The Development of Galenico-Islamic Medicine: Assimilation of Greek Sciences into Islam

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Introduction

What is called "Islamic medicine" does not take its theoretical or conceptual foundation from the Koran, but mainly from Greek medicine. It is termed as such because the Islamic scholars during the medieval period translated and further systematised Greek medicine though they also made use of other medical knowledge and practices including Indian, Persian or Arabic. It is partly due to this mixture that the term "Islamic medicine" has received various connotations and meanings. While for traditional learned physicians as well as for modern historiography[1], Islamic medicine is based on Galenic theories, in popular or religious parlance the "Islamic medicine" covers also hygienic, dietetic or healing instructions that they attribute to the Prophet and the Imams.[2] Moreover, affected by historical contexts in countries where it was assimilated, Islamic medicine has acquired different socio-political characteristics. For example, it does not mean the same thing in India where it

[1] See for example: Max Meyerhof, *Studies in Medieval Arabic Medicine,* (Variorum Reprints) (London: 1984); Cyril Elgood, *A Medical Hitory of Persia and the Eastern Caliphate,* first published Cambridge University Press, 1951, reprinted 1979 (Amsterdam: APA-Pjilo Press, 1979).

[2] Ibn Qayyim al-Jawziyya, *Medicine of the Prophet,* translated by Penelope Johnstone, (Cambridge: The Islamic Texts Society, 1998).

is called *Unâni tebb* (lit. Greek medicine) and in Iran where it is termed *tebb-e sonnati* (traditional medicine). Perhaps the relationship between Greek medicine and Islam is best illustrated in the term *tebb-e sonnati* that is used in Iran to designate Galenico-Islamic medicine, insofar as *sunna* (or *sonnat*) refers to the customs and manners or the sayings of the Prophet that are the foundation of Islamic law and jurisprudence. The term *tebb-e sonnati* therefore has a religious overtone and in this sense it is legitimate to include what are called *tebb al-nabi* (medicine of the prophet) or *tebb-al-a'emma* (medicine of the Imams), in "traditional [i.e. Galenic] medicine". When Khomeyni, the founder of the Islamic regime in Iran, took power her advocated the revival of traditional medicine that, according to him, had been abandoned due to Western influence. In other words, the revival of "traditional medicine" was associated with the revival of Islamic power. To the extent that the theoretical foundation of what Khomeyni called "traditional medicine" was humoural and based on Greek medicine, while according to the Islamic creed the *Umma* (or the community of believers) should follow only the *sunna* of the Prophet and the Verses of the Koran in its every day life, it becomes important to explore the historical process through which Greek medicine was assimilated by Islam. The purpose of this paper is to examine this assimilation through or alongside two processes: 1, the creation of Islamic power and 2, the elaboration of Islamic theology and cosmology.

Formation of Islamic state

The development of what is called "Islamic sciences" was closely linked to the establishment of central state in Islam. After the death of the Prophet, Islamic community faced several civil wars, the first of which occurred after the murder of the third Caliph, Othmân, in 656 and ended with the accession of Mo'âwia to the caliphate in 661.[3] The Umayyad established a central state in Damascus by adopting elements of Byzantine and Sasanid administrative systems to such an extent that they were criticised by their Arab rivals for abandoning the pure theocracy of the Medina. However, when these critics took power they continued the Umayyad's policy by multiplying the administrative departments (*diwâns*), such as *diwân al-kharâj* (tax office), *diwân al jund* (war office), *diwân al-rasâ'el* (secretariat), mainly borrowed

[3] J.J. Saunders, *A History of Medieval Islam,* p. 62; G.R. Hawting, *The First Dynasty of Islam: The Umayyad Caliphate AD 661-750,* (London & Sydney: Croom Helm), p. 3.

from the Sasanid empire.[4] As the Umayyad and the Abbasid caliphs needed the expertise and know-how of the elites of the conquered countries, they developed the court patronage and sponsored men of sciences of all creed, Arab and non-Arab alike, although most Zoroastrian Persians, such as Ibn Moqaffa‘ (died *ca*. 756) and Barmak (ca. 685-725), converted to Islam when they entered at the Caliphs' service.[5] The court patronage, however, was not a new phenomenon, but it was developed significantly due to the need of the nascent Islamic empire. The patronage system to a large extent helped non-Islamic sciences be systematically translated and integrated into Arabic literature and largely contributed to the development of what is called "Islamic sciences".

According to Dimitri Gutas, development of sciences under court patronage existed under the Sasanians in Pre-Islamic Iran. This author explained how the Sasanians appropriated Greek sciences and attributed them to the their Good God, Ahuramazda (or Ohrmazd). Examining three Zoroastrian sources, Gutas concludes that the Zoroastrian account of the transmission of sciences is as follows:

> Zoroaster received from Ohrmazd, the Good God the texts of the Avesta, which include all knowledge. The destruction wrought upon Persia by Alexander the Great, however, caused these texts to be dispersed throughout the world. The Greeks and the Egyptians derived their knowledge from these Zoroastrian texts which Alexander had translated into Greek and Copic. Subsequently Sasanian emperors took it upon themselves to collect all these texts and the knowledge that was derived from them from the various places where they had been scattered: India, Byzantium and China.[6]

Gutas maintained that this happened through a process that he called the formation of the "Zoroastrian Imperial ideology". The elaboration of the "imperial ideology" necessitated the translation of scientific texts, such as medicine, astronomy and philosophy, from around the world and their

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4 Saunders, *A History of Medieval Islam,* p. 80; C. Edmund Bosworth, *The Islamic Dynasties* (Edinburgh: Edinburgh University Press, 1967), p. 5.

5 About the role of these men in the administrative reforms under the Abbasids, see Muhammad Qasim Zaman, *Religion and Politics under the Early 'Abbasis: The Emergence of the Proto-Sunni Elite,* (Leiden, New York, Koln: Brill, 1997), cf especially Ch. 3. On Ebn Moqaffa‘ and a translation of his book to Caliph al-Ma'mun for the state and religious reform, see: Charles Pellat, *Ibn al Muqaffa ' : « conseilleur du calife* (Paris: Maisonneuve et Latrose, 1976).

collection in a royal library that was called "house of wisdom". According to Gutas, this appropriation made through translation created a "culture of translation" that in turn was transmitted to the Abbasid caliphate when the caliphs borrowed the Sasanid "imperial ideology" along with its administrative system. The culture of translation was thus at the origin of the translation of Greek sciences into Arabic.

The "appropriation of knowledge" that Gutas implicitly qualifies as "plagiarism" and attributes to Zoroastrianism reflects is rather universal phenomenon that has been a vehicle for the transmission of sciences. According to Islamic religion, all human knowledge belong to God and therefore sciences are the manifestation of divine wisdom. They exist on the divine Table, *lowh-e mahfuz* (lit. conserved table), before being occurred in, or formulated by, the men of science, whether Moslem or not. Astarâbâdi, a cleric-doctor in nineteenth-century Iran admonished the modern-educated doctors in the following terms: "You do not appreciate the merit of your medicine [i.e. traditional medicine]. Observe the history of the *Haramân* dome.[7] This [medical] knowledge is the heritage of the Prophet Idris and all other prophets used it until the last Prophet Mohammad, who perfected it. The *Tibb al-Nabi* (medicine of the Prophet), the *Tebb al-Rezâ* (medicine of Imam Rezâ) and the *Tebb al-A'emma* (medicine of the Imams), are all available and in fact the source of physicians such as Avicenna were the right Traditions of the Prophets…"[8]. The phenomenon of appropriation has also its roots in the ethnocentrism of the human societies. We see, for instance, that Ibn Rizwân al-Misri (from Cairo) (died *ca*. 1067), the eminent physician under the Fatimid in Egypt, claimed that it was Egyptian medicine that was carried to the Greeks. In other words, the Greek authors, such as Hippocrates, Plato, Aristotle, and Theophrastos, who were praised by the Arabs were in fact the bearers of Egyptian (Arab) knowledge.[9]

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6 Dimitri Gutas, *Greek Thought, Arabic Culture*, pp. 40-41.

7 Heramân or Haramân, (two domes) refer to two of the pyramids in Egypt that are said to have been built by the Prophet Idris (from Egypt), or according to some, to Hermes, the Greek, in order to protect sciences from deluge, tornado or storm. See Dehkhodâ, *Loghatnâmeh*, vol. I, p. 1571-3 and vol. XV, p. 23540.

8 Astarâbâdi, Safineh-ye Nuh, Quoted by: Hormoz E… Religion and Medicine in Qajar Iran, p. 419.

9 Sami Khalaf Hamarneh, *Background of Yunani (Unani), Arabic and Islamic Medicine and Pharmacy*, edited by Hakim Mohammad Said (Karachi: MAS Printers, 1997), pp. 135, 137.

Although Gutas' argument is centred on the construction of "imperial ideology", this latter was by no mean the goal in itself but means of reinforcing and consolidating the central state. The mere translation of scientific texts and syllabus for practical or ideological reasons existed also out of the Sasanian Iran. From the fifth century, the Nestorians and Jacobite scholars, who were not under the Satanic sovereignty, translated Greek writings into Syriac without aiming at the construction of imperial ideology. What is, however, important is that the house of wisdom was part of the state apparatus and it is within such a framework that the translation of scientific texts takes significance and can have a long-lasting effect on the transmission of knowledge. By the same token, it can be argued that in the Islamic history the elaboration of Islamic orthodoxy or ideology, even though there were different schools of theology, was tightly associated with the establishment of Islamic power.

If Islam was going to expand beyond the Arabian desert, it needed to come in peaceful relationship with the populations of other countries. The message of tolerance of the Prophet towards "the peoples of the Book", namely, Christians, Zoroastrians and Jews, was a mere strategy aimed at reducing the enemies of Islam since principally all non-Islamic creeds, whether monotheist or not, were refuted by Islam. This went hand in hand with other hadith (or traditions) of the Prophet enjoining the believers "seek … learning though it be in China" or "seek knowledge from the cradle to grave".[10] Such traditions obviously justified or favoured the acquisition of knowledge be it non-Islamic.

Nevertheless, "the peoples of the Book" should pay *jaziya* or poll-tax if they refused to convert. And even when they converted to Islam, they were treated as inferior class and called *mawâli,* plural of *mawlâ,* meaning client, protected, freed slave. The social segregation between Arab and non-Arab that was created in the aftermath of the early conquests, gradually petered out as the conflict of interest arose among the Arabs themselves. As long as the *mawâli* (or the converts) were small in number, they did not dare to stand against the Arab domination. With their number growing, however, they rose their voice against the social and racial discrimination practiced by the Umayyad. The Arab dissidents relied on discontent *mawâli* to fight against the

[10] M.I.H. Farooqi, *Medicinal plants in the traditions of Prophet Muhammad,* (Lucknow, Sidrah Publishers: 1998).

Umayyad's sovereignty. The resulting political alliance between the Arab dissents and the *mawâli* provided a favourable ground for social and cultural integration and furthered the assimilation of knowledge and sciences belonging to the *mawâli*.

Formation of Islamic *shari'at*

The territorial expansion of Islam in a relatively short period between seventh and ninth centuries, was not synonymous of the expansion or establishment of the Islamic faith or the definition of Islamic orthodoxy. It is necessary to distinguish here the conversion of the population of the conquered countries to Islam from the development of orthodoxy. The establishment of the Islamic schools of law can be traced in the early years of Islam after the death of the Prophet in the regions close to the birthplace of Islam, while the populations of the conquered countries did not convert as soon as they were submitted. Moreover, if one can talk about orthodoxy in Islam, there was not one, but several because there was no central authority able to impose and ensure the application of one school of Islamic law.[11] However the process of Islamisation might be, both the expansion of the faith and the demarcation of Islamic orthodoxy were gradually achieved well after the end of territorial expansion. In the newly conquered countries, the primitive Islamic creed could hardly find audience. Although the main schools of Islamic law (Mâleki, Hanafi and Shâfe'i) were principally based on the Koran and the *hadith* (traditions of the Prophet), the Islamic scholars made also a selective use of non-Islamic sciences. Greek philosophy was of particular interest to them because it could help them to defend their faith against many Christians who lived in the newly conquered lands.[12] It was the need for providing Islamic *shari'at* with intellectual and philosophical consistency that led to the assimilation of non-Islamic sciences. Aristotelian and Galenic ideas were incorporated into Islam as part of the overall formation of the Islamic philosophy, illustrated, among others, in the teachings of Avicenna. The assimilation of humoral theories took place because it belonged to a

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11 Hawting, *The First Dynasty of Islam,* p. 6.

12 H. Floris Cohen, *The Scientific Revolution: A Histotiographical enquiry,* (Chicago, London: University of Chicago Press, 1994). See also G.E. von Grunebaume, *Islam: Essays in the Nature and Growth of a Cultural Tradition,* (London: Routledge, 1969); J.J. Saunders, "The Problem of Islamic Decadence", *Journal of World History,* 7 (1963): 701-720.

worldview that for example could explain distinction between the intellectual faculties of the soul, which transcend the body and the sensitive faculties of the body, which are lodged in the body and disappear with death. Such a distinction borrowed from Aristotelian philosophy provided explanatory tool for the prophecy and the separability of soul after death, a principal element of escatology.[13]The relationship, in philosophical as well as medical terms, between spirit, soul and body in Galenic medicine, on the one hand, and the relation between soul, knowledge and God, in existential or theological viewpoints in Islam, on the other, produced over time an intrinsic interrelation between religion and medicine in Islam as seen at different levels in both medicine of Avicenna and medicine of the Prophet.[14] It is for this reason that in medieval period, whether in Islam, Christianity or Judaism, but particularly in Islam, medicine and philosophy went together and usually learned physicians were also philosophers, hence the term *hakim,* that signifies both physician and philosopher.[15]

It should also be born in mind that the first generation of Islamic scholars were converted from Christianity or Zoroastrianism. With their background education being in non-Islamic sciences, it was rather natural that the new converts acknowledged their ancestral sciences as sciences. As a result, when these sciences were transmitted to the following generations, they had already been endowed with some religious or ancestral legitimacy. Accordingly, later scholars divided sciences into two categories: *'Olum-e Avâyel* (pre-Islamic sciences, such as philosophy, mathematics, medicine, music and so forth; and *'Olum-e avâkher* (or Islamic sciences, such as *hadith, shari'at* or religious law and jurisprudence, commentary on Koran, etc).[16] This division further justified non-Islamic corpus of knowledge, inasmuch as they were recognized as *'elm* and this legitimised it from religious and faith point of

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[13] D. Gutas, "Intuition and Thinking: The Evolving Structure of Avicenna's Epistemology", in: Robert Wisnowsky (ed.), *Aspects of Avicenna* (Princeton, Markus Wiener Publishers, 2001). For a study of relation between surgery and Shafe'I school of Law in Islam, see Emile Savage-Smith, Attitudes toward dissection in medieval Islam, *Journal of the history of medicine and allied sciences,* vol. 50, no. 1, 1995: 67-110.

[14] See preface of S.H. Nasr to Ibn Qayyim al-Jawziyya, *Medicine of the Prophet.*

[15] Seyyed Hoseyn Nasr, *Science and Civilization in Islam,* (Cambridge, Massachusetts: Harvard University Press, 1968), p. 184.

[16] Shams al-din Mohammad b. Mahmud Âmoli, *Nafâyes al-fonûn fi 'arâyes al-'oyûn*, The precious branches of learning in the quintessential sources of knowledge, edited by Hâj Mîrzâ

view. In other words they reconciled other sciences with Islam in an attempt to remove any contradiction and antagonism between them. These two corpus of knowledge were therefore taught and discussed in parallel in the Islamic schools. Medicine was one of the pre-Islamic sciences together with mathematics, astrology, music, and others. This also helped that a non-Islamic science such as Greek medicine based on humoral physiology to be integrated institutionally into Islamic scholarship and therefore be assimilated or added into magic and religious healing. By the same token and through the same institutional devise what was called medicine of the Prophet and the Imams, based on healing property of the verses of the Koran and on medical or hygienic recommendations the Prophet and the Imams, also integrated elements of humoral physiology. That is why in many medical texts both religion and magic healing as well as Galenic medicine were incorporated.[17]

Once the Islamic community was permeated by Islamic faith, everything was to be justified by the Hadith and by the Koran. In such a situation everything, including medical knowledge, whether it belonged to the Islamic community or not, was to be blessed or approved by the words of Koran or the Prophet and other saints. The prophetic medical instructions or precepts seems to be rather the result of the observation or experiences that were made by others but that later on were attributed to the Prophet. Just as in other prophetic "traditions", the medical instructions were narrated down to the contemporary *ommah* through several narrators who were considered the great authorities in Islamic knowledge. For example, a *hadith* (lit. An event or experience that occurred in the life of the Prophet and that the Prophet advised it to his companions) about the utility of one of the medicinal plants, such as safran, was narrated by Zaid b. Arqam, who narrated from Tirmizi, who narrated from Ibn Maja, who narrated from Masnad Ahmad, who narrated from the Prophet.[18] It seems unlikely that the Prophet collected or made systematically these experiences. The fact that some of these traditions talk about medical qualities of herbs or foods that were unknown to the contemporary community of the Prophet sustains this idea. In a tradition, for instance, the Prophet says: "rice has healing powers". This was narrated by

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Abul-Hasan Sha'rânî, Library Eslâmiyeh, 3 volumes, Tehran, 1958.

17 See for example: Mirzâ Musâ Sâveji, Dastur al-Atebbâ, and many other tracts on cholera or plague.

18 Farooqi, *Medicinal plants*, p. 78.

'Ayesha and Al-Soyuti. However, rice, a principal cereal of the wet regions of the tropics was not the staple food of the Arabs during the time of the Prophet.[19]

Islam and medicine in modern period

The intimate link between the formation of the Islamic religion and development of sciences in Islamic countries not only led to the Islamisation of sciences and philosophy, but also to the monopole of the religious establishment on education. As a result when modern sciences were introduced into Islamic countries the religious scholars found themselves at the interconnection between sciences and faith. As education was controlled by the religious establishment, most learned physicians in Islamic countries were religious scholars, the Mullahs. It is not surprising therefore that the Unâni medicine in the Indian subcontinent, a version of Galenico-Islamic medicine has preserved its faith in religion despite the fact that it has integrated many concepts and techniques of modern medicine, and undergone institutional and professional transformation similar to what happened in the West.[20] The inherent link between Galenico-Islamic medicine with religion can be illustrated in the words of the physicians of Unâni medicine who believe that traditional medicine is not only a science but also an art and many of its principle cannot be explained, while modern Western medicine is meant to be pure science.[21] It was due to this intimate relation with religion that when medicine was modernised in Iran, those traditionally-educated physicians who studied also modern medicine and adhered to it, left their traditional attire and adopted modern costume along with abandoning humoral theories in favour of microbiology.[22]

The introduction of both medieval Greek medicine and modern Western medicine into Islamic countries was affected by socio-cultural and

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19 Farooqi, p. 150.

20 For an account on changes undergone by Unani medicine see C. Liebeskind, "Unani Medicine of the Subcontinent", in Jan van Alphen et al, (eds), *Oriental Medicine*, London: Serindia Publications), pp. 39-65.

21 See Foreword by Hakeem Abdul Hameed, to the book of Altaf Ahmad Azmi, *Basic Concepts of Unani Medicine: A Critical Study* (New Delhi: Hamdard Nagar, 1995).

22 On this question see: H. Ebrahimnejad, "Religion and Medicine in Iran: From relationship to Dissociation", *History of Science*, 2002.

political factors. The state patronage played a fundamental role in their promotion and development. However, with regard to religion the reactions of modern and Galenico-Islamic medicine were different. While in the medieval period, Greek medicine, as an integral part of the Greek sciences, became involved in the formation of Islamic cosmology, and therefore crossed through religion, in the modern period, modern medicine was opposed by Islamic orthodoxy and therefore its assimilation into the society necessitated to circumvent religion. The different relationship between religion and medicine in ancient and modern times are due to different worldviews. Dissection of human body existed in both medieval Galenico-Islamic medicine and in modern anatomical pathological medicine, as a principal method of understanding the body and its illnesses. However, this principle became a dead letter in Islamic medicine because for Islam human body was sacred, and the noblest creatures of God. The situation was not much better in Christian countries. Surgery was markedly absent in Latin and Anglo-Saxon medical writings at the end of the first millennium.[23] In Byzantine medicine too, although bloodletting and bonesetting were current, surgery with knife was not a major part of the Byzantine medical practice.[24] This was at the origin of the gap between theory and practice in Galenico-Islamic medicine, and the fact that Galenic medicine did not make progress throughout medieval period in anatomy and pathology. Modern medicine, on the other hand, posed human body as an object of knowledge; it was not sacred and therefore could be dissected. The bookish nature of medical knowledge affected both medicine and surgery and many physicians read them in the books and never tried to practice to the extent that it was even said that Hippocrates was also a bookish physicians and asked his students to practice surgery.[25] Most learned medical books, such as *Majma' al-javâme'* of 'Aqili (18th century), that contained large chapters on surgery, pharmacology and hospital, were essentially based on theoretical knowledge.

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[23] Audrey Meaney, "The Practice of Medicine in England about the Year 1000", *Social History of Medicine*, 2000, vol. 13, no. 2, pp. 221-237; Klaus-Dietrich Fischer, "Dr Monk's Medical Digest", *Social History of Medicine*, 2000, vol. 13, no. 2, pp. 239-251.

[24] Emilie Savage-Smith, "The Practice of Surgery in Islamic Lands: Myth and Reality, *Social History of Medicine*, 2000, vol. 13, no. 2, pp. 307-321, p. 307.

[25] Anonymous Persian Manuscript on the establishment of hospitals, ca. 1865 (Tehran, Majel Library, MS 505)

Despite these contradictions in principle between traditional and modern medicine, modern anatomo-pathological medicine has been assimilated into contemporary Islamic societies according to, and within the framework of, socio-political conditions. The antagonism between religion and modern medicine was absorbed by socio-political factors that underpinned the assimilation of modern medicine. The study of this question for countries where Galenico-Islamic medicine was dominant at the turn of the 19th century falls out of the scope of this paper. The cases of Iran and India can, however, illustrate how this process took place.

In Iran, modern medicine was introduced into the country through state patronage. The Qâjâr elite in their endeavours of reinforcing the central state needed to modernise the army and with it they introduced modern sciences and techniques without taking into account that they could come into conflict with Islamic tenets or with religious establishment. Nevertheless, for the latter, the threat of modern sciences was not immediately felt. First because it was not widespread but limited to the activity of some court physicians and a few regiments, and secondly, the education of modern sciences was also limited in mid-nineteenth century to one state school, the Dâr al-Fonun. Moreover at the Dâr al-Fonun, both modern and traditional sciences were taught. Thirdly, the Qâjâr state was not under colonial domination and the education of modern sciences by the Europeans did not provoke a strong anti-Western reaction. This is a crucial point because the socio-political movements against the Qâjâr power that developed towards the end of the nineteenth century were strongly influenced and, by and large, guided by the religious establishment. This movement, in any case was not an anti-colonial but rather against the interference of foreign powers in the affairs of the country. This fact is important insofar as the opposition to modern Western medicine was not a principle or an absolute value per se but the consequence of socio-political factors; just as its acceptance and assimilation took place within the socio-political framework not always commanded by religious tenets. Accordingly, despite the fact that socio-political movement in Iran was more influenced by religious establishment than in India, Galenico-Islamic medicine did not become a political instrument against Western influence. We can better appreciate this point if we bear in mind that the basic medical education took place in the *madrasa* (Islamic college of theology) and that, as we have explained above, medicine was epistemologically linked to religion.

Furthermore, the Qajar state continued sponsoring traditional *tabib*s (physicians) after it employed also Western physicians at the court. This policy reflected the relatively strong presence of traditional medicine at the court. Even though there was a marking preference among the Qajar elite for Western medicine, this preference was devoid of any discriminative policy towards local traditional physicians. As modernization of medicine was part of the state building process, the local elites, including the court physicians, participated in this modernization. They were actively involved in the establishment of modern medical institutions, especially the military hospitals and sanitary councils. This institutional involvement brought naturally traditional court physicians into new intellectual environment that thwarted religious or nationalistic opposition to modern medicine. Moreover, within such institutional and intellectual contexts, traditional physicians did not find it necessary to seek religious justification for the practice of modern medicine. While in the medieval period, Galenic medicine was received through the overall integration of Greek sciences into Islamic scholarship, in modern period, modern Western medicine was accepted and assimilated as such without going through religious or faith justification.

In the colonial India, on the other hand, the situation was different. The Unâni (or Greek) medicine was introduced into India since twelfth century and it flourished especially under the Mughal emperors from mid sixteenth-century onward who sponsored many emigrants Iranian physicians. Although some medical texts in India were in Arabic, most were written in Persian, the official language at the Mughal court. In general the patronage of physicians and the construction of hospitals by the Mughal princes was more extensive than in Iran. During the Mughal reign, some European physicians came to India during the seventeenth and eighteenth centuries and were also sponsored by the court. The Indian hakims became acquainted with some aspects of modern (clinical medicine). So far there was no fundamental opposition with Western modern ideas. The conflict began with the establishment of the British India government that favoured modern medicine but declined to support Unâni tebb. Unâni medicine continued to be taught at the Native Medical Institute in Calcutta until 1835 and at Lahore University up to 1907, and some *hakims* were also employed in the rural areas but these were not aimed at further

developing Unâni medicine.[26] The end of state patronage was a bitter experience for the hakims who were traditionally sponsored by the Indian Sultans for several centuries. This had a long-lasting effect in the history of medical modernisation in India insofar as it led the Indian hakims to associate Western modern medicine with colonial power and therefore to see it as an instrument of colonisation. The opposition to modern Western medicine had thus far more a nationalist motive than in countries like Iran.

Nevertheless, the anti-colonial stance of Unâni medicine and its revival especially during the Independence did not prevent the assimilation of modern medicine in India. In fact the Unâni medicine integrated elements of modern medicine in order to survive. For this reason, this survival is more institutional than theoretical. Consequently, in such a move, Unâni medicine ignored its ideological links to religion, just as did the traditional Galenico-Islamic medicine in Iran in the process of its transition to modern medicine in the nineteenth and twentieth centuries.

Conclusion

Today, there are many discussion about the revival of traditional or alternative medicine and especially the role of religion in medical practice and in healing. The question of antagonism between religion and modern medicine is also considered an outdated issue, for anthropological or even conceptual reasons. In Russia, for instance, faith healing has become a flourishing practice despite the statistics showing that it had an extremely poor record, and in some cases it has led to disaster. There is no doubt that, as social and anthropological phenomena, such practices should be studied. It is, however, undeniable that, as the survey of the formation of Islamic medicine in this paper aimed to show, there is no epistemological link between religion and modern medicine. Such a relationship was rather inherent in Galenico-Islamic medicine in that they were formed through parallel intellectual and ideological processes. Setting aside theoretical issues, we can say that with modern sciences becoming pervasive in everyday life, it is not any more practical to retain relation between religion and medicine and to justify the practice of modern medicine by resorting to the tradition.

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[26] J.C. Hume, "Rivival Traditions: Western Medicine and Yunani Tibb in the Punjab, 1849-89, *Bulletin of the History of Medicine,* 51 (1977: 214-31).