



Avicenna's Approach to Health: A Reciprocal Interaction Between Medicine and Islamic Philosophy

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Abstract

This paper elucidates how Islamic philosophy is associated with health and illness. Avicenna (980–1037) as the most important physician and philosopher in the Islamic world has undoubtedly affected various fields of thought and science in Islamic civilization. The basis and infrastructure of his understanding of medicine derive from his philosophical and religious views. According to Avicenna, the soul and body are two intertwined substances from which all human beings are composed. This reciprocal interaction between soul and body is essential in analyzing his medical concepts related to “health” and “sickness.” Other than soul, he believes in spirit which is originally a religious concept that he interprets. Avicenna distinguishes between soul and spirit ($\approx r\ddot{u}h$) and poses that, as an ethereal volatile substance, the spirit is a mediator between soul and body. He also proposes a hierarchical system of spirit through which he illustrates a special type which is called “*Rūh Bukhārī*” (= *RB*). Faculties of the soul firstly penetrate into this type of spirit and then enter the body's organs. Consequently, health and sickness are interpreted through the terms and conditions of *RB*.

Keywords Avicenna · Health and sickness · Temperament (*mīzāj*) · *Rūh Bukhārī* · Soul · Body · Spirit

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Introduction

The discussion of health and illness in Avicenna is found in his philosophical and medical contexts. According to his classification of sciences (e.g. see Avicenna 2004a, 1), philosophy contains the principles of all sciences (*'ulūm*). Therefore, medicine is considered a subset of philosophy (*ḥikma*)¹ in general, such as the principles of natural sciences and mathematics. As a result, someone who is specialized in medicine is learned in philosophy and someone who is specialized in philosophy is also knowledgeable in medicine. Possibly more than any other reason, this is why the physician was called “wise” (*ḥakīm*) (cf. Avicenna 2004d, 54; Ibn Juljul 2005), the word which was attributed to all knowledgeable individuals.² Avicenna’s interest in philosophy and his compilation of various intellectual works led him to analyze and evaluate “health and sickness” with a philosophical approach.

Avicenna wrote several books on medicine in Persian and Arabic. It has been noted that “Among his medical writings, the foremost contribution was the magisterial *Canon of Medicine (al-Qānūn fī al-ṭibb)*, which for at least six centuries was considered the definitive text in the field throughout both the East and the West and is used even to this day” (Groff and Leaman 2007, 94). As Goichon³ indicates: “it [*Kānūn fī 'l-ṭibb = Canon of Medicine*] still remained more accessible than Hippocrates and Galen, it served as a basis for even centuries of medical teaching and practice. Even today it is still possible to derive useful information from it” (1986, 942).

The Principles of Health and Illness in Islamic Philosophy

In *al-Qānūn fī al-ṭibb*, Avicenna considers medicine as possessing both speculative and practical aspects (1973, 25). He believes that the theoretical dimension of this science includes principles which have produced the science of medicine, and thus, the physicians’ treatment is performed—consciously or unconsciously—according to these principles. According to Avicenna’s description, Gutas (2003, 152) has classified this idea to the four following categories:

¹ Avicenna considers all classified sciences as branches of *ḥikmah* (philosophy). For instance, see Avicenna (1908). *Aqsām al-ḥikma in Tis' rasā'il fī al-ḥikmah wa-al-ṭabī'iyat (the branches of philosophy in nine books in philosophy and physics)*. pp. 104–120. Cairo: Maṭba'ah Hindīyah; Avicenna, *Dāneshnāme-ye 'Alā'ī* (Encyclopedia of 'Alā'), *Ilāhīyyāt* (Philosophy), ed. Mohammad Mo'in, Hamadan: University of BūālīSina, 2004, p.1.

² It is not surprising that in the history of Islamic culture, two of the greatest physicians have been also well-known philosophers (*ḥakīm*). One of them is Zakarīyyā al-Rāzī (also known by his Latinized name Rhazes or Rasis, (854–925), and the other one is Avicenna (980–1037). Avicenna was the master of both philosophy and medicine not only is the foremost philosopher, but also is arguably the foremost physician of his time.

³ She is one of the most important scholars who studied about Avicenna in the twentieth century.

- a. “The theory of the theory of medicine,” i.e., the theoretical foundation of medicine which provides the bases and proves the principles of the craft (*ṣināʿa* = *τέχνη*) of medicine is discussed in physics or natural science—it is outside of medicine;
- b. “The theory of medicine itself,” i.e., the theoretical part of the craft of medicine, which consists of knowing these principles;
- c. “The theory of practice,” or the practical part of the craft of medicine, which consists of knowing, also in a tomographic form, the procedural guidelines for the application of medicine;
- d. “The practice itself,” i.e., experience, observation, and sense perception ... which constitutes the actual practice of medicine—these also lie outside the craft of medicine proper (Gutas 2003, 152).

Elsewhere, Avicenna has introduced medicine as a subset of philosophy as well as a branch (1908, 110). Therefore, every theoretical medical discussion is rooted in Islamic philosophical concepts, whether we may reach or may not reach the philosophical concepts underlining it (Ibid). Gutas (2003, 147) also says:

“The division of the intellectual sciences later in his life, Avicenna changed his mind and demoted medicine even further. In the introduction to one of his last summa of all philosophy, *The Easterners*, he divided at the very outset all sciences into two, fundamental and corollary, eventually subdividing the former into the theoretical and practical, while relegating medicine, along with agriculture, astrology, etc.”

From the explanation above, and based on what Avicenna has said about the relationship between medicine and philosophy, one can fathom the influence of philosophical principles on medicine.⁴ One of the most important of these principles is “the theory of soul and body” as two inherent and inseparable substances. For Avicenna, the human being is a two-dimensional being consisting of a body and a soul, and his philosophical psychology is based upon the duality of these two bases. Soul and body are two intertwined substances that every human being is composed of. Neither of these two can be eliminated, nor can they be separated from each other (cf. Avicenna 1983a, b, 5–14). Therefore, man in this viewpoint is neither a physical object nor a spiritual one. Among them, soul is superior to body and thus can control the body. Like the codependency between a boss and his employee, soul and body require each other, but as an immortal, immaterial, and inviolable truth, soul dominates and controls the body as unstable essence (cf. Avicenna 1952, 90).

Furthermore, we will find out how this two-dimensional relationship between soul and body is effective in analyzing the fundamental concepts of Avicenna’s medicine. In other words, soul has an effectively active presence in some medical debates, including interpretation of health and sickness, classification, formation of various types of diseases, and the treatment of the ailments. In light of this concept,

⁴ In *Avicenne (XIe Siècle), Théoricien de la Médecine et Philosophe: Approche Épistémologique*, Floréal (2009) has explained some more connections between medicine and philosophy in Avicenna’s approach.

it is possible to present a meaningful discussion of these fundamental concepts. On the other hand, this reciprocal interaction between the soul and body has also been analyzed from a psychological perspective by Avicenna. He has some arguments about soul's self-efficacy and its effect on health and disease.⁵

Key Concepts in the Context of Health and Illness

The close connection between Islamic philosophical and medical topics on the one hand, and the complexity of human existence on the other, has led us to face a complex conceptual network about health and sickness. This complexity is further enhanced by several key terms related to the notion of health and sickness from diverse cultural and linguistic backgrounds. Some of these terms come from ancient Greek texts, some come from Islamic works, and some others have their roots in ancient Persia. In relation to the health and sickness for one, only three states are conceivable:

1. Health
2. Sickness
3. Neither health nor sickness

Avicenna (1973, 26) strongly disagrees with the third part, and he has considered it as a misconception. He and all the Muslim physicians, who followed him, believe that only two of the first conditions (health or sickness) are conceivable. Health is a state in which the body works properly, in contrast to sickness which is opposite to health. The basic idea is that health is defined as a key concept, and sickness is the negation of it.⁶ Now, it can be asked how health is defined as a state in which the body works properly. Avicenna has not defined health explicitly, but according to his explanations, it can be inferred that health is a “state of moderation,” “balance,” and “equilibrium” (*i'tidāl*) (Avicenna 1973, 58). This prompts us to inquire what is meant by “equilibrium.”

Logically, balance requires at least two things, and consequently, “equilibrium” refers to a comparison. Accordingly, the definition and understanding of equilibrium at least need two concepts. This is where one of the founding principles of ancient medicine is revealed, and that is the theory of “The Four Humors.” This theory is closely related to or perhaps based on another theory called “The Four Elements.” These four are simple and indivisible. They are not composed of any substance, but they themselves are the material cause of all things. These are water, earth, air, and fire (Avicenna 2004d, 3–4).

What is famous in the history of thought is that the “theory of the elements” is attributed to ancient Greek philosopher Empedocles. However, in ancient Persia and

⁵ For more information about Avicenna's psychology, see Sīāsī (1954). *Ravān shināsī-ye Ibn Sīna (Avicenna's psychology)*. Tehran: University of Tehran Press; Kaukua (2015), *Self-awareness in Islamic philosophy: Avicenna and beyond*, Cambridge University Press. 2015, pp. 12–89.

⁶ As a universal concept which implies to many disease, “sickness” should be negation of “health”.

India we can also find a similar theory (Sarton 1927, 96–97). The ancient Persians used the term “*Ākhshīg*” instead of the element and emphasized the four *Ākhshīg* as the principle elements of the natural world (*Gītī*) (cf. Mazda pour 2007, 241).⁷ In the Islamic tradition, sometimes the word “*unsur*” and sometimes “*ustuqus*” have been used for “elements.” The word “*ustuqus*” is a Greek word that was transferred to Arabic during the famous translation movement.

In the light of this theory, philosophers responded to the question of material causes of the universe. It seems that these four materials did not decompose, but they were combined and constituted natural substances which also include human temperament (*mizāj*). Thus, the temperament of humankind is constituted by these four elements.

Muslim physicians (for example, Ṭabarī 1928, 11), like most of the ancient naturalists, believed that each element possesses two qualities of the four ones. These qualities are warmth, coldness, moisture, and dryness.

- Fire has warmth and dryness.
- Air has warmth and moisture.
- Water has coldness and moisture.
- Earth has coldness and dryness (Avicenna 2004d, 4).

Human beings or at least their physical bodies are created by combining these four elements. Every combination has its own name (humor) and character. Thus, in humans there are four humors (*akhlāṭ*) which are interwoven in opposing pairs.

- Yellow Bile (*ṣafra*), a condition composed of both warmth and dryness.
- Blood (*dam*), a condition composed of both warmth and moisture.
- Phlegm (*balgham*), a condition composed of both coldness and moisture.
- Black Bile (*saudā*), a condition composed of both coldness and dryness (Ibid, 6).

The theory of the four humors is essentially tied to the notion of the state of balance or equilibrium that signifies health. Therefore, one humor may overcome another to disrupt the balance. Accordingly, our nature at every moment is submissive to one of these four humors. If temperament (*mizāj*) stays balanced and moderated, then it is in a state of health, but when it gets out of balance, then sickness develops. In fact, health is a direct result of the moderation of a temperament, whereas sickness is the lack thereof. According to this natural philosophical conceptualization, other ideas about health, sickness, treatment of sickness, and also pain⁸ are understandable and treatable in Avicenna’s opinion.

⁷ For more information about Iranian ancient medicine and its relationship with “soul” and “spirit,” see Najmabadi (1962). *Tārīkh-i tibb-i Īrān (history of medicine in Iran)* (Vol. 1). Tehran: Honar bakhsh, pp. 170–172.

⁸ For more information about the relationship between pain and temperament (*mizāj*), see Saeedimehr (2016) “The reason of the pain from viewpoint of Ibn Sīnā,” *Hikmatī Sinawī*, No. 56, 2016, pp. 5–16.

Treatment is defined as “the returning of unbalanced mode to a balanced state” (Avicenna 1973, 58), or as it was indicated earlier, treatment is “negation of sickness” that leads to moderation (*mu‘tadil*). Avicenna (1973, 57) defines temperament as: “a quality which results from the mutual interaction and inter-desire of the four contrary primary qualities residing within the four elements.” The translator of *Canon (al-Qānūn)* in Persian also explains the above discussion by the following:

“Among these four qualities, warmth and coldness can be considered as energy, while the moisture and dryness are considered as the matter” (Sharafkandī 1989, 11).⁹

Avicenna also divides temperament into moderate (balanced) and imbalanced modes and concludes that the moderate temperament (*mizāj mu‘tadil*) has eight facets. He also subdivides the imbalanced temperament into simple and complex and discusses them in detail (Avicenna 1973, 61).

Treatment

As mentioned, health is the state of being implied by a moderate temperament, and sickness refers to the state of being in an imbalanced temperament. The moderation itself is a balance between two extremes, whereas extremes can be considered as a kind of disease. What is significant for our discussion, here, is that the health is one, but diseases are numerous. In other words, health cannot be considered as plural (healths), while it is conceivable that “diseases” are many and multitudinous. In the medical texts, Iranian Muslim physicians have discussed in detail about the conditions and characteristics of temperament, the signs of its degeneration, and treating each one. They have mentioned that as many as 35,000 various diseases may develop due to the lack of moderation in temperament (Musavi Bujnūrdi 1998, 7:200).

Avicenna argues that a physician can diagnose a disease by knowing the symptoms, but a better knowledge can be acquired when the physicians are able to identify both the material cause and its efficient cause. The material cause is the same as what was talked about it in the argument of four humors (*akhlāt*), where temperament is an integrated unity composed of a combination of several material elements (the theory of four primary elements). In relation to efficient causes, Avicenna refers to the factors that either keep our body persistent and fix, or put it in a state of flux. These factors are considered necessary for the diagnosis of disease, treatment, and even the prevention of them. Some of these factors are as follows: “the air and affiliated agents; food, water, sleep, awakening, job, (the land) environment, housing, activity, longevity, gender, and habits” (Avicenna 1950, 4).¹⁰

⁹ The notion of “energy” is modern and we have to be cautious to attribute it to warmth and coldness easily.

¹⁰ There is a slightly difference between the original book of *Canon* (Arabic version) and its English translation about classification of these factors. You can find this difference in: Avicenna, *Treatise on the*

Among these types and their relation to the theory of “moderate temperament,” Avicenna offers a remarkable explanation about the moderation of the environment and human communities. He believes that the temperaments vary widely depending on the environment. For instance:

“This is a special equability to the race, climate, geographical position or atmosphere. The Hindus, in health, have a different equability to the Slavs, and so on...So if a Hindu were to develop the temperament of a Slav he would probably fall ill, and might even die. So, too, if the temperament of a Slav should come to be that of the Hindu, for the state of his body is contrary. So it seems that the various inhabitants of the earth have received a temperament appropriate for the conditions of their particular climate, and in each case there is a corresponding range between two extremes” (Avicenna 1973, 60).

It should be noted that what Avicenna says in this statement has no contradiction with previous statement. It was already explained that health is single and not numerous, but in the above sentence Avicenna distinguishes between Hindu’s health and Slav’s health. Thus, it seems that there are many kinds of health. To solve this problem, it must be said that temperaments can be varied, but health is unique. Temperaments can make the health and sickness, but they themselves are neither health nor sickness. Avicenna in the recent expression is introducing the causes of health not the kinds of health.

Psychological Disorders

So far, the notion of health and sickness is discussed primarily in relation to the physical body, where the notion of complex relation between the soul and body composite can be overlooked. However, the importance of a soul–body composite comes to the foreground when Avicenna discusses the causes of mental health and sickness. An unbalanced relationship between body and soul not only may cause physical sickness, but also can lead to mental illness. It is the reason that has led Avicenna to pay special attention to the field of psychology.

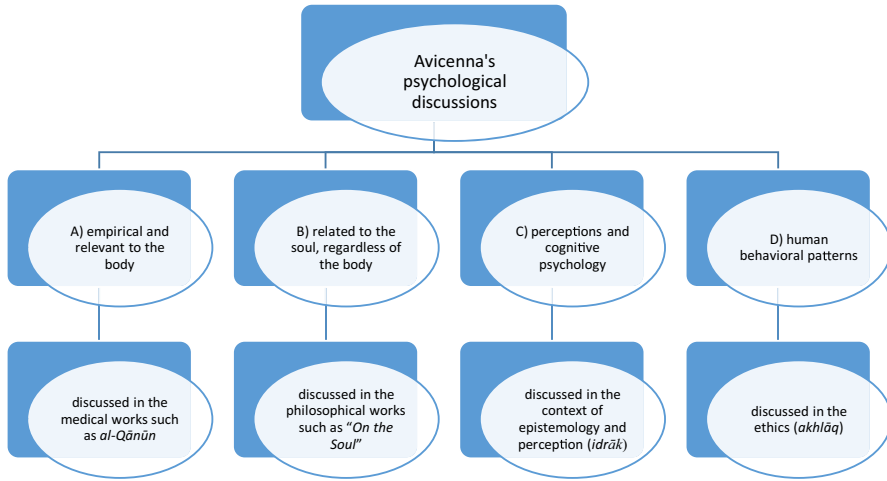
I classify his psychological discussions in four following categories:

- A. Cases those are entirely empirical and relevant to the body;
- B. Cases those are related to the soul, regardless of the body and its characteristics;
- C. Cases those are discussed about perception and cognitive psychology;
- D. Cases those are related to human behavioral patterns (do’s and don’ts):

Footnote 10 (continued)

Canon of Medicine of Avicenna (1973, 30) and Avicenna, *al-Qānūn* (1950, 4), Vol. 1, Beyrūt: Dār Sādir (Reprinted from Cairo: Būlāq).

Hierarchy chart no. 1



Discussions pertaining to group A are found in the medical works such as *al-Qānūn*. Discussions related to Group B appear in the philosophical works such as “*On the Soul*” (*al-Nafs*). Discussions about group C are mostly grasped in the context of epistemology, such as the subject of “perception” in *al-Ishārāt wa al-tanbīhāt*. Discussions regarding group D pertain to ethics (*akhlāq*).

What is related to this article is mostly included in groups “A” and “B,” and to some extent group “D.” In the history of the Islamic sciences, the only physician who wrote an independent dissertation on spiritual sickness prior to Avicenna is Zakariyyā al-Rāzī (D. 925) (cf. Rāzī 2005, 1–97). However, the rest of the Iranian Muslim thinkers have followed Avicenna in this regard.

The four elements, the four humors, and balanced or imbalanced temperament are all factors that can cause illness by disturbing the state of balance in the body; however, all of them are considered incomplete causes for Avicenna. For Avicenna, and many similar ancient physicians and philosophers, such as Aristotle and Galen, the soul is the principle of life and motion, and it is the primal cause for the state of health or sickness. Therefore, the main final cause of health or sickness, especially in psychological diseases, is the soul rather than the corporeal body. Thus, soul has multidimensional aspects and it creates a dilemma for Avicenna in respect of his psychological discussions. Should these debates be placed in philosophical part or medical one? He decided to categorize these discussions in the part of “natural philosophy” (*tabrīyyāt*) considering it before the metaphysics.

Rūh Bukhārī (RB)

Since Avicenna looked at both nature and humankind with a philosophical approach, the following principles appear to be inferable on the basis of his arguments:

- Soul is immaterial;
- Body is material;
- Soul and body are integrated in human beings;
- Separation of the soul and body in a living human being is impossible.

Two important questions about these principles can be posed:

1. How is the relationship between the soul and body?
2. How does the soul cause health and sickness?

The answer to these questions is related to a new term which is called “*rūh*” or “*rūh bukhārī*” which I consider abbreviation *RB* here after. In short, it is a volatile material and invisible substance that is likened to steam/vapor (Avicenna 1983a, 222). It is actually a mediator between soul and body, and moreover, it can be considered as a key concept to explain the relationship between medicine and metaphysics. The term “*RB*” is created in the Islamic works by Avicenna and his commentators, and it doesn’t appear in the previous works. However, its meaning and concept can be found in the works of some prior scholars like Galen¹¹ (in the Western tradition) and Qustā ibn Lūqā¹² (in the Islamic tradition).

Rūh bukhārī is composed of two words: “*rūh*” and “*bukhārī*.” The first word is mostly translated as “spirit.” Since soul and spirit are not straightforward words in English, the translation of “*rūh*” and “*rūh bukhārī*” cannot be very accurate, so different scholars have adopted different translations for them. For instance, in English version of the first book of Avicenna’s *Canon* (1973, 123–125), “*rūh*” has been translated to “breath” (*nafas*). This concept is also found in some religious sources like Quran, such as this verse:

“When I have proportioned him [man] and breathed into him of my soul, then fall down to him in prostration” (Qur’an, 15:28).

One of the most important Islamic scholars (Ṣadūq 1989, 171) has also considered “spirit” (*≈ rūh*) as “wind.” The etymology of these terms is particularly notable. In the Arabic language, the words نَفْس (soul) and نَفَس (breathing), as well as روح (*≈ spirit*) and رِيح (wind or wine), have the same syntactic root. In Persian language also, wind (*bād*) (باد) and wine (*bādeh*) باده grammatically have the same root (cf. Surūsh 2007, no. 36). Other than linguistic contribution, wine (*bādeh*) and spirit (*≈ rūh*) are the same genus, and because of this, wine affects to humans (Rāzī 2013, 80–82). Rāzī as the most important commentator (sometimes critique) of Avicenna

¹¹ For detailed information about Galen’s viewpoints, see Hall (2004). Intellect, Soul and Body in Avicenna. *Interpreting Avicenna: Science and Philosophy in Medieval Islam*. Jon McGinnis and David C. Reisman (Eds.). Leiden: Brill, pp. 74–77; Pormann (2013). Avicenna on medical practice, epistemology, and the physiology of the inner senses. *Interpreting Avicenna*. Peter Adamson (ed.) UK: Cambridge University Press, pp. 8–100.

¹² Cf. Qustā ibn Lūqā (al-Qūnna’ī) (1953) *al-farq bain al-rūhi wa al-nafs*. In Ibn-Sīnā, *Rasā’il*, Hīlmī Zīāülkān (Ed.). Istanbul: Maṭba’a Ibrāhīm Kharūz. pp. 83–94. In the title page of this treatise, mistakenly Qustā has been introduced as a Greek while he was not Greek. ‘Qustā ibn Lūqā al-Yūnanī should be changed to Qustā ibn Lūqā al-Qūnna’ī.

discusses in details how the relationship between wine and temperament (*mizāj*) is. He also explains advantages and disadvantages of wine (*sharāb*) for health (Ibid, 79–84).

Nevertheless, for two reasons it can be said that the translation of *rūḥ* (\approx spirit) to “breath” is not very accurate in Avicenna’s books: First, he divides *rūḥ* into four types (2004d, 8) and only one of these types can be equaled as a synonym of breath. In other words, *rūḥ* is more universal than the breath. The second reason is that in philosophy, breath is considered as an accident, but *rūḥ* is regarded as an essence (Avicenna 1983a, 226), so they cannot be used in the exact same place.

The word “*bukhārī*” literally means something which is related to steam. Peter Heath has translated “*RB*” as “vital spirit” or “life principle” (Heath 1992, 57). Some recent medical authors also tend to go for “vital spirit” or “vital power.” In the article of Yousofipour et al. (2015, 6:49), “vital spirit” or “cardiac spirit” is selected instead of *RB*. Javadi and Emami also have used “vital spirit” (2015, vol. 18, no. 8). Mosaddegh et al. (2013, 256–257) also speak of breath (\approx *rūḥ*) and “vital power.”

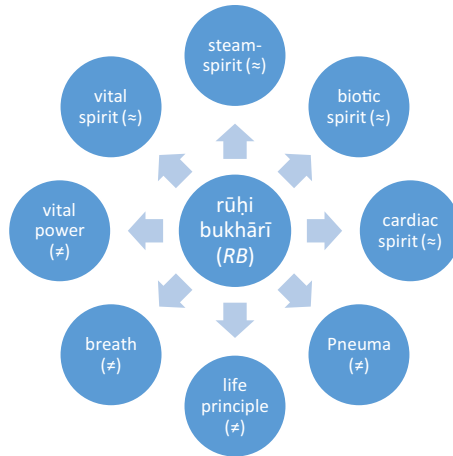
These translations are correct but not completely accurate. That is, they do not explain all Avicenna’s purpose. If we are asked to find English equivalent for “*RB*,” possibly the best expressions are “steam spirit” and “biotic spirit.” The aforementioned scholars have tried to find a definition for this specific term, but this term is more complicated than it is thought. For the following three reasons, the accurate and exact translation of “*RB*” cannot be possible:

1. The first reason is that the spirit (\approx *rūḥ*) takes on multiple meanings in Avicenna’s writings (cf. 2004d, 8). As discussed before, Avicenna proposes a hierarchical system of spirit which just one of its subsets is called “*RB*.” Therefore, it is very hard to distinguish between this type of *rūḥ* and other similar types as well as finding a precise translation.
2. Most of the classical philosophical (and even medical) terms which are used in English texts have a Greek background, but there is not a clear separation of body (as a material being), soul (as immaterial being), and spirit in the writings of Greek philosophers. Therefore, the terms related to hierarchical system of soul, spirit, and body in the Islamic context cannot find an accurate equivalent in the Western context.
3. The term “*RB*” is created as a bridge for connecting medical topics to philosophical ones. Therefore, it is neither entirely material nor completely immaterial (Avicenna 2004d, 8), and since it has been used only in Avicenna’s works and their commentators (cf. Ṣadr al-Dīn Shīrāzī 1992. Vol. 6. 57), finding a clear equivalence for that is a challenging matter.

“*RB*” is so volatile and delicate, and for this reason Avicenna has likened it to steam (*bukhār*) (1983a, 222; 2004d, 6). As it was mentioned before, “*RB*” is an adjective and means something that looks like the steam. This term has been designated only for identifying of quiddity of “*RB*,” without considering its function. Therefore, it seems that “vital spirit,” “life principle,” and all previous translations are slightly far from what Avicenna aimed to say. Indeed, the word “vital” implies

everything which is necessary for human life; however, Avicenna selects the term “steam” to emphasize the semi-material nature of “*RB*.”

Chart no. 2



It seems that Avicenna has a complex scheme of human being which is more possibly related to his more general understanding of “*nafs*.” This word goes some way beyond what is usually meant by the English word “soul” and “spirit.” It seems that there is a tension between Avicenna as a philosopher and Avicenna as a doctor.

According to his viewpoint, we have three main terms (2004d, 5):

- A. “Soul” which is equivalent to “*nafs*” (نفس) in Arabic and “*ravān*” (روان) in Persian.
- B. “Spirit” which is approximately equivalent to “*rūh*” (روح) in Arabic and “*jān*” (جان) in Persian.
- C. “Body” which is equivalent to “*jasad*” (جسد) or “*badan*” in Arabic and “*tan*” (تن) in Persian.

This triangulation appears to be in contradiction with what have been previously referred to as the dichotomy of soul and body. Avicenna is conscious to this problem and hence presents an interpretation of spirit which can solve this contradiction. In his idea, the spirit is not independent of the soul and body, but it is as an intermediary used to explain the connection between the soul and body. Type of interdependence between the soul and the body leads Avicenna to introduce the spirit (\approx *rūh*) as a mediator (2004d, 8–9). It is ontologically regarded as a part of the physical body, but the most subtle and volatile part of it. Consequently, there is not any real conflict between this triangle (soul, body, spirit) and the well-developed idea of dichotomy of soul and body.

Now, the medical interpretation of “*RB*” and its relation to health and illness is more clarified. It is a delicate steam-like material that spreads throughout the body, and is actually composed of four humors (Avicenna 2004d, 6). Certainly, Avicenna

has presented the most detailed ideas in this issue. In the *al-Advīah al-qalbīyyah*, he notes that “the left atrium of the heart is the main place of the “*RB*” and its formation” (1983a, 221).

How has the “*Rūḥ Bukhārī*” been formed and what are its functions? The combination of the four humors has two volatile and gross aspects. From the volatile aspect, the “*RB*” is formed, and from their gross aspect, the physical organs are shaped (Ibid). Heart is the main position of the “*RB*,” and it flows to other parts (Avicenna 1983a, 221). However, “*RB*” should not be considered as blood or nerve. These are not the same. It is not clear what Avicenna means, but it seems that “*RB*” is spread through the blood and nerves throughout the body. It is might be considered as something like electricity or energy, which are imperceptible and unrecognizable for sense.¹³

In every part of the body, “*RB*” matches the same member. In other words, each organ has its own “*RB*.” For example, in the brain it is as a vehicle for emotions and movements, and in the liver or gastrointestinal, it is responsible for providing the nutrition. According to *al-Advīah al-qalbīyyah* (The Medications of Heart), “*RB*” carries the soul’s faculties but in a lighter level. In fact, the faculties of the soul firstly penetrate the “*RB*” and secondly enter the body and its organs. He says:

“[The “*RB*”] is a special mood. Its quality also changes for adaptability to the organ’s needs in which it becomes a carrier of various faculties”. (Avicenna 1983b, 233; also see Avicenna 2004d, 15)

Consequently, by this logical systematization, he tries to show a reciprocal interaction between physics and metaphysics as well as psychology and medicine. In order to make these connections stronger, he tries to display how man, in one side, is completely natural and material and on the other side human being associated with immaterial facts. For linkage the material dimension of man with nature, Avicenna at first refers to the common characteristics of man with plants and animals.

He mentions briefly (2004c, 12) that humans share three characteristics of growth, nutrition, and reproduction with plants. Therefore, at this stage, the soul is called “vegetative soul,” which is a means of regulating the growth, nourishment, and reproduction of the body. The spirit that links this kind of relationship between body and soul is known as “vegetative spirit” (2004c, 12) or “natural spirit” (2004d, 8). On the other hand, sensation and movement are generally shared by human beings with other animals. Both humans and animals have sensation and movement, and there are these two features which separate them from plants. For this reason, the mediator of this connection between the body and soul also is named “animal spirit” (2004d, 8).¹⁴

¹³ In *Rag shināsi, yā, Risālāh dar nabḍ (angelology or the treatise on the pulse)*, p. 9, Avicenna says: “و علم رگ که علم نبض خوانند، علم حال روح است”.

¹⁴ Avicenna uses sometimes other names for these faculties. For more information about soul and its faculties, see Rahman (1981). *Avicenna’s psychology*. London: Oxford University Press (reprint edition), pp. 34 f; Fakhry (2004). *A history of Islamic philosophy*, 3rd ed. New York: Columbia University Press, pp. 143–145.

Moreover, what separates human being from other living beings and gives him a special identity is wisdom. Wisdom gives us the power of general inferences, complex mathematical calculations, behavioral control, and ability to speak. Therefore, it is called “rational soul” (*nafs nātiqah*) and the mediator of its relation to the body is called “human spirit” (Ibid).

According to this pattern, the communicational network of the soul and body is realized through three aspects: vegetative (or natural), animal, and human faculties (see Avicenna 2008, 507–515). When the balance of temperament in all these faculties exists, health is obtained, and the connection of the body and soul through “*RB*” is properly provided.¹⁵ However, if a disorder occurs, the relationship between soul and body is disrupted, and thus, diseases would develop.

If the abnormality in the organs or temperament is very intense, the connection between body and soul can be interrupted in that area. Avicenna notes to this point while bringing one proof for “*RB*.” He tries to prove “*RB*” both scientifically and philosophically: “When the nerves of an organ [for instance the fingers] are firmly closed, the sense and movement in this part are destroyed” (Avicenna 2004b, 130–131; Lukarī 2003, 46). This blockage proves something that exists, but it is invisible and intangible. It is exactly what the “*Rūḥ Bukhārī*” is called (Ibid).

If the disorder is very severe in the brain—in the case of an acute head injury for instance—the balance will collapse, and the connection between the body and soul will be disappeared. This is the same thing as “brain death” in medicine today. When one loses this connection, the rational life will be destroyed. For this reason, such a person is still alive, but he or she doesn’t have perception, memory, and speech anymore. Therefore, all that has come to the body through “*RB*” is disrupted and all senses and feelings are gone. Consequently, a human being in this circumstance is still alive, but in a vegetative status. This continues until the last bridge between the soul and body is broken and it marks the point of biological “death.” It means that “*RB*,” which is centralized in the heart, loses its mediating status. As a result, the body is completely corrupted while the soul is separating from the body. This interpretation is based on the philosophical principles of Avicenna and other Muslim philosophers, who consider human being as a two-dimensional being and who do not comprehend death as the end of life; especially, they believe in a life for the soul after death in order to justify eternal life (Jaffer 2003, 163–177).

In fact, death is cessation of interdependence between soul and body. In addition, it can be said that “*RB*” is as the proximate cause of body life, while soul is as the remote cause of it. Naturally, longevity and health of human being also depend entirely on the balance between the soul and body.

¹⁵ Accordingly, a planet could be healthy when the vegetative faculties are balanced, and animals also could be healthy, if their own faculties are in the equilibrium state. These two principles are taken from the words of Avicenna, although his discussion is only about human health.

Conclusion

As a Muslim philosopher and physician, Avicenna is influenced by both ancient Greek tradition and Islamic teachings. In his general categorization of knowledge, he considers medicine as a subdivision of philosophy and analyzes medicine through philosophical concepts. For Avicenna, health and illness are totally related to the condition of *Rūḥ Bukhārī* (*RB*). As a technical term that has been used by Avicenna and other Muslim scholars, “*RB*” plays the principle role to explain health and illness. Through this term, Avicenna describes both causes and cures for physical and psychological illness. “*RB*” as an invisible, fluid, and light substance is the mediator of the soul and body. Therefore, the human soul controls and manages the body through “*RB*.”

Avicenna believes that the soul and body compose the essence of all human beings, so every human being has two-dimensional entities. Soul as the immaterial aspect of human being needs the body for accomplishing its functions. This need is achieved through the “*RB*” which is scattered throughout the body like steam and wind. It regulates the relationship between body and soul as well as health and sickness. Diagnosis and treatment of most diseases are completely related to gaining a precise knowledge of “*RB*.”

Compliance with Ethical Standards

Conflict of interest The author declare that he has no conflict of interest.

Ethical Approval This article does not contain any studies with human participants or animal performed by the author.

References

- Avicenna. (1908). *Aqsām al-ḥikma in Tis' rasā'il fi al-ḥikmah wa-al-ṭabī'iyat (the branches of philosophy in nine books in philosophy and physics)* (pp. 104–120). Cairo: Matba'ah Hindīyah.
- Avicenna. (1950). *al-Qānūn fi al-ṭibb (canon)* (Vol. 1). Reprinted from Cairo: Būlāq. Beyrūt: Dār Ṣadīr.
- Avicenna. (1952). *Aḥwāl al-naḥs (on the soul)*. A. Fuād al-Ahwānī (Ed.). Paris: Dar-Biblioth.
- Avicenna. (1973). *Treatise on the Canon of Medicine of Avicenna* (English Translation of *al-Qānūn*). K. Gruner (Ed.). Reprinted from the edition of 1930 London. New York: AMS Press.
- Avicenna. (1983a). *al-Advīyah al-qalbīyah (heart medications)*. Aleppo: Institute of Arab Scientific Heritage.
- Avicenna. (1983b). *al-Shifa' (the healing)*. S. Zāyid (Ed.), Ṭabī'īyyāt (physics) (Vol. 2). Qum: Library of Ayatullah al-Mar'ashī.
- Avicenna. (2004a). *Dāneshnāmeḥ-ye 'Alā'ī (encyclopedia of 'Alā'ī)*. M. Mu'īn (Ed.), Ilāhīyyāt (philosophy). Hamadān: University of Bū'alī Sīnā.
- Avicenna. (2004b). *Dāneshnāmeḥ-ye 'Alā'ī (encyclopedia of 'Alā'ī)*. S. M. Mishkāt (Ed.), Ṭabī'īyyāt (physics). Hamadān: University of Bū'alī Sīnā.
- Avicenna. (2004c). *Nafs (on the Soul)*. M. 'Amīd (Ed.). Hamadān: University of Bū'alī Sīnā.
- Avicenna. (2004d). *Rag shināsi, yā, Risālāh dar nabḍ (angelology or the treatise on the pulse)*. S. M. Mishkāt (Ed.). Hamadān: University of Bū'alī Sīnā.
- Avicenna. (2008). *al-Ishārāt wa al-tanbīhāt (points and reminders)*. H. H. Āmulī (Ed.), (Vol. 2). Qum: Būstānī Kitāb.
- Fakhry, M. (2004). *A history of Islamic philosophy* (3rd ed.). New York: Colombia University Press.

- Floréal, S. (2009). *Avicenne XIe Siècle: Théoricien de la Médecine Et Philosophe: Approche Épistémologique* (Vol. 1). Damascus: Institut français du Proche-Orient.
- Goichon, A. M. (1986). Ibn Sīnā. In B. Lewis et al. (Eds.), *The Encyclopedia of Islam* (Vol. III, pp. 941–947), New ed. Leiden: Brill; London: Luzac.
- Groff, P. S., & Leaman, O. (2007). *Islamic philosophy A-Z*. Edinburgh: Edinburgh University Press Ltd.
- Gutas, D. (2003). Medical theory and scientific method in the age of Avicenna. In D. C. Reisman (Ed.), *Before and after Avicenna: Proceedings of the 1st conference of the Avicenna Study Group* (pp. 145–163). Leiden: Brill.
- Hall, R. (2004). Intellect, soul and body in Avicenna. In J. McGinnis & D. C. Reisman (Eds.), *Interpreting Avicenna: Science and Philosophy in Medieval Islam* (pp. 62–87). Leiden: Brill.
- Heath, P. (1992). *Allegory and philosophy in Avicenna*. Philadelphia: University of Pennsylvania Press.
- Ibn Juljul, A. D. (2005). *Ṭabaqāt al-ṭibbā' wa-al-hukamā'* (biographical dictionary of physicians and philosophers). In Fuād Seyyed (Ed.). Cairo: Dār al-Kutub wa al-Wathā'iq.
- Jaffer, T. (2003). Bodies, souls and resurrection in Avicenna's *al-Risālat al-Aḥḥawīyya fī amr al-Ma'ād*. In D. C. Reisman (Ed.), *Before and after Avicenna: Proceedings of the 1st conference of the Avicenna Study Group* (pp. 163–177). Leiden: Brill.
- Javadi, B., & Emami, S. A. (2015). Avicenna's contribution to mechanisms of cardiovascular drugs. *Iranian Journal of Basic Medical Sciences*, 18(8), 721–722. (Published online by The National Center for Biotechnology Information).
- Kaukua, J. (2015). *Self-awareness in Islamic philosophy: Avicenna and beyond*. Cambridge: Cambridge University Press.
- Lukarī, A. A. (2003). *Sharḥi qaṣṣīdi-ye asrār al-ḥikmah (the commentary of the poem "secrets of philosophy")*. In Ilāhi Rūhīdel et Reza Pourjavadi (Eds.). Tehran: Markazi Nashri Dānishgāhī.
- Mazda Pour, K. (2007). *Dāgh-e gule surkh (the sorrow of rose)*. Tehran: Asāṭir.
- Mosaddegh, M., et al. (2013). Avicenna's view on heart and emotions interaction. *International Journal of Cardiology*, 162(3), 256–257.
- Musawi Bujnūrdī, K. (Ed.). (1998). *The Great Islamic Encyclopedia* (Vol. 7). Tehran: The Centre for the Great Islamic Encyclopedia.
- Najmabadi, M. (1962). *Tārīkh-i ṭibb-i Īrān (history of medicine in Iran)* (Vol. 1). Tehran: Honar Bakhsh.
- Pormann, P. (2013). Avicenna on medical practice, epistemology, and the physiology of the inner senses. In P. Adamson (Ed.), *Interpreting Avicenna*. Cambridge: Cambridge University Press.
- Qustā ibn Lūqā (al-Qūnna'ī). (1953). *al-Farq bain al-rūḥi wa al-naḥs*. In H. Zīāulkān (Ed.), *Avicenna, rasā'il* (pp. 83–94). Istanbul: Maṭba'a Ibrāhīm Kharūz.
- Rahman, F. (1981). *Avicenna's psychology*. London: Oxford University Press.
- Rāzī, A. (2005). *al-Ṭibb al-rūḥānī (spiritual medicine)*. In P. Kraus (Ed.), *Rasā'il falsafīyya (collection of the philosophical books)* (pp. 1–97). Damascus: Bidāyat.
- Rāzī, F. (2013). *Ḥifẓ al-badan (body protection)*. In M. I. Dhākir (Ed.). Tehran: Mirāthi Maktūb.
- Ṣadr al-Dīn Shīrāzī (Mulla Ṣadrā), M. (1992). *Tafsīr al-Qur'ān*. In M. Khājawi (Ed.) (Vol. 6). Qum: Bīdār.
- Ṣadūq, M. I. B. (1989). *al-Tawḥīd (God's oneness)*. In S. H. Huseinī (Ed.). Qum: Jāmi'a Mudarrisīn.
- Saeedimehr, M. (2016). The reason of the pain from viewpoint of Avicenna. *Ḥikmatī Sīnawī*, 56, 5–16.
- Sarton, G. (1927). *Introduction to the history of science*. Baltimore: Williams & Wilkins.
- Sharafkandi, A. (translator). (1989). *Qānūn dar ṭibb* (Persian translation of *al-Qānūn fī al-ṭibb*). Avicenna. Tehran: Surūsh.
- Sīāsī, A. (1954). *Ravān shināsī-ye Ibn Sīna (Avicenna's psychology)*. Tehran: University of Tehran Press.
- Surūsh, A. (2007). *Āneye duvum* (Interpretation of the second book of *Mathnavī*). DVD. Tehran: Šīrāt.
- Ṭabarī, A. 1928. *Firdaws al-ḥikma fī al-ṭibb (paradise of wisdom in medicine)*. In M. Zabīr al-Sādīqī (Ed.). Berlin: Āftāb.
- Yusofpour, M., et al. (2015). Role of heart and its diseases in the etiology depression according to Avicenna's point of view and its comparison with views of classic medicine. *International J of Preventive Medicine*, 6, 49. (Published online by The National Center for Biotechnology Information).

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