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Medical Knowledge in the Latin Language in 18th-Century Korea

Abstract: Chosŏn (1329–1910), unlike China and Japan, where Jesuit missionaries came beginning in the 16th century with Western knowledge inscribed in Latin, was completely isolated from direct contact with Latin texts. This is because the government did not allow them to be admitted into its territory. Therefore, China constituted the only path for encountering Latin documents for Chosŏn, since the government regularly dispatched envoys and scholars to the Ming and Qing Dynasties for the purpose of cultural exchange from its beginning. In China, numerous Jesuit missionaries, including Matteo Ricci, translated various texts in Latin on Catholic doctrines, astronomy, mathematics, and medicine into Classical Chinese, or even wrote texts directly in Classical Chinese. These texts were transmitted into Chosŏn under the name of *Sŏhak* (西學), or “Western knowledge”, by a group of Neo-Confucian scholars of practical learning (實學) known as *Sirakcha* (實學者). The texts introduced into Chosŏn and diffused by *Sirak* scholars were as follows: *De Deo Verax Disputatio* (『天主實義』) of Matteo Ricci; *Zhuzhi Qunzheng* (『主制羣徵』) of Adam Schall; a partial translation into Classical Chinese of *De Providentia numinis* of Leonardo Lessio; *De Anima* (『靈言蠡勺』) of Francesco Sambiasi, transcribed by Xú Guāngqǐ (徐光启); *Taixi Shuifa* (『泰西水法』) of Sabatino de Ursis. Chosŏn scholars, especially those who wanted to overcome the limitations of Korean medicine, tried to trace and understand the medical knowledge contained in those texts, thereby eventually contributing to a sort of Western medical discourse in Chosŏn society. This passage of knowledge exemplifies the role of Latin and, by extension, Classical Chinese as cultural vectors, transmitting European ideas across significant linguistic barriers.

Keywords: Jesuit, Latin language, medical knowledge, Chosŏn, translation, *Sirhak* (實學), cultural exchange

1 Introduction

The Jesuit missionaries dispatched to China played a pivotal role in promoting cultural exchange between Europe and East Asia. One of the key concepts that aided them in this mission was the notion of “accommodation”, advocated by several missionaries, including Alessandro Valignano (cf. Lee 2013; Prieto 2017). This

approach paved the way for the “cultural translation” of Catholicism, which was carried out by Matteo Ricci and Michele Ruggieri, among other Jesuits. In addition to Christian doctrines, they introduced a variety of European ideas to the Chinese court, which allowed them to be assigned to important offices in the Imperial government. Simultaneously, the Jesuits in China regularly sent to Europe detailed information about China and East Asia, facilitating knowledge exchange between the two regions. Through their efforts, European texts in Latin were translated into Classical Chinese, which served as a common intellectual language in East Asia, much as Latin did in Early Modern Europe. Therefore, it is undeniable that Jesuit missionaries made a significant contribution to the cultural exchange between Europe and East Asia.

During the Chosŏn period (1392–1910),¹ the Korean peninsula was nearly disconnected from the cultural encounters taking place between Europe and its neighboring countries. This was due to the Chosŏn government’s hostile foreign policy toward Western countries and their representatives, which prevented European missionaries and merchants from establishing official relations with Korea. As a result, Chosŏn was almost completely isolated from direct contact with Latin texts and other cultural products originating from Europe, unlike China and Japan, which experienced a wide range of cultural exchanges with the Western world.

Before the later-19th century, when French missionaries from the Paris Foreign Mission Society began entering Korea, there were only two channels for contact with the European world, especially for intellectual purposes. The first involved gaining information from Westerners who had drifted to Chosŏn. For instance, Jan Jansz Weltevree (1595–?), a Dutch sailor who landed by accident on the Korean peninsula in 1627, adopted a Korean name (朴延, 朴燕) and settled there, eventually being appointed to various offices, including military ones, where he shared new information and technology on warfare in particular (cf. Yi 2001, 82). In 1653, a bookkeeper of the Dutch East India Company named Hendrik Hamel (1630–1692) drifted onto Cheju Island while sailing to Nagasaki, Japan. Unlike his fellow countryman, he did not wish to remain in Korea and managed to escape from Chosŏn in 1666. His manuscripts on adventures in the Korean peninsula, published in 1668, provided detailed and vivid, but mostly negative, information about Chosŏn to the Westerners of the 17th century (cf. Ledyard 1971).

The second channel for cultural and intellectual contact between Chosŏn and Europe was through the Jesuit missionaries in China. Chosŏn envoys, who were

¹ In this article, the primary system used to Romanize Korean-Language names and terms is the McCune-Reischauer system.

regularly dispatched to the Qing dynasty, had the opportunity to meet with these missionaries, who were based at the Chinese imperial court. A group of Korean diplomats, who were basically literati, were academically interested in the Western cultures and technologies introduced to Qing. As a result, some Chosŏn envoys brought back to the Korean peninsula several Latin texts translated into classical Chinese, including those on Catholicism, known in Korea as *sŏhak*, meaning “Western studies or learning”, as a field of study.

The representatives of this intellectual trend were the so-called *Sirhak* (實學) scholars, a group of intellectuals of the realist school who emphasized the practical sphere of Confucianism and led a series of social reform movements from the later-17th century to the earlier-19th century. The term *Sirak* is a combination of two Chinese characters, specifically *sil* (實), which denotes “practicality” or “actuality”, and *hak* (學), which refers to “studies” or “learning”. Therefore, *sirak* can be understood as “practical learning” or “practical studies”. In fact, the emergence of *sirak* was aimed at challenging the dogmatic adherence to Confucianism and the rigid emphasis on formalism and ritualism upheld by the neo-Confucians of Chosŏn. Proponents of *sirak* advocated a form of Confucianism that emphasized empirical observation and was focused on practical applications within society (cf. Setton 1989).

Therefore, it is not surprising that *Sirak* scholars showed a great interest in European medical knowledge. Upon encountering new medical concepts from Europe, they actively sought to comprehend and introduce them. Various texts brought by Catholic priests played a crucial role in this process of knowledge dissemination. However, due to the Chosŏn scholars’ inability to understand Latin, they relied heavily on texts that had been translated into classical Chinese by Jesuit missionaries and Chinese scholars. In other words, the only way for Chosŏn to have “intellectual contact” with Europe was through the Jesuit missionaries residing in Qing.

This study aims to examine the reception of Latin texts by 18th-century *Sirhak* scholars in Chosŏn, particularly focusing on their adaptation of Western medical knowledge within their intellectual framework. It will explore how key medical concepts from these texts were translated and assimilated by the scholars, reflecting on their impact on contemporary and subsequent Korean medical theories. Previous studies on the reception of Western medical knowledge among Korean scholars in the 18th century have focused primarily on analyzing references to Western medicine in their writings. Baker has pointed out that interest in European medical information in Chosŏn since the 18th century was closely linked to *sirak* scholars’ critiques of the contemporary medical system and their quest for medical progress through effective Western treatments, which in turn contributed to 19th-century theories of Korean medicine (Baker 1990). Some stud-

ies have examined the transmission of Western medical knowledge into the Korean peninsula beginning in the 17th century, focusing on the process of translation from Latin into Chinese (Yeo 2012; Kim 2020). The reception of Western medical knowledge by *Sirhak* scholars has also been discussed in terms of ideology. It has been noted that Western medical knowledge, including physiological theories, contributed to the development of philosophical arguments in the later Chosŏn Period, along with other new knowledge from the Qing dynasty (Ahn 2004; Kim 2008). Therefore, this study aims to explain the specific contexts in which Korean scholars adopted Western medical knowledge and the broader implications of this adoption.

2 *Sirhak* (實學) and *Sŏhak* (西學): Changes in the Intellectual Climate of the Later Chosŏn Dynasty

From the beginning of the 17th century, theological texts, particularly on Catholicism, alongside other scholarly works from various European disciplines, began to enter Chosŏn under the name of *sŏhak*, which literally means “Western studies”, as mentioned above. The channel through which Western learning was introduced was the Korean emissaries sent to the Qing dynasty; this was the exclusive connection Chosŏn had with the European world. The adaptive approach of the Jesuit missionaries in China paved the way for comparing and studying Eastern learning, culture, and religion with their Western counterparts, as part of their effort to introduce and establish their religion. Matteo Ricci’s (利瑪竇, 1552–1610) *De Deo Verax Disputatio* (『天主實義』, *The True Meaning of the Lord of Heaven*) exemplifies this approach of accommodation, as evidenced by his translation of the Christian God as the “Lord of Heaven” (天主) or the “Jade Emperor” (上帝). The strategies employed by the Jesuit missionaries played a significant role in shaping the perception of Catholicism among Korean scholars, who consequently treated texts discussing Catholic doctrine as scholarly works.

Matteo Ricci’s *De Deo Verax Disputatio*, after its publication in Beijing in 1603, quickly circulated throughout the Chinese language world, including the intellectual society of Chosŏn. For example, Yu Mongin (柳夢寅, 1559–1623) mentioned Ricci’s work in his *Ōu Yadam* (『於于野譚』, *Ōu’s Unofficial Histories*) in the early 17th century. The pioneering *sirak* scholar Yi Sukwang (李睟光, 1563–1629) partially included the contents of *De Deo Verax Disputatio* in his *Chibong Yusŏl* (『芝峰類說』, *Topical Discourses of Chibong*), published in 1614. It should be

noted that Korean scholars perceived Ricci's work as an introduction to a discipline from another world, comparable to Confucianism in terms of its intellectual and scientific nature (cf. Kim 2010).

The language that mediated cultural exchange between Korean scholars and Jesuit missionaries was classical Chinese. Despite the former's lack of knowledge in Latin, they could rely on classical Chinese as a diplomatic and academic language. The Jesuit missionaries, on the other hand, were proficient in Chinese, enabling them to engage in an exchange of knowledge. Chinese scholars and officials, especially those with knowledge of Latin, played a crucial role in assisting the missionaries in publishing their work in Chinese. Thus, the Qing court functioned as a hub for the exchange of knowledge between different cultures, allowing Chosŏn scholars to introduce Western disciplines, systems, and technologies, such as astronomy and the calendar, and Catholicism, under the banner of "Western studies". For reform-minded scholars and officials of Chosŏn, Western culture held great appeal. In search of new intellectual horizons and technologies, they traveled to the Qing Dynasty and actively brought back new knowledge to Chosŏn. Notable examples are the adoption of Matteo Ricci's *Kunyu Wanguo Quantu* (『坤輿萬國全圖』, *A Map of the Myriad Countries of the World*) and Adam Schall von Bell's (湯若望, 1592–1666) *Xin Li Xiao Huo* (『新曆曉式』, *Enlightening the Bewildered about the New Calendar*), with which Qing adopted the Western calendar (cf. Sim 2012).

An interesting case of the transmission of Western learning to Korea through the Qing dynasty comes from the friendship between Adam Schall von Bell (湯若望, 1592–1666), a Jesuit missionary who played a significant role in spreading Western knowledge in the Qing court, and Crown Prince Sohyŏn (昭顯世子, 1612–1645), who resided in the Qing court from 1637 to 1645. Adam Schall, having been in China since 1622, dedicated himself to missionary work and the introduction of Western culture there. Crown Prince Sohyŏn, the son of King Injo, the 16th king of Chosŏn, was held as a hostage following the Qing invasion of Korea in 1636. *Historica relatio de ortu et progressu fidei orthodoxae in regno Chinensi per missionarios Societatis Jesu ab anno 1581 usque ad annum 1669*, written by Adam Shall and Prospero Intorcetta (1626–1696), recounts an anecdote about Adam Schall's encounter with the Crown Prince Sohyŏn, which also includes a Latin translation of a handwritten letter from the prince to the missionary (cf. Ahn 2012, 166–169):

Per idem tempus Coreanorum Rex, quem Tartari antea in CEÃO TÛM novam curiam suam captivum abduxerant, promissa libertate [. . .]. Hic astronomum Europaeorum alioquoties humanissime invisit, et eadem humanitate hospitem in Palatio suo accepit. [. . .] Lubens obsecutus Pater adeo sibi Principem et homines istos devinxit. [. . .] Regi vero, quoniam literis delectari notum erat, ut Coreani plerumque omnes solent, exemplar librorum quorumvis, quod ad manum fuit, non tantum mathematicorum sed eorum etiam, qui de lege tractant, una

cum sphaera caelesti et imagine Salvatoris dono data sunt. Quae munera accidisce perquam grata sequens docebit epistola, quam e suo palatio Sinicis characteribus et propria manu ad P. Adamum Rex Coreanus exaravit.

“Heri,” inquit, “cum insperatum munus imaginis Salvatoris DEI, Sphaeram, libros astronomicos, aliasque Europaei orbis scientias complexos, et a te mihi praesentatos inspicerem, vix credes quantopere gavisus sim, et quantum ab hoc me debere tibi agnoscam. [. . .] Quando in regnum reversus fuero, eos non solum in regiam nostrum inferam, sed et praelo datos et excusos communicabo literarum studiosis. Habebunt unde posthac mirentur sortem suam, qua tamquam ex deserto in Palatium eruditionis translati sunt, scientique Coreani, se hoc Europaeis literis totum debere. [. . .]” (Schall 1672, 139–140, cit. from Ahn 2012, 166–167)

It seems that Crown Prince Sohyŏn, when he came back to Chosŏn in 1645, returned the holy statue and brought books among the gifts that he received from Adam Schall, as he wrote in the letter: «*Proinde judico imaginem venia tuta ad te remittendam, ne culpam neglectae reverentiae, quae eidem debetur, una cum illa asportem*» (Schall 1672, 141, cit. from Ahn 2012, 167). Given that the prince died only two months after his arrival, it is difficult to determine the specific texts on Western learning that he brought back and their impact on the intellectual circles of the time. However, considering that “Western studies” were known as early as in the 17th century, it is plausible that the texts brought by the prince gradually circulated among interested intellectuals (cf. Ahn 2017, 4–17; Kim 2020).

As seen in the case of Crown Prince Sohyŏn, the ongoing interaction between Chosŏn and Jesuit missionaries at the Qing court played a significant role in the continued introduction of Western learning into Chosŏn. By the 18th century, Chosŏn envoys to China also started showing interest in the Western medical knowledge brought by Jesuit missionaries. This interest was driven by concerns about the state of medicine in Chosŏn at the time (cf. Baker 1990, 136–138; Suh 2010). As a result, *sirak* scholars began analyzing Western texts imported from the Qing Dynasty to gather information on medicine, which eventually led to the development of a Western medical discourse among them (cf. Shin 2009, 182–184). The texts utilized in this process encompassed both doctrinal and practical books.

3 Translated Latin Texts on Western Medical Knowledge in 18th-Century Chosŏn

The earliest reference to Western medicine by a *sirak* scholar is *Sŏgugŭi* (「西國醫」), written by Yi Ik (李穡, 1681–1763). Yi Ik, a prominent *sirak* Confucian scholar, played a pivotal role in initiating the discourse on “Western studies” by writing a postscript to *De Deo Verax Disputatio* in the 1720s. This text aroused great interest

in Western learning among the intellectual society of Chosŏn. Other *sirak* scholars such as Yi Ŭihyŏn (李宜顯, 1669–1745), Shin Hudam (慎後聘, 1701–1762), An Chŏngbok (安鼎福, 1712–1791), Pak Chiwon (朴趾源, 1737–1805), and Pak Chega (朴齊家, 1737–1805) also briefly expressed their opinions on Western medicine. These discussions revolved mainly around knowledge of anatomy and physiology, along with some exploration of Western medicinal products and therapies (cf. Shin 2009, 182–185).

One of the key texts that *Sirhak* scholars relied on extensively in understanding and analyzing Western medical knowledge was *Zhuzhi Qunzheng* (『主制羣徵』, *Evidences of the Creator*), a catechism of the Catholic Church written by Adam Schall in 1692 in classical Chinese, based on *De providentia numinis et animi immortalitate* by Leonardo Lessio (1554–1623). The author's stated purpose for writing was to present evidence for the existence of God as the Creator, based on the observable order found in the natural world, including the human body. Therefore, as part of his argument, he emphasized the intricate complexity of the human body and its remarkable internal mechanisms, as perceived by Europeans (cf. Dudink 1998, 817–819). Despite being a doctrinal text, the detailed and novel anatomical and physiological explanations in the *Zhuzhi Qunzheng* not only provided Chosŏn scholars with their initial exposure to Western medical ideas but also established an important foundation for the reception of Western medicine in 18th-century Korea.

In addition to *Zhuzhi Qunzheng*, several Latin texts were translated into classical Chinese and served as important references in the construction of Western medical discourse in 18th-century Chosŏn. First, *Lingyan Lishao* (『靈言蠡酌』, *Short Treatise on Matters Pertaining to the Soul*) served as an additional source of Western medical knowledge for Chosŏn scholars. Published in 1642, this catechism of the Catholic Church was a collaborative work between the Jesuit missionary Francesco Sambiasi (畢方濟, 1582–1649) and the Chinese official Xú Guāngqǐ (徐光啓, 1562–1633). Sambiasi delivered oral discourses on the subject, while Xú Guāngqǐ diligently transcribed them, resulting in the creation of the text (cf. Meynard 2015). One of the practical books written or introduced by Catholic missionaries that garnered the interest of *sirak* scholars was *Taixi Shuifa* (『靈言蠡酌』, *Hydromethods of the Great West*). This manual was written by the Jesuit Sabatino de Ursis (熊三拔, 1575–1620) with the help of Xú Guāngqǐ to introduce European agricultural techniques, with a special focus on hydraulic pumps for agriculture (cf. Kink 2020).

Chosŏn scholars primarily focused their attention on practical aspects of Western medical knowledge, particularly concerning medicinal ingredients and novel treatments for various diseases. The earliest documentation of Western medicine can be traced back to the writings of Yi Ŭihyŏn. In his diary chronicling

his trip to Beijing, Yi provides a detailed description of the two types of medicinal products that were given to him by a Catholic missionary, including their appearance, instructions for use, and timing (cf. Baker 1990, 147). Yi Ik, in his article entitled *Joannes Ureman* (鄔若望, 1583–1621), where he discussed studies on Chinese herbal medicine by a westerner, expressed a favorable perspective on this research. In addition, he remarked that such research likely encompassed countless prescriptions and distinctive herbal remedies, providing significant benefits to people.²

Certain *sirak* scholars, driven by a strong desire to introduce the advanced culture and ideas of Qing China (北學派), showed a heightened sense of anticipation toward Western prescriptions and medical products. For example, Pak Chega, a member of the embassy to Qing in 1778, recognized the medical studies and treatment methods of Japan and Europe. He commended Japan for their meticulous screening of herbal medicine in foreign trade and regarded Western medical teachings as highly sophisticated and requiring skilled doctors. He also traced some information about Western medical remedies from the *Taixi Shuifa*. Despite his attempts, he was unable to obtain Western prescription records. Pak Chiwon, a renowned scholar and official of the time, documented his efforts to obtain Western prescriptions during his trip to China in 1780. In particular, he sought a Japanese translation of a Dutch medical text known for its effectiveness (『小兒經驗方』). In addition, he wanted to acquire a Western medical text translated into classical Chinese (『西洋收露方』) that contained insights into the process of drug distillation in Western medicine (cf. Shin 2014, 750–753, 765–766).

In brief, despite the strong interest of practical scholars in Western medicine and therapeutic techniques, lack of access to relevant texts prevented the widespread introduction of this knowledge into Chosŏn. However, they were engaged actively in discussions regarding the depiction of the human body and its physiology as presented and translated in the texts of Jesuit missionaries. The following chapter examines the reception of Western medical knowledge among 18th-century *sirak* scholars, with a particular focus on the fields of physiology and anatomy.

2 『星湖僊說』, 第十卷 人事門, 鄔若望: «鄔若望者西洋人天啓間至中國善醫究中國本草八千餘種惜未翻譯此必有奇方異材大益人生不能傳後而泯焉可異».

4 Western Anatomy and Physiology in Chosŏn Texts

When Korean scholars encountered Western medical theories in the 18th century, they quickly recognized the stark differences between these theories and their existing understanding of the human body, which was based on a combination of physiological concepts of oriental medicine and Neo-Confucian perspectives on the human body (cf. Baker 1990, 146–151). The descriptions of anatomy and physiology, especially in Adam Schall's *Zhuzhi Qunzheng*, attracted the attention of Korean scholars. They considered Adam Schall's work a valuable source of information, offering a fresh and alternative perspective that differed from the established teachings of traditional Korean and Chinese medicine.

One noteworthy aspect of the Chosŏn scholars' reception of Western medical knowledge is their selective focus on certain areas and their ignoring of others. A prime example of this is their lack of interest in or attention paid to information on bones and muscles, despite the abundance of Western medical knowledge on these subjects in the texts. For instance, Yi Ik, at the beginning of his discourse on medicine in Western countries, quoted Adam Schall's words, which were in fact a translation of Lessio's words:

Non fatis erat corpus humanum ossibus constare & musculis, sed calore opus erat ut posset vivere, & sanguine quo posset ali, & spiritu quo posset moveri ac sentire. (Lessio 1617, 68)

有骨有肉, 身形備矣, 然必須本熱爲生, 血爲養, 氣爲動覺, 缺一不可. (Tang 1627)

西洋醫人湯若望, 天路問至中國, 其主制群微云, 有骨有肉形備矣, 然必須本熱爲生, 血爲養, 氣爲食動覺, 缺一不可. (Yi 1760)

In his text, Adam Schall concludes the description of the human body's composition with these words, moving from anatomy to physiology. His focus on anatomy primarily centers on a detailed explanation of bones and muscles, including discussions of their functional aspects,³ with only minor variations in specific terminology (cf. Lessio 1617, 65–68). However, when examining Yi Ik's discourse on Western medical knowledge, it becomes apparent that he intentionally excludes or overlooks the in-depth exploration of bones and muscles. Instead, he briefly

3 『主制群微』, 五 以人身向微: «首骨自額連於腦, 其數八. 上額之骨, 十有二. 下則渾骨一焉. 齒三十有二. 齊三十有四. 胸之上, 有刀骨焉, 分爲三. 肋之骨二十有四, 起於齊, 上十四環至胸, 直接刀骨, 所以護存心肺也; 下十較短, 不合其前, 所以寬脾胃之居也, 指之骨, 大指二, 餘各三. 手與足各二十有奇. 諸骨安排, 各有本向, 所向異, 故其數與勢, 亦不得不異. 或縱入如釘, 或斜迎如鋸, 或合筍如櫝, 或環抱如攢, 種種不一, 總期體固, 動之順而已».

summarizes that bones and flesh are the fundamental elements constituting the human body.

The complete omission of the bone section can be attributed to the characteristics of Korean medicine and its perception of the human body. From this point of view, the form, or anatomy, and the mechanism, or physiology, of each part of the living organism were not treated and described separately. Even when bones were individualized, as seen in *Tongŭi Pogam* (『東醫寶鑑』, *A Precious Mirror of Eastern Medicine*), a Korean medical book published in 1613, they were understood primarily as repositories of bone marrow. This perception, deeply rooted in Oriental medicine, may explain the lack of interest among *sirak* scholars in delving into detailed discussions of specific bone groups, as seen in Yi Ik's text (cf. Yeo 2012, 257–258).

Regarding the muscles, Adam Schall relies heavily on the description in *De providentia numinis*. He faithfully translates Lessio's detailed information on the number, shape, and use of muscles. In his discussion, Schall emphasizes that muscles, along with bones, play a crucial role in shaping the human body (cf. Lessio 1617, 67).⁴ In this case, the author's choice of «肉» (“flesh”) as the translation for muscles is indeed noteworthy (cf. Yeo 2012), probably influenced by Lessio's statement at the beginning of his description of muscles: «*varias carnis particulas, quas musculos vocamus*» (Lessio 1617, 67). This choice reflects the fact that traditional Eastern medicine did not distinguish between muscles and other soft tissues, lumping them all under the term “flesh” (cf. Kuriyama 1999).

Therefore, it can be assumed that Yi Ik, who shared the same understanding of the human body, regarded muscle as a type of flesh and, despite his interest in anatomy (cf. Kim 2008, 328–342), did not pay much attention to the movement of the body associated with bones and muscles. Considering that Yi Ik quotes Adam Schall's detailed description of the major organs of the human body and their functional mechanisms, it can be inferred that Yi Ik was more interested in the new explanations of the body's movement and reflexes rather than in its composition. In essence, Yi Ik may have considered the discourse on the anatomy of *Zhuzhi Qunzheng* to be an overly simplistic exposition and may for that reason have decided not to include it in his own writing.

Yi Ik begins his physiological discourse of the Western medical tradition with a description of the three major organs, namely the heart, the liver, and the brain. In terms of physiology, what interested Chosŏn scholars most was Western medicine's answer to the question of which organs governed the human body.

4 『主制群微』, 五 以人身向微: «論肉, 其數六百界有奇, 其形長短寬狹厚薄圓扁角渾異, 其勢各上下相并, 或順或斜, 或橫異, 此皆各有本用. 而以順本, 身多異之動».

While the East Asian medical tradition regarded the heart as the central organ of the human body (cf. Baker 1990, 149), Adam Schall suggested the brain as the center of thought and sensation. Yi Ik seemed both amazed and perplexed by the intricate description of physiology. He recognized that Adam Schall's explanations provided far more detail than what Chinese doctors could offer, making it impossible to ignore his insights. However, Yi Ik also acknowledged that the language and framework used by Europeans was unfamiliar and somewhat confusing. He admitted that there were certain aspects that he did not fully understand.⁵

Despite the inherent challenges and difficulties in understanding, Yi Ik seeks to have harmonized his existing knowledge with the principles of Western medicine. In particular, he recognizes and embraces the importance of the brain as the critical organ responsible for coordinating bodily movements and sensory functions.

To use the word perception in talking about the brain is not the way we Confucians talk about it. Flesh is moved by muscles. Those muscles are just dense cluster of tissue. When some external object touches the flesh, the flesh immediately moves. If a muscle is not making it move, what is? But those muscles have no self-awareness. The brain receives the sensory impressions and, without stopping for a moment to think about what it is doing, immediately orders the muscles to respond. That is the way the brain operates. But it is the heart, not the brain, which knows that there has been sensory stimulation. So if we say that sensation is based in the brain, we had better add that knowledge is centered in the heart (cit. from Baker 1990, 150).⁶

However, as seen above, Yi Ik did not fully accept Adam Shall's perspective that the brain controls all body movements. While he acknowledged the role of the brain in controlling body movements through the "nerves" (「筋」), he limited the concept of "perception" (「覺」)-driven movements to reflex actions only. The basis of this understanding can be attributed to Adam Schall's choice of «心» ("heart", "mind") as the translation for both *cor* ("heart") and *anima* ("soul"). Consequently, Yi Ik regarded the heart not only as a physical organ but also as the center of mental activity. This interpretation led him to conclude that the heart, rather than the brain, controls both the physical and mental activities that arise from human thought (cf. Kim 2020, 388–390). In this way, Yi Ik sought to reconcile the Western physiological concepts presented in *Zhuzhi Qunzheng* with the principles of Korean medicine and thought.

5 『星湖僊說類選』, 冊5, 西國醫: «全當壬辰倭亂, 行道間三屠死屍, 然後其術亦精通」.

6 『星湖僊說類選』, 冊5, 西國醫: «但添一覺字, 與儒家說不同. 然肉運於筋, 筋爲肉繫. 外物觸肉. 肉便場動者, 非筋而何. 筋非自覺. 有腦故物觸之時, 不待思量, 便即場動者. 腦之爲也, 知其有物觸而然者, 心也. 然則覺在腦而知在心, 其理亦宜矣」.

In contrast to his teacher Yi Ik, Shin Hudam expressed strong criticisms of Western medicine. His focus was primarily on the theory that the brain is responsible for consciousness and memory, a concept derived from Sambiasi's *Lingyan lishao*. While Shin Hudam agreed with his teacher that the brain was the central organ for perception, he disagreed on the specific location of memory-related psychological activities, arguing that it resided in the heart rather than the "brain ventricle" (「腦室」). He further contended that the concept of the brain ventricle had already been proposed by Chinese Daoist thinkers (cf. Shin 2009, 186–187).

Regarding Western medical knowledge, especially in the fields of anatomy and physiology, which came to Korea in the 18th century, it is important to note its roots in the Galenic tradition practiced in Medieval Europe. The fact that Adam Schall relied heavily on the writings of Galen (130–201), rather than the novel contributions of the European medicine of his time, is clearly stated in the reference text of Zhuzhi Qunzheng, Lessio's *De providentia numinis*. Adam Schall described Galen as «a renowned Western doctor»:

Scribit Galenus esse in corpore humano ossa supra ducenta; & singula ossa habere scopos supra 40. Itaque ut sola ossa corporis humani apte formentur plusquam octies mille scopos esse spectandos (Lessio 1617, 67).

西有名醫，察各骨之向，約有四十，各肉約有十，詳考人身各肢 各分之間，可得數萬 (Tang 1629).

In other words, in Chosŏn, the Western texts that presented arguments for the greatness of God based on Medieval medical knowledge that deviated from the prevailing trends in Europe at the time were considered new and innovative (cf. Yeo 2012, 264–265; Kim 2020, 382–383). Chosŏn *Sirhak* scholars were able to take a brief glimpse of a Western theory of anatomy and physiology thanks to the Jesuit texts brought in from the Qing dynasty. Despite being considered outdated in Europe at that time, the medical information in these religious texts differed markedly from established ideas in Chosŏn, thereby fostering a new kind of medical discourse.

5 Conclusion

The adoption of Western studies by Chosŏn scholars revealed their limited knowledge of the Latin language, which led to their reliance on translated texts. Unlike China and Japan, which had been in direct contact with Jesuit missionaries and had access to Western knowledge written in Latin, Chosŏn was isolated from such exposure. In an effort to broaden their understanding, a group of practical scholars in 18th-century Chosŏn aimed to overcome the limitations of Korean

medicine by introducing “new” medical knowledge from Europe, brought by Jesuit missionaries, thereby establishing a kind of discourse on Western medicine. This included the influence of Western physiology, which emphasized the brain and had an impact on the Chosŏn view of the human body that emphasized the heart. The circulation of knowledge in this manner highlights the characteristic of Latin as a cultural vector that facilitated the transmission of specific concepts representing European ideas, despite the linguistic barrier that limited direct engagement with the practical aspects of Western medicine sought by Korean scholars of the time.

The lack of linguistic competence in Latin posed challenges for the practical application of medical knowledge by *Sirhak* scholars. They had to rely on classical Chinese translations of medical texts instead of accessing the “original” Latin texts. As a result, the Western medical knowledge contained in Jesuit texts had limited influence on Korean medicine in the 18th century. This was mainly due to the fact that these texts were not comprehensive medical books and the Western medicine they introduced was merely a brief description of basic anatomy and physiology, which was also outdated. In the practice-oriented medical climate of the late Chosŏn dynasty, the Western medical knowledge circulating in Chosŏn, which lacked therapeutic approaches and focused solely on anatomical and physiological descriptions of the human body, seems to have had difficulty exerting practical influence.

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