Hinduism.

In the *Caraka Saṃhitā* there are sections on ‘Excision, incision, puncturing, removal of skin-layer, cauterization, surgical removal, rupturing, probing and other surgical methods.’⁷⁸ The removal of a dead fetus and an operation for peritonitis has been highlighted in some detail; scalpels, metallic probes, etc. were used in such processes. Furthermore, the use of live ants of the big variety to grip together and hold tight the skin-flaps after an internal operation has also been mentioned.⁷⁹ All these examples challenge those Western conceptions of *Āyurveda* as having only superficial knowledge of anatomy.

⁷⁷ Ray, -p.24.

⁷⁸ Ibid.

⁷⁹ Sharma, vol- II, *Chikitsāsthānam*, *passim*.

While *Caraka Saṃhitā* gives us some ideas about *Āyurveda*, it is not by itself a sufficient basis on which to understand this particular medical science. *Āyurveda* is a vast system of knowledge which demands many years of dedication and research into numerous sources. This paper is just a prelude to this discourse.

The colonial construction of *Āyurveda* has already been a topic for research. But the relevance of *Āyurveda* in the context of globalization, particularly the role of Indian pharmaceutical companies, must be highlighted here to give a deeper understanding of how the relationship between religion and science changes as it is shaped by the socio-political and economic forces of globalization.

There are numerous Indian enterprises basing their business on this ancient Indian medical tract, *Caraka Saṃhitā*. Amongst them Dabur is the most popular and successful as the records have shown. Without attempting to glorify or exaggerate *Āyurveda* it can be said that it is recognised in India as an important branch of alternative medicine.

In ancient India, the science of *Āyurveda* was especially dedicated to kings and their families. For example, the main objective behind the science of toxicology or *Agadatantra* was to investigate the presence of any poisonous element in the food of the king. Another example, *Vājīkaraṇa* dealt with youthfulness and vigour during the time of intercourse, and how to get a healthy child, especially a male one, as the ancient Hindu rulers were always concerned with having an able successor who could continue his legacy. The “Gold Medicine” in *Āyurveda* was intended for the monarchs, as the masses could not afford it. The ancient rulers used to patronage the eminent *vaidyas* and gave them opportunities to write more on *Āyurveda*.⁸⁰

These *vaidyas* recorded many things based on their experience. They followed the Vedic style of writing in verses or *ślokas*. They registered numerous symptoms and effects of various diseases. But it was not possible for them to justify all the things which they had witnessed. For this reason, these medical practitioners put certain things under the heading of *bhūtavidyā*, which deals with human psychology. Here they even discussed dreams and how specific dreams indicate certain

⁸⁰ *Aṣṭāṅga Saṃgraha* of *Vāgbhaṭa* (vol- III), *Uttarasthāna* – Translated by K. R. Srikantha Murthy, Chaukhambha Orientalia, 2000, p.87.

disease-borne deaths. In our present-day context, such things are hard to believe and it is quite natural to write all these cases off as superstition. However, according to contemporary *vaidyas*, all these were the reflections of mental imbalance, which can be caused by *adhija unmada*⁸¹ or incapability to attain the desired goal. Thus it is possible that the ancient *vaidyas* prescribed specific psychotherapies to treat the mental illness. For this reason, the wearing of amulets became important. It was mentioned in the *Nidanasthanam* of *Caraka Saṃhitā* that cures for madness include chanting hymns or *mantras*, wearing precious and semi-precious stones, auspicious rites, offerings, tributes, oblations, religious rules, vows, propitiation, fasting, blessings, prostration, visit to pilgrimages etc. (śloka number 16).⁸² In this connection it is important to define psychotherapy for a more complex understanding of the above-mentioned subject. Literally, psychotherapy means “mind-healing”. In practice it is the treatment of disorders by using psychological methods – in addition to, or instead of, purely medical procedures. Today the term “psychotherapy” includes many different forms of help given by trained professionals to individuals or groups of people. Caraka lays stress on mental health because it is important for speedy recovery from diseases, and also for living a good life. Even in the World Health Organisation (WHO) definition of health, a similar thought is reflected. It defines health as “a state of complete physical, mental and social well-being, and not merely the absence of disease.”⁸³

For this reason, in some cases, the wearing of amulets and other similar practices become important in *Āyurveda* just to pacify the unstable mind, as the modern *vaidyas* opine. They make a link between psychotherapy and religion. Even in modern Palliative Care, which is an essential part of cancer treatment, physicians assign great significance to “spiritual and psychosocial support”. According to some scholars, in *Āyurveda*, the physician performs as healer, not as a repairer. For this reason, *Āyurveda* is also called the science of longevity.⁸⁴

⁸¹ A) Ibid B) Benson, C. Nigel, Loon, Van Borin, - ‘*Introducing Psychotherapy*,’ Icon Books Ltd., UK, 2006, pp.4-5.

⁸² www.thewho.com/, the Official Website of the World Health Organization.

⁸³ A) Ibid. B) Benson, C. Nigel, Loon, Van Borin, - ‘*Introducing Psychotherapy*,’ Icon Books Ltd., UK, 2006, pp.4-5.

⁸⁴ Sharma, - Vol.II, p.3, *Cikitsāsthānam*, 1st chapter, sloka 7

Against this backdrop, it can be said that the relationship between religion and ancient Hindu medicine is intimate, which is perhaps also a reason for the popularity and acceptability of the latter. It is true that some socio-anthropological terms like ageing also have their roots in *Āyurveda*:

जीर्घमायुः स्मृतिं मेधामारोग्यं तरुणं वयः । प्रभाबर्णस्वरौदार्यं देहेन्द्रियबलं परम् ॥७॥

dīrghamāyuh smṛtiṃ medhāmārogyaṃ taruṇaṃ vayah/ prabhābarṇasvaraudāryaṃ
dehendriyabalaṃ param //7//

This particular verse says, longevity, memory, intellect, and disease-free life are the outcomes of young age.⁸⁵ With the help of *Rasāyana* and *Vājīkaraṇa*, ancient people wanted to rejuvenate their physical strength, since it was needed in a patriarchal society based on polygamy.

From a methodological perspective, this paper pertains to religious studies as well as history of science. According to J. Milton, “religion, when it is being examined with the framework of science, is dealt with as part of the natural world, subject to the laws of cause and effect and the rules of logic”. The present researcher has applied heuristic procedure and hermeneutic processes to the analysis of Hinduism and its relation to Caraka Saṃhitā.⁸⁶

In the present context, which explores the relationship between religion and science, it is worth pointing out that attempts to systematically study religion necessarily lead to methodological pluralism, because religion is a multi-faceted phenomenon. The four components of the study of religion, which also play a vital role in methodological pluralism, are:

- a) Doctrinal Analysis – understanding the divine through human language and concepts
- b) Social Expression – understanding religion as part of society’s interpersonal and group-based interactions
- c) Subjective Experience – a study of the felt character or peculiarities of religious experiences

⁸⁵ www.cuea.edu – ‘Guidelines for Research Methodology- Religious Studies,’ pp.1-19.

⁸⁶ Andresen, Jensine, Forman, Robert K.C. Forman – Methodological Pluralism in the Study of Religion, Journal of Consciousness Studies, 7, No. 11 -12, 2000, pp.7-14.

- d) Scientific (Objective) Research – focusing on the facts and free from any bias or reservation ⁸⁷

On the other hand, history of science forms an important branch of science education, which has an interdisciplinary character. Philosophy of science and history of science provide thought patterns to analyse the nature of science critically, and the particular contribution of science to understand the world, i.e. nature and technology. More importantly, pedagogical and empirical traditions also have contributed to the growth of science research education.⁸⁸

Nowadays in India, Ayurvedic medicines are no longer the preserve of the royals, but they have become a commodity for the masses and a product for total health care. This socio-economic change corresponds with a change in its relationship with Hindu religion: in ancient *Āyurveda* religion played an important role but in contemporary products it plays only a nominal role. It is a complete package, ideal for the global consumer market. Perhaps this commercial stance weakens the basis of this system depending on the Hindu religion and ethos. It is highly doubtful whether pharmaceutical companies strictly follow the guidelines as mentioned in this ancient text to preserve the healing qualities of the Ayurvedic drugs. Gerrit Jan Meulenbeld has categorized changes with reference to Indian pharmaceutical companies as follows:

...the decline of knowledge with respect to the identity of medicinal substances; the change of identity of plants designated by means of a particular name; the appearance of new names and synonyms; the use of substitutes for drugs which had become rare; the introduction of new drugs.⁸⁹

Further research in this direction is required. From the medical perspective, the *Āyurveda* has witnessed many transformations. On the one hand, diseases like syphilis were previously absent, but appeared in the 16th century as *Phiraṅgaroga* in Bhāvamiśra's *Bhāvaprakāśa*. On the other

⁸⁷ Duit, Reinders – Science Education Research Internationally: Conceptions, Research Methods, Domains of Research, *Eurasia Journal of Mathematics, Science & Technology Education*, 2007, 3(1), pp. 3-15.

⁸⁸ Gerrit Jan Meulenbeld, 'The Surveying of Sanskrit Medical Literature' in G J Meulenbeld edited 'Proceedings Of The International Workshop On Priority In The Study Of Indian Medicine' Forsten, Groningen, 1984, pp. 37-54

⁸⁹ Bridget and Raymond Allchin, *The Rise Of Civilization In India And Pakistan*, CUP, 1996, First South Asian Edition, p. 214.

hand, some of the diseases and ailments described in the old texts gradually disappeared. Regarding diagnosis practices, the examination of urine (*mūtraparīkṣā*) started from the 11th century onwards, and *ṇādīparīkṣā* or pulse examination was initiated from the 13th century as the Sanskrit texts have shown.

A specific diagnostic technique called *aṣṭasthānaparīkṣā* (examination of the eight bases), which meant a routine check-up of pulse, urine, faeces, tongue, eyes, general appearance, voice and skin of the patient, became common practice from the 16th century onwards but is not previously recorded. More importantly, “the explosive growth of standardized compound medicines (yoga)” was one of the most significant changes over the ages in regard of Ayurvedic therapies as the scholars like Meulenbeld have opined.

Lastly, *Āyurveda* exhibits the features of the Aryan civilization, dominated by the male priests or *Brahmanas*. While *Caraka Saṃhitā* mentions women, it is difficult to find any references to the *Shudras* or the untouchables, who belonged to the lowest stratum of the social structure. It is not known whether these people were treated by the *vaidyas* (who were mostly *Brahmanas*) or had the eligibility to practice *Āyurveda*. On the other hand, as the untouchables or the lower castes like the *Santhals* or *Mundas* have their own medical systems, they hardly consult any other, including the modern allopathic medicine even in the 21st century. Thus their relationship with the modern *vaidyas* is a subject of detailed survey and investigation and we need more research in this direction. More importantly, during the colonial period, the importance of *Āyurveda* gradually declined and the British government chiefly relied on Western or modern medicine. After India’s independence, the newly formed government had no specific agenda to promote *Āyurveda*, and still this ancient medical system is not universally followed and has limited access. The modern Ayurvedists are not only concerned to overcome regional and sectarian differences in search for a uniform identity, they also place emphasis on the new system of education and training which has its root in the colonial past (Traditional Indian Systems of Healing and Medicine: Ayurveda by Dagmer Wujastyk, a pre-publication version of the article, ‘Healing and Medicine in Ayurveda and South Asia’ in Jones, Lindsay (ed.) ‘Encyclopedia of Religion, 2nd Edition, MacMillan, New York, 2005: 3852-3858).

Thus, the health condition of the masses or the ordinary people perhaps failed to attract the attention of Caraka. The contribution of the people of the Indus Valley civilization, who came prior to the Aryans, is also a matter of interest. The usage of amulets might indicate a historical continuity, as it was common amongst the dwellers of the previous civilization. In *The Rise Of Civilization In India And Pakistan* Bridget and Raymond Allchin write: “From the seals, seal impressions, amulets and copper tablets, we may derive a series of items which must belong to the religious iconography of the Harappans.”⁹⁵ But it is not very clear to the author whether these amulets were also used for other purposes like beautification or ornamentation. We need more research in this direction.

In view of the overall theme of this collection I would like to end this chapter with the note by the famous Hungarian psychiatrist, T.S. Szaz: “Formerly when religion was strong and science weak, men mistook magic for medicine; now, when science is strong and religion weak, men mistake medicine for magic.”

About the Author

Dr. Tinni Goswami has a Masters degree and PhD from Jadavpur University, Kolkata, and her thesis was published in New Delhi in 2011. She has presented research papers in various European and Asian countries and published numerous research articles in India and internationally. She was a JRF of the Indian Council of Historical Research from 2006 to 2008, a Fellow of The Asiatic Society from 2010 to 2013, and a UGC Research Associate at Women’s Studies Research Centre, University of Calcutta, from 2013 to 2014. Dr. Goswami is currently Assistant Professor and HOD of History at St. Xavier’s College (Autonomous), Kolkata, Raghobpur Campus. She also works part-time on the staff of the Post-Graduate Department of History, Jadavpur University. Her research interests lie in the fields of history of gender, cultural and regional history, history of science, technology and religions, history of public health and history of education in West Bengal.

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