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# Ḥiṭṭ or Doṣa? The Interpretation of Ayurvedic Theory of Tridoṣa in Early-Modern Persian Texts

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*Ḥiḷṭ or Doṣa?*  
**The Interpretation of Ayurvedic Theory of *Tridoṣa*  
in Early-Modern Persian Texts \***

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This article examines the methods used by Muslim and Hindu scholars to translate for a Persian speaking audience the theory of the *tridoṣa*, which stands at the core of Indian medical theory. I would like to specify that I am looking at the translation of Ayurvedic materials chiefly from the reader's perspective. I am not interested in the problem of the fidelity of the translation to the original source, which is also a marginalized topic in contemporary translation studies. On the contrary, I look at the changes of meaning and the additions of new meanings determined by translation and the reflexive outcomes of translation from the reader's perspective, *i.e.* the way in which translation redefines the conceptual values of the terms of the receiving culture which are involved in translation. Therefore I am not looking at what we may call the "unintentional entropy of the text", *i.e.* changes and corruptions determined by the fact that a text may be copied, read, annotated, etc. What I am looking at is what we may call the "intentional entropy of the text" due to translation, when the shift from the original meaning is intentional and is thought to render the content coherent and meaningful for new readers. A main issue in scientific translation is not the process of textual translation in itself, but the fact that translation implies a shift of readership and allows the text to circulate among new networks of scholars who may not share the conceptual framework of the readers of the source materials.

\*. I would like to thank Sreeramula Rajeswara Sarma for his comments on this text. This article is an updated version of "The Persian translation of the *tridoṣa*: lexical analogies and conceptual incongruities", published in *Asiatische Studien* 68 (3), 2014, p. 783-796. The main aim of this new version is to add some relevant references on the way the issue of the translation of the three *doṣa* was dealt with in Persian texts written by Hindu scholars.

A number of new texts dealing with Āyurveda became available for Persian-speaking readers in South Asia, from the 14<sup>th</sup> century onward. Several of these works explain the main physiological and pathological concepts of Āyurveda. Persian works on Āyurveda did not aim to discuss in depth the complex philosophical basis of the Ayurvedic doctrine; rather, they were intended to decipher and render accessible to Persian speaking physicians the therapeutic knowledge of their Indian colleagues. They show the efforts made by Muslim scholars to adapt their practices to the changing natural environment of South Asia through the assimilation of local therapeutic and drug knowledge into the Persian medical literature. Far from being an abstract endeavour, it was an empirical strategy which should allow Muslim physicians to overcome the lacunae of earlier Arabic and Persian texts which obviously did not describe in detail the lexica, drugs, diseases, etc., of the Indian environment. A parallel aspect of this process of adaptation is the fact that many Muslim scholars who wrote about Āyurveda did not translate the Sanskrit texts, but wrote rather new Persian works in which Ayurvedic materials were presented according to the models of the Persian scientific tradition.<sup>1</sup>

The works discussed in this article offer some examples of the genres of the new Persian texts written by Muslim scholars on Āyurveda, such as the general handbooks by Firišta and Ahl Allāh and the dictionary of the Indian *materia medica* by Rizā ‘Alī Ḥān. Although these texts set out to overcome the limits of Arabic classic works in the Indian environment, it is mainly through the lens of Greco-Arabic or Avicennian views and their lexica that the theory of the *tridoṣa* is translated and interpreted in the Persianate medical culture of South Asia. Moreover, I will suggest that this kind of translation was adopted also in the Persian medical works written by Hindu scholars, from the 17<sup>th</sup> century onward, such as the handbooks by Ladhamal ibn Bhairav and Bhagavant Dās.<sup>2</sup>

The prevalent method employed to translate the lexical components of the *tridoṣa* is “conservative” considering the size of the disciplinary lexicon of the receiving culture. It used the already pre-existing terms from the Arabic and Persian medical vocabularies without assimilating

1. See Speziale (2010b).

2. On Hindu physicians and Persian medical culture, see Speziale (2018: 123-163). On Persian speaking Hindu scholars, see also ‘Abd Allāh (1992); Alam and Subrahmanyam (2004); Pellò (2008, 2012); Kinra (2015).

the corresponding ones from the Sanskrit texts.<sup>3</sup> The terms and concepts used to translate the theory of the *tridoṣa* were thus categories constructed by an older translation, through which Muslim scholars had assimilated Hellenistic thought at the dawn of Muslim scientific studies. The use of different approaches for translating Indian terms often depends on the specific context and the use of the materials being translated. In other domains of the medical field Muslim scholars used an “extensive” approach that aims to extend the existing lexicon by integrating the Indian one, such as in the case of pharmacology where the main aim of these authors is to clarify and assimilate the local names of drugs.

Persian-speaking physicians therefore describe and comment upon the fundamental concepts of Āyurveda by using few Sanskrit terms in transliterated form. Although the original terms are sometimes provided, such as those of the subdivisions of each *doṣa* for which equivalent Persian terms do not exist, their use shows that they were not considered as fundamental elements of the translation.<sup>4</sup> The concept of *doṣa* is rendered through the Arabic term of *ḥilt* (humour, plural *aḥlāt*), while the three components of the *tridoṣa* (*vāta/vāyu*, *pitta*, *kapha*) are translated by the analogous categories of Greco-Arabic medical thought. This is only in appearance a congruous and compatible translation between these two lexica. The translation of the humoral lexicon by using equivalent terms is actually a delicate hermeneutical action that generates various ambiguities. The equivalence sought at a lexical level could not always be translated into a precise correspondence at a conceptual level, because some of the entities defined by these terms do not share the same properties. The statement of the difference and indeed incompatibility between the principles of the two traditions is actually a discourse that dates back to the *Book of Pharmacology* (*al-Kitāb al-ṣaydana*) of Abū Rayḥān

3. I am indebted to translation studies for some of the elements of the analysis in this article. On the approaches and methods of translation in the Indian context, see Chaudhuri (1999), the studies collected in the volume by Nair (2002), and the article by Stewart (2001). On translation studies, see also Schulte and Biguenet (1992); Bassnett (1980); Bassnett and Lefevere (1990, 1998); Bassnett and Trivedi (1999); Venuti (1995, 2000); Osimo (2008).

4. For instance, in the first passage translated below of the chapter on humours (*dar ḍikr-i aḥlāt*) of the *Dastūr al-aṭibbā'*, Firišta initially mentions the term *dōka* (for *doṣa*) but then uses the Arabic equivalent in the rest of the chapter, Firišta, *Dastūr al-aṭibbā'*, ms. Tehran Kitābhāna-yi Malik, pers. 4497, f. 6a.

al-Bīrūnī (fl. fifth/eleventh century).<sup>5</sup> Another illustration of the difficulty of comparing Indian with Greek scientific concepts is encapsulated by the description of Indian sciences provided in the *Ā'in-i Akbarī* of Abū al-Faẓl 'Allāmī (d. 1011/1602), the historian and officer of the court of the Mughal emperor Akbar (r. 1556-1605). Abū al-Faẓl begins by comparing certain notions of Hindu and Greek schools, especially concerning geographical matters, but then concedes that he could not compare the two doctrines as he had wished.<sup>6</sup>

The two medical theories are characterised by certain analogies that influence the way in which the Indian terms could be translated and interpreted by the authors and readers of these Persian texts. The two traditions consider the human body as comprising a certain number of elements, have a physiological doctrine based on the existence of humoral principles, and believe that the harmonisation or alteration of these principles constitutes the main factor that affects the health of the body. Efforts to conceptualise the equivalence of the theory of the elements of the two schools have also been made outside the medical domain. Dārā Šikōh (d. 1069/1659), in the first chapter of the *Majma' al-baḥrayn* in which he explains the theory of the elements, strives to show and construct the correspondence between the two views by establishing a correlation between the ether of the Indian doctrine and the divine Throne (*arš-i akbar*) of the Islamic theology.<sup>7</sup>

However, these viewpoints are characterised by fundamental differences concerning the quantity and the quality of the elements and the humours. The Galenic doctrine of the Muslim physicians conceives four elements, namely air, fire, water, and earth, which are considered the universal matter of creation. In contrast, Indian doctors additionally contemplate a fifth element, the ether (*ākāśa*). Further, Muslim physicians, believe that humours are four, just as the elements. These are blood (*hūn, dam*), which is hot and humid, phlegm (*balġam*), cold and wet, yellow bile (*ṣafrā'*), hot and dry, and black bile (*sawdā'*), cold and dry. In contrast, the Indian physicians have a threefold view that contemplates the wind (*vāta*,

5. Although al-Bīrūnī recognises the excellence of Indian physicians in this field, he excludes any possibility of dialogue because of the differences that exist between the two schools, Birūnī (1973: 7).

6. Abū al-Faẓl 'Allāmī (1877: 14-16, 23, 26, 62, 66, 225).

7. See D'Onofrio and Speziale (2011: 79).

vāyu), phlegm (*kapha*, *śleṣman*), and bile (*pitta*).<sup>8</sup> Table 1 shows the most frequent methods used to render the three *doṣa* of Ayurvedic medicine in Persian works and explains how they were classified according to the four natural qualities of the Greco-Arabic view.

Table 1 – The Persian rendering of the three *doṣa*

INDIAN TERM	ARABIC-PERSIAN EQUIVALENT	NATURAL QUALITIES ASSOCIATED
<i>vāta</i>	<i>bād</i>	cold and dry
<i>kapha</i>	<i>balġam</i>	cold and wet
<i>pitta</i>	<i>talĥa / ṣafrā'</i>	hot and wet/dry

Therefore, from the point of view of Muslims, Indian physicians do not count blood among the humours, they contemplate one bile instead of two, and they consider air or wind as being both an element and a humour. The historian and physician Muḥammad Qāsim Hindūšāh Firišta (born ca. 978/1570),<sup>9</sup> who wrote a well-known Persian treatise on Āyurveda called the *Dastūr al-aṭibbā'*, explains the question in the following way in the chapter on the humours (*dar dīkr-i aḥlāt*) of the *muqaddama* (introduction):

Know that Indian physicians call the humour (*ḥilṭ*) *dōka* and that they explain the meaning of *ḥilṭ* in the following way: they are three, *bād*, *balġam*, and *ṣafrā'*, and the well-being and corruption (*fasād*) of the seven *dhātu*<sup>10</sup> are based on them. They do not count *sawdā'* among the *aḥlāt*. They say that although it [*sawdā'*] is present in the body, it is a disease (*maraz*) and not a humour. Like the flesh (*gušt*), the blood (*ḥūn*) is an element (*juz'*) of the body, and *sawdā'* is the burnt blood (*ḥūn-i sūḥta*) that has combined itself with *bād* [which is] cold (*sard*) and dry (*ḥušk*). It takes a dark colour because when the blood combines with the wind, it becomes cold, dry, and black.<sup>11</sup>

8. On their properties, see the first chapter of the *Sūtrasthāna* (1.57-61) of the *Carakasamhitā*, Caraka (2011: 205).

9. Firišta was born in Iran and grew up in the Deccan where he served at the court of sultan Ibrāhīm 'Ādil Šāh II (r. 1580-1627) of Bijapur.

10. The seven *dhātu* (chyle, blood, muscles, fat, bones, marrow, and semen) are described by Firišta in another chapter of the *muqaddama* of the *Dastūr al-aṭibbā'*.

11. Firišta, *Dastūr al-aṭibbā'*, ms. Tehran Kitābhāna-yi Malik, pers. 4497, f. 6a; ms. Copenhagen, Det Kongelige Bibliotek, pers. XXII, f. 4a-4b. On Firišta's *Dastūr al-aṭibbā'*, see also Speziale (2010b: 420-421).

For Firišta, as for other Muslim authors, it is thus important to understand the reasons for the differences in the two schools and to consider how the categories of the Muslim view, which are missing from the Indian perspective, could nonetheless be conceptualised according to the latter. Firišta's reasoning about *sawdā'* seems to imply a reification of the concept. He refers to the view of Indian physicians about this humour, whereas the concept of *sawdā'* is absent from Ayurvedic thought. According to Firišta, *sawdā'* is hence a burnt compound of blood and air, an interpretation also referred to in Riżā 'Alī Ḥān's *Taḏkira al-hind*, a Persian dictionary of Indian drugs that includes a first part on the principles of Ayurvedic medicine and pharmacology.<sup>12</sup> Neither Firišta nor Riżā 'Alī Ḥān specifies the concept of the Ayurvedic thought to which they are referring. However, it is probably not too difficult to identify it, since the combination of the harmful effects of wind and blood, called *vāta-rakta*, represents a well-known etiological factor in Ayurvedic physiopathology.<sup>13</sup> At the same time, this "Indian" explanation of *sawdā'* as the cold and dry product of a combustion concurred with how Muslim physicians viewed this substance. Another author that attempted to explain these differences was Šāh Ahl Allāh (d. 1190/1776), who wrote the *Takmila-yi hindī*, a text on Indian medicine, and who was the brother of Šāh Walī Allāh (d. 1176/1762), the well-known theologian and Sufi of Delhi.<sup>14</sup> Šāh Ahl Allāh says that Indian physicians "do not count blood as a humour, because it is a constituent (*muqawim*) of the body, nor *sawdā'* in which is the blood and which is in the blood. Instead, they count *bād* among the precepts (*aḥkām*) and signs (*āṭār*)." <sup>15</sup> Ahl Allāh therefore agrees with Firišta both about the status of blood and about its connection with *sawdā'*.

Let us now examine in more detail how the characteristics of the three *doṣa* of the Indian doctrine are presented in these Persian texts. Some authors specify the associations between the humours and elements. For example, Riżā 'Alī Ḥān writes that Ayurvedic *baljām* is an aquatic substance

12. Riżā 'Alī Ḥān (1353/1935, vol. 1: 11). The *Taḏkira al-hind*, known also as *Yādgar-i Riżā'ī*, was completed around 1237/1821-22 in Hyderabad (Deccan). It is based on a text written in Arabic by Riżā 'Alī Ḥān's father, Maḥmūd 'Alī ibn Ḥakīm Ḥaẓrat Allāh, which was completed and translated into Persian by the son.

13. On this subject, see for example the fifth chapter of the *Cikitsāsthāna* (5.1-17) of the *Suśrutasaṃhitā*, *Suśruta* (1911, vol. 2: 297-304).

14. On Šāh Ahl Allāh, see Speziale (2010a: 59-60).

15. Šāh Ahl Allāh. *Takmila-yi hindī*, ms. Hyderabad, Andhra Pradesh Oriental Manuscript Library and Research Institute, pers. 403, f. 2a.



(*ābī*), Ayurvedic *ṣafrā'* is related to fire (*ātašī*), while *bād* is associated with air.<sup>16</sup> Avicennian physicians establish similar connections between *balġam* and the element water as well as between *ṣafrā'* and the element fire. Despite this, the second association does not imply a precise equivalence between the natural qualities associated with these substances in the two traditions.

The term used to translate *vāta* is the Persian *bād* (wind, air), which is derived from the Middle Persian *vāt* and Avestan *vāta*. Firišta describes the characteristics of *bād* and emphasises the centrality of its role in pathology in the following manner:

Know that they consider *bād* as cold, dry, light (*sabuk*), rough (*durušt*), and subtle (*laṭīf*); it moves a lot, is quick (*sarī*), and is capable of stimulating (*muḥarrīk*) the other humours. They say that *bād* is a compound (*murakkab*) of *balġam* and *ṣafrā'* and that it supports their movement (*ḥarakat*). During health and disease, its action (*'amal*) is always more important than that of the other humours and it can move in the whole body in the blink of an eye.<sup>17</sup>

Firišta's reconstruction of the Indian doctrine therefore contemplates the idea that *bād* is a product of the two other humours. Muḥammad Akbar Arzānī (d. 1134/1722 ca), another well-known physician, gives a similar explanation, although he changes one of the elements.<sup>18</sup> According to Arzānī, *bād* is a vapour generated (*mutawallid mišawad*) by the humours, especially by *balġam* and *sawdā'*.<sup>19</sup> However, this interpretation is rejected by Riżā 'Alī Ḥān, who says that *bād* is the foundation (*asās*) of the other humours and that it is not produced by the other elements (*'unṣur*), a view closer to that of Ayurvedic sources. Riżā 'Alī Ḥān also indicates the main parts (*maqām-i aṣlī*) of the body associated with *bād*: the waist (*kamar*), rectum, navel, heart, and throat.<sup>20</sup>

Muslim physicians thus classify Ayurvedic *bād* as a cold and dry substance. As a result, the nature of this humour is exactly the opposite of that of the element *bād* in the Avicennian doctrine, where it is considered

16. Riżā 'Alī Ḥān (1353/1935, vol. 1: 11).

17. Firišta, *Dastūr al-aṭibbā'*, ms. Tehran, Kitābhāna-yi Malik, pers. 4497, ff. 6a-6b; ms. Copenhagen, Det Kongelige Bibliotek, pers. XXII, f. 4b.

18. On Akbar Arzānī, see Speziale (2011).

19. Arzānī discusses this topic in the *Mizān al-ṭibb*, a handbook of Avicennian medicine (Arzānī 1268/1851: 3).

20. Riżā 'Alī Ḥān (1353/1935, vol. 1: 11-12).

as hot and humid, such as blood. In the introduction of the *Takmila-yi hindī*, Šāh Ahl Allāh attempts to clarify the question of the ambivalence of *bād* in the Indian doctrine, explaining that the humour of medical physiology does not correspond to the element air and that the qualities of *bād* may vary from its original temperament because of the interactions with other principles:

What is meant by *bād*, that they count [also] among the elements (*arkān*), are the particles of air (*ajzā'-i riḥī*) that detach themselves after the digestion of food. The basic temperament (*mizāj-i aṣlī*) of *bād* is cold (*sard*) and dry (*ḥušk*); however, it becomes hot when it mixes with heat (*garmī*), cold with coldness, wet with moisture (*tari*), and dry with dryness.<sup>21</sup>

The basic qualities of Ayurvedic *bād* correspond therefore to those that in Avicennian theory are attributed to black bile (*sawdā'*). In this regard, it should be considered that *sawdā'* was also regarded as a harmful substance according to Muslim physicians, because it was the final and deteriorated product of the generation and coction of the humours through digestion.<sup>22</sup> Rīzā 'Alī Ḥān clearly states that this type of interpretation, namely assimilating the qualities of Ayurvedic *bād* with those of *sawdā'* rather than those of the element air, was present among the physicians, although apparently only some of them: "Some interpret (*ta'bīr mīkunand*) *sawdā'* by the name of *bād* but this opinion (*qawl*) is weaker."<sup>23</sup> Other sources do clearly refer to the analogy, if not the equivalence, between Ayurvedic *bād* and *sawdā'*. The analogy between the symptoms of *bād* and those of *sawdā'* is clearly evoked in Šihāb al-Dīn Nāgawrī's *Šifā' al-marāz*, written in 790/1388, a treatise in verses that presents the most important attempt to combine Muslim and Indian views about bodily humoral pathology.<sup>24</sup> In 1056/1647, Nūr al-Dīn Muḥammad Šīrāzī completed the *'Ilājāt-i Dārā Šikōhī* a medical encyclopaedia which includes a chapter on the analysis of the pulse according to the Indian physicians. Nūr al-Dīn explains that when the movement (*raftār*) of the pulse resembles that of the snake (*mār*), Indian physicians consider it as a symptom of the increase of the black

21. Šāh Ahl Allāh, *Takmila-yi hindī*, ms. Hyderabad, Andhra Pradesh Oriental Manuscript Library and Research Institute, pers. 403, f. 2a.

22. On the humours in the Greco-Arabic doctrine, see Afkhami (2004).

23. Rīzā 'Alī Ḥān (1353/1935, vol. 1: 11).

24. Nāgawrī (1295/1878-79: 5-6), see Speziale (2014). Šihāb al-Dīn Nāgawrī was the author of another medical work, the *Šifā' al-Ḥānī*, written for the sultan of Gujarat, Muẓaffar Šāh (r. 1407-1411).

bile (*bisyār-i sawdā*). In Śārṅgadhara's *Śārṅgadharasaṃhitā* (13<sup>th</sup> or 14<sup>th</sup> century), the oldest Sanskrit treatise including a chapter on the pulse, the increase of *vāta* is indeed associated with the movement of the snake.<sup>25</sup> Nūr al-Dīn's translation clearly shows that he regards *vāta* and *sawdā*' as interchangeable concepts and that in this passage he considers the conceptual translation of *vāta* by *sawdā*' more coherent than the word-by-word translation by *bād*.<sup>26</sup>

This view is shared by Ladhamal ibn Bhairav a Hindu physician who lived during Awrangzeb's reign (r. 1658-1707) and wrote the *Baḥr al-fawā'id* a Persian medical work arranged according to the order of the *Mādhava-nidāna* of Mādhava (around 8<sup>th</sup> century), a well-known Sanskrit treatise on diagnostic.<sup>27</sup> Ladhamal ibn Bhairav studied with Muslim teachers and explains to have based his book on both Indian and Muslim sources (*intiḥāb-i kutub ahl-i hind wa yūnān*).<sup>28</sup> The introduction (*muqaddima*) of the book includes a paragraph (*faṣl*) on the "three humours" (*aḥlāt talāta*), namely *bād*, *ṣafrā/talḥa* and *balḡam*, where the term *amrāz-i sawdā'i* (black-bile diseases) is used to refer to the disorders caused by *bād*.<sup>29</sup>

The translation of *pitta* is also problematic, and Persian-speaking physicians do not agree on how it should be rendered into Persian. The following is Firišta's definition of the qualities of bile:

According to Indian doctors, *ṣafrā'* is hot (*garm*), wet (*tar*), fluid (*raqīq*), sour (*ḥād*), quick, and light (*sabuk*). Some say that from it come all the organs associated with fire [...] and according to Vāgbhaṭa, the Indian scholar (*hindawī muḥaqqiq*), it is the residue of blood.<sup>30</sup>

Firišta translates *pitta* by using the Arabic term *ṣafrā'*, which in the Avicennian doctrine refers specifically to the yellow form of the bile. Other works also translate *pitta* as *ṣafrā'*, such as Rizā 'Alī Ḥān's *Taḍkira al-hind* and

25. Śārṅgadhara (2003: 14-15).

26. Nūr al-Dīn Širāzī, *'Ilājāt-i Dārā Šikōhī*, ms. Tehran, Kitābhāna-yi Majlis, pers. 6224, p. 425. On Širāzī's work, see Speziale (2010c).

27. See Mādhava (1987).

28. Ladhamal ibn Bhairav, *Baḥr al-fawā'id*, ms. London, Wellcome Trust Library, pers. 88, f. 3a. Ladhamal ibn Bhairav refers to having been a student of Abū al-Faṭḥ, the author of the *Dār al-šifā'-i Awrang-šāhī*, see below.

29. Ladhamal ibn Bhairav, *Baḥr al-fawā'id*, ms. London, Wellcome Trust Library, pers. 88, f. 11b.

30. Firišta, *Dastūr al-aṭibbā'*, ms. Tehran Kitābhāna-yi Malik, pers. 4497, f. 11b; ms. Copenhagen, Det Kongelige Bibliotek, pers. XXII, f. 9a.

Sayyid Murād Alī's *Ṭibb-i murād al-šifā'*, a treatise written in 1193/1779.<sup>31</sup> The *Maḥzan al-'ulūm*, a 19<sup>th</sup>-century compact encyclopaedia of sciences by the Hindu scholar Vraja Mōhana does also use *ṣafrā'* to refer to *pitta* in the chapter on medicine.<sup>32</sup> According to Firišta, Ayurvedic *ṣafrā'* is a hot and humid substance. Its qualities therefore do not correspond to those of Avicennian *ṣafrā'* because Muslim physicians believe that yellow bile is hot and dry.

The qualities of Ayurvedic *ṣafrā'* correspond therefore to those ascribed to blood in Avicennian tradition. At the same time, some authors were not completely in agreement with Firišta, such as Rizā 'Alī Ḥān, who specified that the temperament (*mizāj*) of Ayurvedic *ṣafrā'* can be hot and wet or dry. Otherwise, the description of the qualities of *ṣafrā'* presented by Rizā 'Alī Ḥān agrees with that of Firišta in that bile is the residue of blood, is associated with fire, and is light and quick, although Rizā 'Alī Ḥān adds that it also emanates a bad smell.<sup>33</sup>

Other authors do not adopt this translation, probably in order to avoid the ambiguity with the yellow bile of the Greco-Arabic doctrine. Another way to translate *pitta* is by using the Persian term *talḥa*, which also means "bile", without however indicating only one form of this humour. Šāh Ahl Allāh uses the term *talḥa* in the *Takmila-yi hindī*, in which he explains that it is hot and wet.<sup>34</sup> Therefore, he uses a different term but at a conceptual level agrees with Firišta's definition of the quality of Ayurvedic bile. Similarly, other texts use the term *talḥa*, e.g. Šihāb al-Dīn Nāgawrī's *Šifā' al-marāz*, where its qualities oscillate between dry and wet,<sup>35</sup> Qāsim ibn Quṭb ibn Ya'qūb's *[Kitāb-i] Sulaymān-šāhī* (written in 902/1496-7),<sup>36</sup> Šayḥ Bīnā ibn Ḥasan's *Ḥulāṣa-yi Bīnā* (of 996/1588),<sup>37</sup> and Abū al-Faṭḥ's *Dār al-šifā'-i Awrang-šāhī* (of 1081/1670).<sup>38</sup> The same translation is used by the

31. Murād Alī, *Ṭibb-i murād al-šifā'*, ms. London, Wellcome Library, pers. 526.

32. Vraja Mōhana (1867: 86).

33. Rizā 'Alī Ḥān (1353/1935, vol. 1: 12).

34. Šāh Ahl Allāh. *Takmila-yi hindī*, ms. Hyderabad, Andhra Pradesh Oriental Manuscript Library and Research Institute, pers. 403, f. 2a.

35. Nāgawrī (1295/1878-79: 5).

36. Qāsim ibn Quṭb ibn Ya'qūb Ḥakīm, *[Kitāb-i] Sulaymān-šāhī*, ms. Hyderabad, Andhra Pradesh Oriental Manuscript Library and Research Institute, pers. 329.

37. Bīnā ibn Ḥasan, *Ḥulāṣa-yi Bīnā*, ms. London, Wellcome Library, pers. 601. Šayḥ Bīnā ibn Ḥasan's family came from the Punjab and he was one of the physicians associated with Akbar's court.

38. The author dedicated his work to the Mughal emperor Awrangzeb (r. 1658-1707).

Brahmin Bhagavant Dās in the *Dawā al-‘ilal* a treatise dealing chiefly with pathology and treatment of which a 18<sup>th</sup> century copy is preserved.<sup>39</sup> The translator Ānand Rām uses the term *talḥa* in his *Rāḥat al-faras*, a Persian adaptation of the *Aśvacikitsita*, a Sanskrit work on the horse and its treatment attributed to Nakula. It is unclear if the translator was Ānand Rām Muḥliṣ (d. 1164/1751), the well-known Persian poet and author of the Persian lexicographic work *Mir’āt al-iṣṭilāḥ*.<sup>40</sup>

Furthermore, certain scholars use both terms to refer to Ayurvedic bile in their texts, such as Ladhamal ibn Bhairav in the *Baḥr al-fawā’id*. The way this Hindu scholar translates *pitta* by using both *talḥa* and *ṣafrā* (and the derived adjective *ṣafrāwī*, “bilious”) in the paragraph on the three humours (*aḥlāt talāṭa*) clearly indicates that he considers these terms as conceptually equivalent and interchangeable.<sup>41</sup> The choice of using two terms to translate the same notion is neither clearly stated in this text, which implies that its readers should have been well-aware of the fact that different terms in this case did not imply a conceptual shift. Another author, Sayyid Mīr Ḥaydar ‘Alī Dihlawī, who wrote the *Šifā’ al-nās*, did not use any of these translations for *pitta* but uses the Persian term *garm* (hot), which he explains as the “heat” generated by the element fire (*ātaš*).<sup>42</sup>

On the contrary, the conceptual translation of *kapha* does not raise the same problems as those of *vāta* and *pitta*. The term used is the Arabic *balḡam* which is probably derived from the Greek *flegma*. In this case, the translation of *kapha* as *balḡam* also implies a similarity between the properties of those substances designated by these terms. The natural qualities that the Muslim physicians associate with *kapha*, cold and wet, are the same as those of Avicennian *balḡam*. Firišta writes that:

According to the view of the Indians, *balḡam* is the residue (*faḏla*) of chyle (*kilūs*) and its nature (*ṭabī’at*) is cold, wet (*tar*), and salted

39. Like his colleagues, Bhagavant Dās uses *bād* and *balḡam* to refer to the other two humours of Ayurvedic medicine, for instance in the chapter on fevers (*tab*), Bhagavant Dās Brahman, *Dawā al-‘ilal*, ms. Paris, Bibliothèque nationale de France, supplément persan 1167, f. 3b. This manuscript was copied in the 18<sup>th</sup> century according to Blochet (1912: 115).

40. Ānand Rām, *Rāḥat al-faras*, ms. London, British Library, Or. 5762, ff. 18b-19a. On Ānand Rām Muḥliṣ, see ‘Abd Allāh (1992: 150-168); Pellò (2008).

41. Ladhamal ibn Bhairav, *Baḥr al-fawā’id*, ms. London, Wellcome Trust Library, pers. 88, ff. 10a-11b.

42. Mīr Ḥaydar ‘Alī Dihlawī, *Šifā’ al-nās*, ms. London, Wellcome Library, pers. 289, f. 2a. The date of the composition of this work is not known.

(*šūr*) [...], its movement is moderate (*qalīl al-ḥarakat*), and it is soft (*mulāyim*) and viscous (*lazaj*).<sup>43</sup>

For Firišta Ayurvedic phlegm is salty while according to Rizā ‘Alī Ḥān a distinction should be made between the raw and the cooked form of Ayurvedic phlegm:

*Balġam* is the residue (*fazla*) of chyme (*kaimūs*) and [is associated with] water [...]. Its cooked (*puḥta*) [form] is sweet, white, heavy, oily, and stuck like resin. Its raw (*ḥām*) [form] is a little salty and its temperament is cold and wet.<sup>44</sup>

These examples illustrate clearly the main lexical and conceptual features of the Persian translation of the *tridoṣa* mentioned earlier in this article. The basic terms and categories of the Indian doctrine are integrated into Persian texts through the analogous terms of the Arabic-Persian scientific lexicon rather than by adding new Indian words to this lexicon. In this Persianised version of the *tridoṣa*, *vāta* becomes *bād* and *kapha* becomes *balġam*, while *pitta* becomes either *ṣafrā’* or *talḥa* and, in one instance, *garm*. This is an intentional and shared approach, it is not a constraint imposed by the linguistic or social context. The term *kaf* (foam, phlegm) existed in Persian, while terms such as *dōṣa*, *wāta* (also *bāt*), *dhātū*, *pittā*, *slēšmā*, and *rakta* that existed in Urdu may have been used in the spoken language as well as in the interactions among scholars, which was certainly one way through which Muslims acquired knowledge of Indian scientific materials.<sup>45</sup> It is important to remark that in the other direction of the exchanges, the *Hikmatprakāśa* of Mahādevadeva, a Sanskrit text on Avicennian medicine written in 1773-34, adopts the opposite approach of including many Arabic and Persian words in *nagārī* script, especially with regard to the humoral lexicon.<sup>46</sup> Instead, the approach of these Persian treatises on Āyurveda is more comparable to the way in which certain Persian texts on Hinduism and Vedānta, such as the Dārā Šikōh’s *Majma’ al-baḥrayn*, freely use Islamic terms and concepts to translate the Indian doctrine, even at the risk of forcing the analogy.<sup>47</sup>

43. Firišta, *Dastūr al-aṭibbā’*, ms. Tehran, Kitābhāna-yi Malik, pers. 4497, ff. 9b-10a; ms. Copenhagen, Det Kongelige Bibliotek, pers. XXII, f. 7b.

44. Rizā ‘Alī Ḥān (1353/1935, vol. 1: 12).

45. For instance, both Firišta and Šihāb al-Dīn Nāgawrī studied with Hindu teachers; see also Speziale (2010b: 419-420).

46. See Meulenbeld (2012a; 2012b).

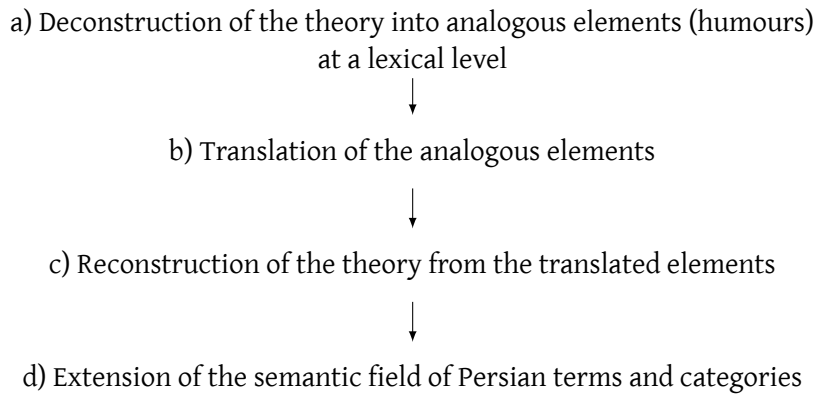
47. See D’Onofrio and Speziale (2011: 20, 58-61).

As we have seen, the use of homologous terms did not lead to the formulation of conceptual equivalences, except in the case of *balġam*. Furthermore, lexical analogies generate conceptual asymmetries. Although *pitta* can be translated by using homologous technical terms such as *ṣafrā'* and *talĥa*, the qualities that Firišta and Ahl Allāh assign to Ayurvedic bile do not match those of either of the two forms of bile of the Avicennian tradition, but rather those of blood. The properties of Ayurvedic *bād* are even contrary to those of air in the Avicennian doctrine and rather closer to those of *sawdā'*. The terms of the Indian physiology can be reduced to those of the corresponding Persian lexicon; however, the corresponding concepts cannot be treated in the same way. Although the translation is composed of translatable elements, the product is dissonant because it does not retain the relationship between the *signifiant* and the *signifié* in the technical vocabulary of the receiving culture. For the humoral terminology, the problem clearly derives from the close relationship between terms and doctrine. Technical terms are not neutral; rather, they are characterised by established conceptual values. The use of *talĥa* and *garm* instead of *ṣafrā'* can thus be interpreted as an attempt to use a less characterised and more flexible term at a conceptual level.

However, such ambiguities were not unsolvable. The solution proposed by these texts is rather evident, that is to say, to redefine the conceptual value of the term and of the associated category. The Persian translation of the *tridoṣa* therefore is not based on the extension of the lexicon, but rather on the extension of the conceptual value of the categories of the receiving culture and of its technical lexicon. The ambiguities generated by translating based on lexical analogies are thus resolved through the attribution of new values to known categories and terms. Table 2 recapitulates the main aspects involved in this approach: a) the deconstruction of the Indian doctrine in elements considered as analogous by translators, b) the translation of such elements, c) the reconstruction of the original theory from the translated concepts, and d) the extension of the conceptual field of the Persian terms involved in the translation.

In the Indo-Persian medical lexicon, *bād* and *ṣafrā'* therefore become polysemic terms and categories. In the Persian texts on Āyurveda, *bād*, *ṣafrā'*, and *hūn* define new concepts, whose characteristics differ from those usually associated with such principles in the rest of the Persian and Arabic literature. In terms of medical practices, this means that Muslim

Table 2 – The method of translation: deconstruction and reconstruction of the humoral lexicon



physicians and readers of these texts needed to avoid confusing these concepts with the conventional meanings of the same terms, as this would obviously have led to erroneous and dangerous consequences in the diagnosis and treatment of a disease. Interpretation indeed plays a central role in the Muslim reading of certain notions of the Indian doctrine, such as in the case of *pitta* and the inference of its qualities. As seen in the passages above, one of the main concerns of the Muslim physicians is to define the nature of the three *doṣa* based on the four natural qualities (hot, cold, wet, and dry) of the Greek doctrine. However, a description such as that given in the *Carakasamhitā* actually does not clearly specify if *pitta* is wet or dry.<sup>48</sup> Muslim physicians were forced to infer this quality from the other properties of this substance. Therefore, the authors of these texts were not always in agreement on how certain concepts should be interpreted, for example if *pitta* was wet or both wet and dry, or if there was an analogy between *sawdā'* and *bād*.

The interpretative action is obviously the basis for the reconstruction of the role assigned to *sawdā'* in a view that *a priori* does not contemplate the same substance. Moreover, the interpretation is complicated by the fact that the concepts of bodily humours used to translate the Indian ones were themselves constructed categories derived by deductive means of

48. *Sūtrasthāna*, 1.60, Caraka (2011: 205).



reasoning, since humours, except for blood, are not tangible entities that can be directly observed by physicians. Their actions and modifications inside the body must be inferred from other factors, such as the symptoms of a disease and the diagnostic reasoning. Therefore, the translation of the *tridoṣa* also involved examining the meaning of some of the main conceptual categories of the Muslim view and the way in which these could be used to translate the other as well as to explain the changes undertaken by the temperament of bodies in different climatic conditions such as those in India. This climatic explanation is actually presented by Muslim physicians as one of the reasons for studying local learning.<sup>49</sup>

This type of translation shows that the terms and concepts of the humoral doctrine were not static elements defined by the immutable criteria of the classic texts. Instead, they were dynamic and flexible terms that allowed authors to use the same words by changing the semantic register. Notwithstanding the conceptual dissonance, none of these authors thought it necessary to change the approach and to adopt systematically Indian terms rather than their Arabic-Persian equivalents for fear that this could contradict the canonical definitions of the humours given by classic Avicennian authors. In other words, Muslim writers have not set out to differentiate radically their terms and concepts from those of their Indian colleagues, particularly through the adoption of different terms from those of the Avicennian lexicon. At the same time, we should consider this issue from the point of view of Hindu authors, translators and readers. Was this type of translation coherent and acceptable to the networks of Hindu authors and readers of Persian medical and scientific texts that emerged from 17<sup>th</sup> century onwards? How do they perceive the deviation from the original meaning of the term determined by translation, as well as the new epistemic and hermeneutic possibilities opened by the interpretation of translated materials through the lexicon of target culture? In fact, the Hindu scholars of the Mughal epoch who write medical texts in Persian do not seem to revolutionize the method of translating the three *doṣa*. On the contrary, they assimilate and consolidate the system

49. For instance, in the preface of his work, Firišta specifies that one of the reasons he wrote it was the fact that his “Muslim friends who live in these areas have no information about the great alterations of the seasons and the climate of this country”, Firišta, *Dastūr al-aṭibbāʾ*, ms. Tehran, Kitābhāna-yi Majlis, pers. 5521/1: 1-2. The classification of Indian scholars of the six seasons and their effects on bodily humours is one of the subjects explained in Persian texts that deal with Indian medicine, such as the *Dastūr al-aṭibbāʾ*.

used by their Muslim colleagues. In this approach to translation based on lexical homologies, terms such as *bād* and *ṣafrā'* can be easily stripped of their usual conceptual identities and dressed in new Ayurvedic clothes, providing new concepts that also aim to interpret the changes in the temperament of the body determined by the Indian climate. The Persian translation of the *tridoṣa* is therefore a process that “indianises” the Persian medical lexicon by adding local conceptual values to established scientific terms and categories.

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