

Translations, the Making of New Curricula and Epistemological Mutations of Āyurvedic Medical Knowledge in India in the Early Nineteenth Century*

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In Lieu of an Introduction

At the time of the colonial conquest of India in the mid-eighteenth century, European medicine was not particularly elegant, or anything the British could boast of as being superior to the native systems. Let us examine one example. Jagat Seth (Jagat Śeṭh),¹ one of those who wholeheartedly colluded with the British in the overthrow of the Nawab of Bengal in 1757, complains in a letter of his shoulder being ‘disjointed’, and that ‘I have not got the use of my arm’ (LONG 1869: 234). The British medicines sent for his cure were some kind of ‘oil and extract of horn and other medicines wrapt in paper for the cure of Jug-gut Seat’s arm dislocated by his foot slipping’ (LONG 1869: 234). The receivers were at a loss as to what to do with these, and begged for instructions.

A different experience of John Martin Honigberger, in the 1830s, can also be cited here. He reported (HONIGBERGER 1852: 49f.):

I introduced to our distinguished guests, Col. Wade and Dr. Murray, an Akalee or Nahung, whose nose, ears and hands had been cut off by order of Runjeet Sing (he had even deserved the gallows), and whose nose had been so well restored in the mountains that we were all surprised, and confessed it could not have been better done in Europe. As we know, from history, this operation was even in the remotest antiquity, practised by the Hindoos; and they formed the nose out of the cuticle of the forehead, which proceeding is now, and always will be the same.

* This study presupposes knowledge of, and hence does not comment upon, the tussle between the ‘Orientalist’ and ‘Anglicist’ factions within the British administration of India at the time under consideration here – a tussle in which the latter faction carried the day. The developments described below clearly, and increasingly with the progress of time, show the stamp of this outcome.

¹ Actually, this is the title (‘Banker to the World’) the acting head of a famous family of Marwari bankers in Bengal carried. The Jagat Seth cited here was named Mah’tāb Cāmd.

Besides rhinoplasty, practised among low caste people of India as a family craft for generations,² the native way of cutting stones and couching cataracts were further important indigenous surgical methods with which the British made acquaintance. Moreover, during the initial days of colonisation, Indian botanical, herbo-medical and chemical knowledge became a point of great curiosity and learning. However, with the passage of time, prevalent Indian medical and surgical practices of the time became an object of utter ridicule and an indicator of attainment of a lower rung on the scale of civilisation.³ ‘By 1830 the Directors [of the East India Company] had quite lost their old respect for Indian learning and culture’ (SPEAR 1938: 84).

This was, however, not based merely on apparent scientific considerations. As C.A. Bayly succinctly points out (BAYLY 1999: 281):

When the British denounced Indian backwardness in theory, they meant their continued adherence to Aristotelian humoral notions which had only recently been abandoned in Europe. The insecurity of European knowledge was a potent element in their rages.

Zhaleh Khaleeli comments upon the same (KHALEELI 2001: 80):

Therefore despite an acknowledgement by these [British] scholars of the ‘originality’ of Hindu medicine, and the advanced state of development of Hindu lore in India, their emphasis on recent declines ensured that the British sense of superiority was maintained and even enhanced. In India, the period of military struggle was drawing to a close; the British began to assume a new sense

² One of the first cases to elicit British interest is that of the replacement, in 1792, of the nose of a certain ‘Cowasjee’ (see, e.g., JOSEPH 1987: 217-219).

³ Cf. the statement of John Mackay in 1837: “‘Native surgeons,’ strictly of native education, are worse than useless, being mere empirics’ (*Report from the Select Committee*: 193). Not only native medicine, but native science in general came to be – at least in some quarters – viewed with contempt: “From Oriental science we have little to expect. To compare it with that of Europe is like comparing the toys of children to the finished performances of men” (TYTLER 1830: 1). As late as 1958, H.J.C. Larwood opines: ‘After the twelfth century western science alone progressed and only the vestiges of earlier knowledge, together with a variety of technological and metallurgical skills persisted until the time when British rule was established’ (LARWOOD 1958-1959: 36).

of security in their position, so that a discourse of intellectual hegemony replaced displays of military might. [David] Arnold comments that the body was a microcosmic representation of this process, used by colonial authority ‘as a site for the construction of its own authority, legitimacy and control.’

As modern medicine gradually consolidated its new epistemological and ontological characteristics, jettisoned from its humoral legacy, Āyurvedic nosology, pathology, disease prognosis – all taken together and premised on the theory of *doṣa-s* – were outright rejected. The continuing struggle between Āyurveda and modern medicine began to take place, and indeed continues until today. In this article, our basic point of interest and focus is how the elemental tenets of Indian medicine – to speak of Āyurveda only, and not Yūnānī or Siddha medicine – have been reconstituted. Moreover, it may be intriguing to know the mechanisms and motives behind them, following the introduction of European or modern medicine in India.

Gerrit Jan Meulenbeld reminds us (MEULENBELD 2011: 35f.):

The theory of āyurveda is intricate, the differences of opinion on all kinds of topics are numerous and the basic concepts together with the ways in which they are interconnected are far from transparent. ... Inconsistency of the texts has to be accepted as an undeniable fact. Yet, most Indian āyurvedists sternly refuse to accept such an opinion ...

The inconsistencies and ellipses inherent in Āyurveda turned out to be visible fissures through which manifold insinuations and novel explanations of texts became possible. Āyurveda, in the course of time, seemingly became a scholastic high-caste Hindu medical and theoretical trope, though historically the relationship between Hinduism and Āyurveda is not so fixed (DAS 2014: 1523):⁴

Ayurveda was not, and is not, “Hindu” medicine as such, although because of the predominance of Hinduism in its region of origin and spread, it is undoubtedly diffused with corresponding elements and also offers various points of contact with nonmedical Hindu traditions both literary and nonliterary.

The problematics of theory may be well illustrated by the example of the Ā-

⁴ See also CHATTOPADHYAYA 1977: 1-45.

urvedic doctrine of three *doṣa*-s. This often appears in the literature on Āyurveda as a parallel to the humoral theory of Greek medicine. But a number of eminent scholars like Reinhold F.G. Müller, Meulenbeld himself, Rahul Peter Das and Hartmut Scharfe have refused to equate *doṣa*- and ‘humour’.⁵ In a narrow technical sense, we speak of three *doṣa*-s called *vāta*- (literally ‘wind’), *pitta*- (literally ‘bile’) and *kapha*- (literally ‘phlegm’). However, blood was seemingly counted as the fourth *doṣa*- in some old schools (DAS 2003a: 549, 577), though over time the idea of three *doṣa*-s prevailed (MEULENBELD 1991).

‘The word *doṣa*- may literally mean “vitiator”, to corrupt or make ineffective;⁶ however, the three *doṣas* play important roles in many respects’ (CHOPRA 2003: 77). They are described thus (CHOPRA 2003: 78):

The *doṣas* regulate physiological processes, but they may also initiate pathological processes. ... The qualities associated with the *doṣas* are important for dietetics and therapy as actions or drugs of the opposite quality treat the respective *doṣa* increase. Day and night are respectively divided into three equal parts dominated sequentially by *kapha*, *pitta* and *vāta*. The same applies to the digestion process, which has three phases regulated by *kapha*, *pitta* and *vāta* respectively. Stages of life and seasons are also described by using the *doṣas*.

But the boundaries between *doṣa*-s and other substances, particularly those referred to as *dhātu*-s, are far from sharp in many respects. Meulenbeld notes that there are three characteristics of a *doṣa*-: (1) when in a corrupted state, *doṣa*-s coalesce with one or more of the *dhātu*-s leading to a necessary step in the production of a disease; (2) *doṣa*-s are characterised by *ārambhakatva*- as well as *karṭṛtva*-; (3) a *doṣa*- possesses *prakṛtyārambhakatva*-, namely the ability to determine the constitution of a human being (MEULENBELD 1992: 4f.). However, these characteristics, as well as others described by Meulenbeld, are not

⁵ The problem of adequately translating *doṣa*- does not arise in medical contexts alone. As a case in point, cf. COVILL 2009: 119-122.

⁶ Hartmut Scharfe is of the opinion that *doṣa* as, originally, referring to an affliction, is caused by the influence of the three *guṇa* s of Sāṅkhya philosophy ‘at a time when the two Sanskrit words had become antonyms in general usage: *guṇa* “quality, virtue,” versus *doṣa* “fault”’ (SCHARFE 1999: 629).

all specific to *doṣa*-s only; he therefore concludes that (MEULENBELD 1992: 5)

if the *Samhitās* do indeed presuppose a characteristic distinguishing a *doṣa* from other constituents of the body, in particular the *dhātus*, it is the combination of *ārambhakatva* and *prakṛtyārambhakatva*. This conclusion does not imply that the term *doṣa* can be employed with respect to *vāta*, *pitta* and *kapha* only, since *ārambhakatva* and even *prakṛtyārambhakatva* can be applied to blood as well, which of course brings up the problem of whether blood too might not have been regarded as a *doṣa*.

The *tridoṣatattva*-, or theory of three *doṣa*-s, is also intricately related to the natural world itself (ZIMMERMANN 1999: 20):⁷

Ecology was an integral part of this practical context. ... My own hypothesis is that one of those functions absorbed the other so that Ayurveda represents two sciences in one: a biogeography absorbed into a therapeutics. The texts invite a double reading, or, to put it another way, one text is enmeshed in the other: a discourse on the world (natural history) is contained within a discourse on man (medicine).

This becomes quite evident from *Suśrutasamhitā*, Sūtrasthāna 21,8:

*visargādānavikṣepaiḥ somasūryānilā yathā
dhārayanti jagad dehaṃ kaphapittānilās tathā*

As moon, sun and air/wind support/maintain the world through emission/releasing, absorption/receiving and imparting motion/dispersing, so [too] *kapha*-, *pitta*- and *vāta*- the body.

It is, therefore, not surprising that MEULENBELD 2011: 35 stresses: ‘Intimate knowledge of āyurvedic theory is in my view an absolute requirement for any serious research on texts relating to Indian medicine.’⁸ Earlier, in his most cele-

⁷ Cf. also DAS 2014: 1525: ‘The individual is embedded not only in a human entity but also in the physical surroundings, within a holistic framework. These surroundings impinge in multiple ways, including not only ingestion but also sensual perception, on the individual’s body and through this the embedding human entity ...’

⁸ As a case in point, it is highlighted that ‘the evidence concerning the elements of the body in Indian medical theory demonstrates that these elements are of greater importance for an ade-

brated work, Meulenbeld had noted (MEULENBELD 1999: 2):

Indian medicine is thoroughly embedded in the culture of the subcontinent and cannot adequately be studied and understood without acquaintance with its history and ways of thought. Conversely, knowledge of medical concepts will certainly illuminate problems that would otherwise remain obscure.

But things began to change after the arrival of Western medicine and its consolidation through various institutions and concomitant social processes, especially after the foundation of the Calcutta Medical College (MEULENBELD 1999: 2):

The renaissance of āyurveda since about the middle of the nineteenth century – a historically fascinating phenomenon – made its protagonists and their epigones feel called upon to sketch a profile of this science that would be serviceable in the competitive struggle with Western medicine. The revival thus led to the construction of a unitary and coherent model of Indian medicine The ancient terms for physiological and pathological processes, nosological entities, etc., were diligently re-interpreted to bring them into line with terms derived from Western medicine.

We may take a little pause here. Meulenbeld, in his analyses, takes into consideration various aspects of interactions between society and Āyurveda such as the specificity of Indian culture, and ingrained fissures in the understanding of Āyurveda and its theoretical as well as philosophical reconstitution during the so-called ‘Indian renaissance’⁹. Of course, change was an ongoing process.

quate nosography than suggested by the tridoṣa-doctrine as generally presented’ (MEULENBELD 1991: 102).

⁹ This is a problematic term, since it seems secondary to the well-known ‘Bengal Renaissance’. The problem of delimiting the two is perhaps best exemplified by the contrast between the primary and secondary title of David Kopf’s seminal work (which does not introduce, but uses the already established term ‘Bengal Renaissance’), the first referring to the ‘Bengal Renaissance’, the second to ‘Indian Modernization’ (KOPF 1969). Whereas the ‘Bengal Renaissance’ as a subject of study is well established and categorically delimited, the ideologically in various aspects different ‘Indian Renaissance’, by contrast, remains a vague category; in fact, much of the literature on the latter deals with the *contemporary* emergence of India. The problem may be exemplified by MAJUMDAR/MAJUMDAR/GHOSE 1965, which introduces the

Thus, Meulenbeld points out that a new branch of Āyurveda *nādisāstra* suddenly appears in the thirteenth and fourteenth centuries, whereas on the other hand, as part of ‘the process of transformation of Āyurveda’, there was a ‘decline of surgery and, closely bound up with it, of anatomical knowledge. Surgical procedures like blood-letting and cauterization fell into disuse’ (MEULENBELD 1995: 6f.).

Das, too, points out that in the course of time the “classical” Indian medical texts came to be supposed to contain all the necessary theoretical discussion on anatomy and physiology, and it is thus not surprising that later works have occupied themselves more and more primarily with diseases, their symptoms and cures’ (DAS 2003a: 312). The stagnation that both Meulenbeld and Das allude to made it possible that, at least to our understanding, the theoretical discussions on anatomy and physiology in Āyurvedic texts became the area where European anatomical and surgical knowledge could etch out their superiority.

Further, Das cautions us about uncritically equating *āyurveda*- with ‘medicine’ in the modern Western medical sense, since the former by origin encompasses much more than the latter; he suggests to regard the term ‘as an approximation and not as an equivalent of what one normally understands as medicine in the West today’ (DAS 2003b: 32). Indeed, the matter of equivalences represents a major problem. A case in point is the use of the term *disease* to reproduce native Indian terms which might possibly have different semantic connotations. For instance, according to EMMERICK 1993: 88 *roga*- (Vedic *rōga*-) is ‘a local morbid symptom’ in ‘classical Indian’ usage. As is pointed out there, the Sanskrit terms mostly cited as meaning *disease*, *roga*- and *vyādhi*-, are derived respectively from \sqrt{ruj} break and \sqrt{vidh} pierce. This indeed points to an acute onset of something localised, which is a category different from the English *disease* which primarily signifies a lack of ‘ease’, i.e. distress or discomfort. Moreover, the categories underlying individual Sanskrit words, too, can be different; cf., e.g., the remarks of DAS 2003b: 31 on the different conceptual frameworks of *svāsthya*- and *ārogya*- both reproduced, inter alia, as

term ‘Indian Renaissance’ to a wider audience, but treats predominantly on Bengal – not surprisingly, since the editors are all Bengalis.

‘health’ in English and the implications thereof.

On these lines, in his more recent observations Das also draws attention to (DAS 2014: 1527)

apologetic attempts to import biomedical classifications into traditional medical systems. Prominent examples from Ayurveda include, for instance, *kuṣṭha*, which refers to various skin disorders but is today generally equated with leprosy; and various types of swelling (*granthi*, *arbuda*, *gulma*, etc.), which are equated with different forms of cancer. In line with this are neologisms created from Sanskrit elements for disease entities of biomedicine so that they can be integrated into Ayurveda.

In DAS 2011, he has examined problems arising from the import into Āyurveda of Western models not only for disease classifications and aetiologies, but even for anatomical descriptions. In the following, we shall take up this thread.

Āyurveda Meets Modern Medical Notions

By the eighteenth and nineteenth centuries, a major portion of the practical material of Āyurvedic texts was no longer practised. For example, the surgery and “dissection”¹⁰ described in the texts, especially in the *Suśrutasamhitā*, had been entirely abandoned, whereas the Sanskrit verses describing them were still memorised and speculated about, as a source first published in 1923, seemingly superioritising textual knowledge, tells us (MUKHOPADHYAYA 1974: 14):

The traditional system of training Kabirajes which has lasted for many centuries in Bengal, has always been exclusively literary in character. The Vaidyas learn [sic] their medical science mainly from books and from oral tradition from the *Gurus* – the learned physicians of the time, who generally taught a number of students without fees. Similar practice still exists in the ‘*Tols*.’

What is not explicitly mentioned here, but inadvertently implied by ‘oral tradition’, is that the impartation of practical knowledge, too, was a non-systematised and individual-based process. This tacit knowledge was contrasted to the technical knowledge the British brought with them, and differences could not but become apparent (LESLIE 2009: 50):

¹⁰ Why quotation marks have been used here will become apparent from pp. 45ff. below.

Technical knowledge is highly teachable. It can be explicated in textbooks and manuals and organized into courses or other units of study arranged in sequences of increasing complexity and inclusiveness. Thus, it can be standardised Tacit knowledge cannot be explicated with the effectiveness of technical knowledge; it must be learned by imitating the example of a master. This is one source of the moral bond between teacher and student, and the legitimate foundation for the ritualization of professional training. Tacit knowledge lends mystery to a profession and enhances its authority.

De-individualisation gradually influenced Āyurvedic teaching too, and insidious changes began to occur within the matrix of Āyurveda which reconstituted its very nature. A new kind of Āyurveda, neo-Āyurveda or *navyāyurveda*-, emerged through reconstruction of the basic tenets of Āyurveda.

The British well understood the importance of the cultural, social, political, economic and philosophical impact of Āyurveda and Yūnānī. Hence, up to the early part of the nineteenth century they tried in every way to avoid confrontation with these systems of healing. However, with the advancement of modern science and medicine and their strong institutionalisation, everything had undergone radical change. Contrarily, Āyurvedists increasingly became aware of their inferior position with respect to anatomical knowledge and organ localisation of disease from the perspective of modern medicine. Such realisation led to the gradual reconstitution of Āyurvedic practice and knowledge systems. The primary concern of Āyurvedists was what was perceived as a theoretical deficit in anatomical, pathological and physiological knowledge. They appeared to accept the statement of a letter, dated 1825, by Peter Breton, superintendent of the Native Medical Institution in Calcutta: ‘Of all the sciences studied by the Asiatics, that of anatomy and medicine, is the least understood and cultivated ... (ANONYMOUS 1826a: 24).

In a similar vein, though at a period at the close of the nineteenth century (probably in 1892), we find the following derisive and dismissive commentary (BHATTACHARYA 2004: 33):

A differing contemporary ‘elite’ account is provided by Dwijendranath, the eldest brother of Rabindranath Tagore. “Treatment by any means is a wild goose chase! So better not to say anything about *kaviraji chikitsa* (Ayurvedic treatment) – even the shimmering rays of nineteenth century knowledge has

[sic] failed to penetrate its windows.” Dwijendranath continues, “Modern medicine starts with dissecting a corpse, Ayurveda starts with elaborating on [the] relationship between the body and mind.” But inspired by ‘modernity’ he uses innovatively the categories of Ayurveda like *vayu*, *pitta*, *shlesma* (wind, bile, and phlegm) to interpret the superiority of [the] Western intellect. Finally he concludes, “By the raging light and scorching heat of English education orthodoxies began increasingly to be banished from [the] metropolis to the fringe of villages.”

However, it should be noted that despite this scathing criticism Dwijendranath Tagore (Dbijendranāth Ṭhākur) does not abandon the *tridoṣa*- framework, as evinced by his innovative characterisation (already alluded to above) of Rousseau and Voltaire as having a predominance of *vāyu*-, and Robespierre and Danton as being under the predominance of *pitta*- (ṬHAKUR n.d.: 29).

Later, Gananath Sen (Gaṇanāth Sen) was more outspoken about the hidden treasures of Āyurveda. In his view, Āyurveda contained the seeds and saplings of all post-nineteenth century developments in the fields of medicine, microbiology and others. According to him, the circulation of blood ‘was understood with fair clearness long long before the much-talked-of discovery by Sir William Harvey in the seventeenth century’ (SEN 2002: 12). In support of his theorisation, he cites, in a speech delivered in 1916, translated into several Indian languages and widely disseminated, a passage from the *Carakasamhitā* (Sūtrasthāna 30, 8-10), which he translates authoritatively as (SEN 2002: 12):

From that great centre (the heart) emanate the vessels carrying blood into all parts of the body – an element which nourishes the life of all animals and without which life would be extinct. It is that element which goes to nourish the foetus in utero and which *flowing into its body returns to the mother’s heart*.¹¹

It would appear that this was the antecedent of Harvey’s revolutionary discovery, and that too gained without any anatomical knowledge or dissection.

Actually, the passage says nothing at all about blood, but describes *ojas*-¹²:

¹¹ Italics as in the original.

¹² On this fluid cf. particularly DAS 2003a: 530-535.

*tena mūlena mahatā mahāmūlā matā daśa
 ojavahāḥ śarīre smin vidhamyante samantataḥ.
 yenaūjasā vartayanti prīṇitāḥ sarvadehinaḥ (variant: sarvajantavaḥ)
 yad ṛte sarvabhūtānām jīvitam nāvatiṣṭhate.
 yat sāram ādau garbhasya yat tadgarbharasād rasah
 samvartamānam hṛdayam samāviśati yat purā.*

Together [i.e. conjoined]¹³ with that great base [= the heart, described in the previous verses] (or: Together with that Great One¹⁴ as the base) ten [vessels], considered as having the Great One¹⁵ as their base [and] carrying *ojas-*, are throughout dispersed in this body. Satiated through which *ojas-* all corporeal beings (variant: all creatures) exist; without which the life of all beings does not remain; which is, in the beginning, the essence of the embryo/foetus; which is the *rasa-* from the *rasa-* of that embryo/foetus;¹⁶ which enters the heart being formed first; ...

As is obvious, there is not only no blood mentioned here, but also no mother, and no heart of the mother. Of course, Sen has also seen that not blood, but only *ojas-* is mentioned; he explains this away by saying in a footnote to his translation that *ojas-* is evidently used in this text in a figurative sense. The last couplet proves it.' The 'last couplet' is 30,10 (*yat sāram ādau ...* 'which is, in the beginning ...'), which clearly can 'prove' that *ojas-* here is used figuratively for blood only if one already presupposes it describing blood circulation, which, of course, itself needs to presuppose not only that *ojas-* stands for blood a *circulus vitiosus* but also needs to introduce a mother and her heart.

Intriguingly, and against all other editions of the text that could be consulted, Sen also reads *punaḥ* 'again' in the place of *purā* 'first', and it is obviously this reading that furnishes him the means to speak of some sort of circulation. Without insinuating any wilful falsification of the text, one can nevertheless say that this reading is problematic, even if it might have been based on some

¹³ Thus also the commentator Cakrapāṇidatta: *teneti hṛdayena mahatā, yuktā iti śeṣaḥ.*

¹⁴ According to 30,7, *mahat* 'Great One; The Great' is one of the terms for the heart.

¹⁵ See note 14.

¹⁶ This is a problematic statement; cf. the discussion in DAS 2003a: 471-473.