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# Acupuncture for Sleep Disorders: General Theories and a Specific

### Analysis of Insomnia

Abstract: This paper discusses the formation of general theories and treatments of sleep disorders, focusing on insomnia as a model used to analyze and highlight the profound changes in diagnostic and treatment (acupuncture and moxibustion) approaches, from the classic *Huangdi Neijing* 《黄帝內經》 to modern treatments in China.

1. Introduction: Tian Ren He Yi (天人合一), Qu Xiang Bilei (取象

# 比類) and the Construction of the Theories of the "Circadian

# Rhythms" in the Huangdi Neijing《黃帝内經》

In Ancient China, the construction of the theories and concepts that describe the rhythms of activity and rest of the Human Being on different times of the day and night followed a central idea that permeates the whole discourse and practice of Classical Chinese Medicine: *Tian Ren He Yi* (天人合一) or Universe and Man Uniting and Resembling Each Other. Man is a small universe, and universe is a big man and sinograms referring to human body's parts, behaviors and characteristics also denote things in nature, i.e. one relates to man, while the other relates to nature.<sup>1</sup>

Along with this general principle and strongly influenced by the Classic of Changes (*Yijing* 易經), a unique methodology called *Qu Xiang Bi Lei* (取象比類) emerged in the construction of the concepts used to describe and present different aspects of reality.<sup>2</sup> The imaging thinking is a classical thinking way of the Chinese culture, and whose process,

<sup>&</sup>lt;sup>1</sup> Lan, F. *Culture, Philosophy, and Chinese Medicine: Viennese Lectures (Culture and Knowledge)*. Peter Lang Publishing Group: Frankfurt a.M. et al., 2012.

<sup>&</sup>lt;sup>2</sup> Ibid pp.279 and 283

methods, and rules makeup *Qu Xiang Bi Lei* 取象比類 or Taking Image and Analogizing, the framework of the classical Chinese culture and science. The Book of Changes classifies *Qu Xiang Bi Lei* into four Steps: ①Observing object or phenomenon (*guan wu* 觀物): directly observe an object or a phenomenon; ②Taking image (*qu xiang* 取象): summarize and refine the image of the object or phenomenon after repeatedly observing and feeling it; ③Comparing and analogizing (*bi lei* 比類): compare the things which need to know with the "image (*xiang* 象)" just taken; ④Understanding the Way or Rule (*ti dao* 體道): find the rules through the above comparing and analogizing. *Qu Xiang Bi Lei* results in the formation of metaphors, and such metaphors show the process of *Qu Xiang Bi Lei* and the relationship of the involved things or objects or phenomena or images. Therefore, *Qu Xiang Bi Lei* is an immanent methodology which is given by the activity.<sup>3</sup>

The concept of *Tian Ren He Yi* (天人合一) and the methodology *Qu Xiang Bi Lei* are the basis for the construction of the medical discourses of *Huangdi Neijing*《黄帝內經》 and within these discourses we find the conception of rhythms of activity and rest of the human body that, although nonequivalent to the western notion, we will call "circadian rhythms theory".

This theory basically transposes to the human body and its functions the phenomena that occur in nature to describe how the influences of *Yin* (陰) and *Yang* (陽) manifests and alternate during the day and night. This transposition or mirroring is accomplished through the process of Imaging – Analogizing – Metaphorizing.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> Ibid p.81

<sup>&</sup>lt;sup>4</sup> Ibid p.283

For the ancient Chinese, the most basic level of understanding of the rhythms of life and the manifestations of the *Yin* (陰) and *Yang* (陽) phases was represented by the alternations between day and night and the progression of the four seasons during the year. *Huangdi Neijing*'s discourse uses several concepts and metaphors from other areas of knowledge of ancient China to discuss and elaborate theories based on these alternations between *Yin* (陰) and *Yang* (陽).

Various concepts that could be viewed as metaphors of the duality of *Yin* (陰) and *Yang* (陽) manifested within the human body are introduced and discussed in the various passages explaining sleep disorders in the *Huangdi Neijing*《黄帝內經》. This shows us the remarkable pervasiveness of theory of *Yin* (陰) and *Yang* (陽) in the medical discourses of early China.<sup>5</sup>

The clearest concepts that could be considered as metaphors for the general concepts of *Yin* (陰) and *Yang* (陽) are the dualities *Qi* and *Xue* (氣血); *Ying Qi* (營氣) *and Wei Qi* (衛氣); *Hun* (魂) and *Po* (魄) and *Yin qiao mai* (陰曉脈) and *Yang qiao mai* (陽曉脈).

Harmonious relations between these aspects are essential for the maintenance of health in the human body and for the prevention of the onset of diseases according to the ideas of the *Huangdi Neijing* 《黄帝內經》<sup>6</sup>.

<sup>&</sup>lt;sup>5</sup> We may paraphrase Confucius (Analects 4. 15) and state that "there is one thread that runs through all Ancient Chinese Medical Doctrines: *Yin* and Yang."

<sup>&</sup>lt;sup>6</sup> Medeiros, E. "Harmony, Health and Lifestyle Diseases in Classical Chinese Medicine". In: Wallner, F/Lan, F. (eds): *Lifestyle and Health libri nigri Band 58*. Verlag Traugott Bautz: Nordhausen. 2017, pp.151-169. and also see Brindley, E. (2012). Music, cosmology, and the politics of harmony in early China. Albany: SUNY Press, pp.423–435.

Thus, *Huangdi Neijing*《黄帝內經》 shows us that any sleep disorder is, fundamentally, a manifestation of the loss of coordination between *Yin* (陰) and *Yang* (陽). This loss of harmony makes the body susceptible to evil influences (*xie* 邪) that will cause a myriad of signs and symptoms once installed inside the human body<sup>7</sup>, depending on their intrinsic nature.<sup>8</sup>

This lack of coordination usually has a primary "cause" or striking feature<sup>9</sup>, and so these cases then fit into the modern definition of **secondary insomnia** which means that restlessness is a symptom or side effect caused by some other condition.

In the course of time, other interpretations and theories about circadian rhythms have emerged, bringing new visions and contributions to the understanding of this process, and Hamid Montakab summarizes this historical evolution:

Historically, the earliest Chinese discussions about sleep related the sleeping process to the movements of *Wei Qi* (defensive energy), orchestrated by the extraordinary vessels, the *Yin* and *Yang qiao mai* (motility vessels). During the Tang dynasty (7th–8th century CE), Chinese physiology became primarily humoral, that is, pathologies were seen through the concept of the five humors, or substances. Thus, sleep was associated primarily with *Shen* (spirit) and its relation to *Xue* (blood). It was not until the Song dynasty (10th–13th century CE) that the *zang fu* organ system was adopted as the basis of Chinese medical physiology. The *zang fu* and their disharmonies today constitute the foundation of modern Traditional Chinese Medicine (TCM).<sup>10</sup>

<sup>&</sup>lt;sup>7</sup> Su Wen Chapter 69《氣交變大論》"When the Qi subdues one another, this is harmony. If there is no mutual subduing, this is a disease." ("氣相勝者和, 不相勝者病, ....")

 <sup>&</sup>lt;sup>8</sup> Su Wen Chapter 27《離合真邪》, Ling Shu Chapters 4《邪氣藏府病形》, 20《五邪》, 43《淫邪發夢》, 71《邪 客》e 75《刺節真邪》.

<sup>&</sup>lt;sup>9</sup> Vexation 心煩, Cough 咳嗽, asthma 喘, hectic fever and vexation 骨蒸心煩, etc...

<sup>&</sup>lt;sup>10</sup> Montakab, H. and Montakab-Pont, S. (2012). Acupuncture for insomnia. Stuttgart: Thieme, p.13.

Our study is focused on the earliest discussions and the theories about the sleeping process in *Huangdi Neijing*《黃帝內經》. These theories are based on elaborations on the circulation and harmony between of *Yin* (陰) and *Yang* (陽) inside the human body represented by two forms of *Qi* defined as the *Ying Qi* (營氣) or Nutritive Qi, or literally the Camp Qi, described in details in *Ling Shu* Chapter 16《營氣》 which is clear and travels within the channels; and another form of Qi, the *Wei Qi* (衛氣) or Defensive, or literally the Guard Qi, explained in *Ling Shu* Chapter 76《衛氣行》 and described as turbid, aggressive and that travels outside the main channels providing functions such as the movement of the sinews and bodily defenses *Qi* in the human body. *Ling Shu* Chapter 18《營衛生會》 discuss both *Ying Qi* (營氣) and *Wei Qi* (衛氣), providing further details related to their generation and meeting.<sup>11</sup>

In addition to these chapters mentioned above, we also can find discussions and correlations on aspects of *Yin* (陰) and *Yang* (陽) during the day and night in several sections from other chapters, providing further details of the interrelationship between *Ying Qi* (營氣) and *Wei Qi* (衛氣). *Su Wen* Chapter 4 《金匱真言論》<sup>12</sup>, *Ling Shu* 

<sup>&</sup>lt;sup>11</sup> Woodley, S. (2019). *Zzzzzz ... Circadian Clocks in the Classics*. [online] Steve Woodley. Available at: https://stevewoodley. wordpress. com/2017/10/05/zzzzz-circadian-clocks-in-the-classics/.

<sup>&</sup>lt;sup>12</sup> Su Wen Chapter 4 《金匱真言論》: From noon to dusk, this is the Yang of heaven; it is the Yin in the yang. from early evening to the crowing of the cocks, this is the Yin of heaven; it is the Yin in the yin. from the crowing of the cocks to dawn, this is the Yin of heaven; it is the Yang in the yin. The fact is, man, too, corresponds to this. 「平旦至日中,天之陽,陽中之陽也;曰中 至黄昏,天之陽,陽中之陰也;合夜至雞 鳴,天之陰,陰中之陰也;雞鳴至平旦,天之陰,陰中之陽也。故人亦應之。」「平旦 至日中,天 之陽,陽中之陽也;日中至黄昏,天之陰,陰中之陰也;雞鳴至平旦,天之陰,陽中之陽也;合夜至雞鳴,天之陰,陰中之陰也;雞鳴至平旦,天之陰,陰中之陽也。故人亦應之。"

Chapter 52《衛氣》<sup>13</sup> and *Ling Shu* Chapter 28《口問》<sup>14</sup> describe the normal rhythms days and nights and the reasons why healthy people are active during the day and sleep restfully at night. All living beings follow the changes and the transformations of *Yin* (陰) and *Yang* (陽), including human beings.

In this sense, the *Ling Shu* Chapter 21《寒熱病》<sup>15</sup> describes how an abundance of *Yin* (陰) and *Yang* (陽) manifests conditions of drowsiness or restlessness. The movements of *Wei Qi* (衛氣) and the sleeping process have a close relationship. *Ling Shu* Chapter 76 《衛氣行》<sup>16</sup> describes the flow of the *Wei Qi* (衛) in the *Zang Fu* (臟腑) and *Ling Shu* Chapter 71 《邪客》<sup>17</sup> describes the nature and characteristics of the (incessant)

<sup>13</sup> *Ling Shu* Chapter 52 《衛氣》: The [*Qi* move through] the *Yin* and the *Yang* [conduits] alternately, they penetrate the interior and the exterior alternately. Like in a ring without beginning and end. "陰陽相隨, 外內 相貫, 如環之無端"

<sup>14</sup> *Ling Shu* Chapter 28《靈樞·口問》When the *Yang Qi* are exhausted, while the *Yin Qi* abounds, vision is dimmed. When the *Yin Qi* are exhausted, while the *Yang Qi* abounds, one falls asleep. 「陽氣盡, 陰氣盛, 則 目瞑;陰氣盡而陽氣盛, 則寤矣. 」

<sup>15</sup> *Ling Shu* Chapter 21《靈樞 - 寒熱病》If the *Yang Qi* abound, the eyes are wide open in angry excitement. If the *Yin Qi* abounds, the eyes are closed as if dozing. 「陽氣盛則瞋目, 陰氣盛則瞑目.」

<sup>16</sup> Ling Shu Chapter 76 《靈樞 衛氣行》: At dawn when the Yin [qi] are exhausted, the Yang Qi appears in the eyes. When the eyes widen, then the Qi ascends into the head.... From the kidneys they pour into the heart, from the heart they pour into the lung. From the lung they pour into the liver, from the liver they pour into the spleen. From the spleen they pour back into the kidneys and complete their circulation. 「平旦陰盡, 陽氣出於 目、目張, 則氣上行于頭.... 腎注幹心, 心注于肺, 肺注于肝, 肝注于脾, 脾 複注于腎為周。」
<sup>17</sup> Ling Shu Chapter 71 《靈樞 邪客》 The guard Qi appear as the wild and fast ones among the aggressive qi. At first, they move into the region of the partings of the flesh and the skin in the four limbs. They never rest. During the day they move in the Yang realm. During the night they move in the Yin realm. They always

circulation of the Wei Qi (衛氣), which flows outside the body during the day and moves into the body and circulates through the Zang Fu (臟腑) organs at night, in order to protect the body from the attack of evil influences (Xie 邪) during the sleep.

*Ling Shu* Chapter 80《大惑論》<sup>18</sup> explains how faults or blockages in the circulation of the *Wei Qi* (衛) produce a state of excess in the extraordinary channel *Yang qiao mai* (陽曉脈). The *Yang Qi* (*Wei Qi* 衛) prevented from penetrating the *Yin* remains externalized and at a level of activity that prevents the onset of sleep and thus causes insomnia.

*Ling Shu* Chapter 18《營衛生會》<sup>19</sup> details the harmonious circulation between *Ying Qi* (營氣) and *Wei Qi* (衛氣) in healthy people, and also examines the sleep question and repeat the statement of the *Ling Shu* Chapter 28 《口問》 saying that healthy people

originate from the foot minor *Yin* [conduit] and they move to the five long-term depots and six short-term repositories. 「衛氣.... 畫日行于陽, 夜行于陰, 常從足少陰之分間, 行于五藏六府, 今 厥氣 客于五藏六府...」

<sup>18</sup> Ling Shu Chapter 80 《靈樞 大惑論》The guard Qi are unable to enter the Yin realms; they permanently remain in the Yang realm. When they remain in the Yang realm, then the Yang realm is filled with qi. When the Yang realm is filled with qi, then [the qi] in the Yang walker [conduit] abound. Because they are unable to enter the Yin realm, the Qi in the Yin realm are depleted. Hence the eyes cannot be closed. "衛氣者, 晝曰常行于陽

,夜行于陰,故陽氣盡則臥,...".

<sup>19</sup> *Ling Shu* Chapter 18《靈樞·營衛生會》In strong [persons] the *Qi* and the blood abound. Their muscles and their flesh are smooth and the paths of their *Qi* are passable. The movement of their camp and guard [qi] never loses its regularity. Hence they are of a clear [mind] during the daytime, and they close their eyes at night. "壯者 之氣血盛, 其肌肉滑, 氣道通, 營衛之行不失其 常, 故晝精而夜瞑"

"are of a clear [mind] during the daytime, and they close their eyes at night.". The same chapter also shows how the opposite occurs in unhealthy or debilitated people.<sup>20</sup>

The extraordinary channels *Yin qiao mai* (陰蹺脈) and *Yang qiao mai* (陽蹺脈) also play a pivotal role in discussions on sleepiness, insomnia, and drowsiness. Important discussions on these issues can be found in *Ling Shu* Chapter 17《脈度》<sup>21</sup> and *Ling Shu* Chapter 21《寒熱病》.<sup>22</sup>

# 2. The Case of Insomnia (Shi mian 失眠)

There are many sleep disorders described in the Chinese medical literature that can be treated by Acupuncture and Moxibustion but among all sleep disorders, it is insomnia that provides us the best model to understand and highlight the sharp contrasts and transformations that have occurred on the treatment strategies through the times.

3. Beyond Shi Mian 失眠 - Defining Insomnia in the Works of

## Ancient China

陽相交, 陽入陰, 陰出陽, 交 于目銳眥, 陽氣盛則瞋目, 陰氣盛則瞑目。 」

<sup>&</sup>lt;sup>20</sup> Ling Shu Chapter 28《靈樞·口問》The camp Qi are weak and diminished, and the guard Qi attacks their own interior. Hence they are not of a clear [mind] during the daytime, and they do not close their eyes at night "營衛之行不失其常,故書精而夜瞑"

<sup>&</sup>lt;sup>21</sup> Ling Shu Chapter 17《靈樞·脈度》The walker vessel...links up with the inner corner of the eye, link up with the major Yang and Yang walker [vessels] and extends further upward. When the Qi circulates through all [vessels] alike, they cause moistening. When the Qi of the eyes fails to circulate, then the eyes cannot close. " 蹻脈... 上內踝之上, 直上循陰股, 入陰, 上循胸 裡, 入缺盆, 上出人迎之前, 入頄, 屬目內眥, 合于太陽, 陽蹻而上行, 氣並相還, 則為濡, 目氣不榮, 則目不合." <sup>22</sup> Ling Shu Chapter 21《靈樞·寒熱病》「足太陽有通項入于腦者......入腦乃別陰蹻、陽蹻, 陰

Shi mian 失眠 is a term rarely used in the works of ancient China. Although it appears in important ancient works such as the *Waitaimiyao*《外台秘要》 (752 C.E.) by *Wang Tao* ( $\Xi \Phi$ )<sup>23</sup> and *Pujifang*《普济方》 (1406 C.E.) by *Zhuzi* (朱梓)<sup>24</sup> other different terms appear much more frequently to describe situations of insomnia in the vast majority of works of ancient China. Some of the most frequently used are *bumei* (不寐), *mubuming* (目不瞑), *budemian* (不得眠), *budewo* (不得臥).

Further works adopted distinct terminologies to describe different conditions of insomnia. The most frequent terms in these works are described in the table below.

Name of Work	Words meaning Insomnia
Huangdi Neijing	目不瞑 Mùbùmíng、不得眠 bùdé mián、
《黃帝內經》	不得臥 bùdéwò;不得安臥 Bùdé ān wò, etc
Nanjing	不寐 bùmèi
《难经》	
Zhong Zangjing	无眠 wúmián
《中藏经》	
Waitai Miyao	不眠 bùmián
《外台秘要》	
Shenji Zhonglu	少睡 shǎo shuì
《聖濟總錄》	
Taiping HuiMin Heji Jufang	少寐 shǎo mèi
《太平惠民和劑局方》	
Za Bing Guang Yao	不睡 Bùshuì
《雜病廣要》	

 TABLE 1- MOST FREQUENTLY USED WORDS MEANING INSOMNIA IN DIFFERENT

 WORKS OF ANCIENT CHINA

The Huangdi Neijing《黄帝内經》 does not devote any chapter to specifically

discuss insomnia. Discussions on this topic are fragmented into several chapters, each one

<sup>&</sup>lt;sup>23</sup> Waitaimiyao《外台秘要》「于項強敕色,次於失眠發熱,中于煩躁思水,終於生瘡下痢,大齊于此耳

<sup>。</sup> 忌海藻、菘菜.

<sup>&</sup>lt;sup>24</sup> Pujifang《普濟方》「診時行。始于項強赤色。次於失眠發熱。中于煩燥見水。 終於生瘡下利。 大率如此耳 / 凡 口瘡不可失眠。 失眠則甚。 一方無甘草. 」

of them dealing with different situations. More specific discussions on insomnia begin to appear in works from the Yuan Dynasty (1271-1368 C.E.). As for example, the *Yishu* 《 醫述》, a work published in 1314 CE devotes a specific topic to insomnia<sup>25</sup> but does not elaborate any theory and instead only gather explanations contained in *Su Wen* Chapter 34 《逆調論》 and *Ling Shu* Chapter 18《營衛生會》 to explain the fundamental theories about insomnia.

Later, *Jingyue Quanshu*《景岳全書》 (1624 CE) by *Zhang Jinbie* (張介賓) dedicates a specific chapter to discuss insomnia with more detailed elaborations<sup>26</sup>. In both cases, the word used is not *Shi Mian* (失眠) but *Bu Mei* (不寐).

<sup>&</sup>lt;sup>25</sup> 《醫述•卷十•雜證匯參 不寐程杏軒》

<sup>&</sup>lt;sup>26</sup>《景岳全書·不寐》「不寐證雖病有不一,然惟知邪正二字,則盡之矣。蓋寐本乎陰,神其主也, 神安則寐,神不安則不寐,其所以不安者,一由邪氣之擾,一由營氣之不足耳。有邪者多實證,無邪 者皆虛證.」

TABLE 2- OTHER WORKS WITH CHAPTERS OR DISCUSSIONS ABOUT INSOMNIA Using the

Term Bu Mei [不寐]

Bu Mei [不寐] as a discussion topic			
Ming Dynasty			
《古今醫鑑》: [卷之八] 不寐			
《秘傳證治要訣及類方》: [卷之九•虛損門]不寐			
《壽世保元》: [卷五]不寐			
《保嬰撮要》: [卷十]不寐			
《景岳全書》: [卷之十八理集 • 雜證謨不寐] 論證 (共三條)			
Qing Dynasty			
《張聿青醫案》: [卷十四] 不寐			
《醫學妙諦》: [卷下雜症] 癲狂怔忡不寐健妄等章			
《類證治裁》: [卷之四] 不寐論治			
《血證論》: [卷六] 臥寐			
《古今醫案按》: [卷六] 不寐			
《臨證指南醫案》: [卷六] 不寐			
《辨證錄》:[卷之四]不寐門(五則)			
《續名醫類案》: [卷二十一] 不眠			
《醫學衷中參西錄》: [五醫案(十二)不寐病門]. 不寐兼驚悸 and 心虛不寐			
《顧松園醫鏡》: [卷十二·書集]不寐			
Bu Mei [不寐] not as a topic but linked to other discussions.			
Yuan Dynasty			
《醫述》: [卷十三·女科原旨] 產後			
Qing Dynasty 《業株芭告殿安》, 美田			
《叢桂草堂醫案》:卷四			
《本草新編》:[卷之四(徵集)]酸棗仁			
《吳鞠通醫案》:[卷四]痰飲			
《花韻樓醫案》:正文			
《續名醫類案》:[卷十]內傷			
《王氏醫案繹注》:卷四			
《叢桂草堂醫案》:卷二			

《類證治裁》:[卷之一溫症論治]溫症脈案

There is no record of the year of publication 《丁甘仁醫案》朝代: 膏方 《辨症玉函》: [卷之三(利)上症下症辨] 心驚

# 4. The Bingyin 病因 ("Causes") and the Bingji 病機

("Pathomechanisms") of Insomnia on the Huangdi Neijing《黃帝内

經》 and other Ancient Chinese Medical Books.

The *Huangdi Neijing*《黃帝內經》 discusses conditions that cause insomnia in several of its chapters and, as mentioned above, the explanations are fundamentally focused on disharmonies in the circulation between *Yin* (陰) and *Yang* (陽), as stated in *Ling Shu* Chapter 21《寒熱病》. Other important approaches include discussions related to *Qi* and *Xue* (氣血), found in *Ling Shu* chapters 17《脈度》<sup>27</sup> and 18 《營衛生會》<sup>28</sup>. *Ling Shu* 

<sup>&</sup>lt;sup>27</sup> Ling Shu Chapter 17《靈樞 • 脈度》: When the Qi circulates through all [vessels] alike, they cause moistening. When the Qi of the eyes fails to circulate, then the eyes cannot close. 「氣並相還,則為濡, 目氣 不榮,則目不合.」

<sup>&</sup>lt;sup>28</sup> Ling Shu Chapter 18《靈樞·營衛生會》:「壯者之氣血盛,其肌肉滑,氣道通,營衛之行,不失其常,故畫精而夜瞑。 老者 之氣血衰,其肌肉枯,氣道澀,五臟之氣相搏,其營氣衰少而衛氣內伐,故畫 不精,夜不瞑。」

In strong [persons] the *Qi* and the blood abound. Their muscles and their flesh are smooth and the paths of their *Qi* are passable. The movement of their camp and guard [qi] never loses its regularity. Hence they are of a clear [mind] during the daytime, and they close their eyes at night.

In old [persons] the Qi and the blood are weak. Their muscles and their flesh wither and the paths of their Qi are rough. The Qi of the five long-term depots strikes at each other. The camp Qi are weak and diminished, and the

chapter 71 《邪客》 explains aspects related to Ying and *Wei Qi* (衛氣) and how the presence of evil *Qi* (邪氣) inside the body can cause insomnia and sleep disorders<sup>29</sup>. Following this idea, Ling Shu, Chapter 43 《淫邪發夢》, shows that when an exogenous evil *Qi* (*xieqi* 邪氣) affects the balance between *Hun* and *Po* (*hunpo feiyang* 魂魄飛揚), this can lead to insomnia and vivid dreams.<sup>30</sup>

The Eight Extraordinary Channels exert a great influence on the processes of sleep regulation and, although all play an important role in these processes with their own peculiarities<sup>31</sup>, *Huangdi Neijing*《黃帝內經》 gives special attention to the *Yin qiao mai* (陰蹺脈) and *Yang qiao mai* (陽蹺脈) channels in several discussions. This could also be

guard *Qi* attacks their own interior. Hence they are not of a clear [mind] during the daytime, and they do not close their eyes at night.

<sup>29</sup> Ling Shu Chapter 71《靈樞·邪客》: When evil Qi settles in a person as visitors, that may cause that person to not being able to close the eyes, and hence not being able to sleep.... If now receding Qi have settled as visitors in the five long-term depots and six short-term repositories, then only the guard [qi] are responsible for guarding the exterior. They move in the Yang realm and are unable to enter the Yin realm. When they move in the Yang realm, then the Yang Qi abound. When the Yang Qi abounds, then the Yang walker [vessel] is filled. As they are unable to enter the Yin realm, the Yin realm is depleted. Hence, [such persons] cannot close their eyes. 「夫邪氣之客人也, 或令人目不瞑不臥出者..... 今厥氣客于五藏六府, 則衛氣獨衛其外, 行于陽, 不得入于陰。 行于陽則陽氣盛, 陽氣盛則陽橋陷, 不得入于陰, 陰虛, 故目不瞑. 」
<sup>30</sup> Ling Shu Chapter 43《靈樞·淫邪發夢》: "Regular evil [qi] originate from outside and attack the inside. They do not settle at a specific location. When they, contrary to normal, spread to the long-term depots, they are still unable to remain at a specific location. They move together with the camp and guard [qi]; and they fly and rise into the air together with the hun and po souls. The result is that people do not sleep peacefully and tend to have dreams"正邪從外襲內, 而未有定舍, 反淫于藏, 不得定慮, 與營衛俱行, 而與魂魄飛揚, 使人臥 不得安而喜夢"。

<sup>31</sup> Montabak op.Cit. p.22

understood as an emphasis on the metaphorical realm of *Yin* and Yang. Ling Shu, Chapter 80《大惑論》, demonstrates how problems in the circulation of *Wei Qi* (衛氣) can affect sleep and the role of *Yin qiao mai* (陰蹺脈) and *Yang qiao mai* (陽蹺脈) in this process. <sup>32</sup>

# 5. More Specific Theories on Insomnia and Sleep Disorders on the

# Huangdi Neijing 《黃帝内經》

External evil Qi (xie qi 邪氣) that lodges in the interior of the body will result in conditions excess/fullness (Shi 实). This results in disharmony in Yin (陰) and Yang (陽) and disturbance in the functions of the Zang Fu (臟腑), which will consequently cause insomnia and sleep disorders. The previously mentioned Ling Shu Chapter 71 《邪客》 explains the situation in detail. A similar process is explained in Ling Shu Chapter 43 《淫邪發夢》 but here the text shows how an Evil Qi (xie qi 邪氣) disturbs the harmony between Hun (魂) and Po (魄). Su Wen, Chapter 46 《病能》<sup>33</sup>, also has a passage referring that injury to Zang Fu (臟腑) can cause insomnia.

<sup>32</sup> Ling Shu Chapter 80《靈樞·大惑論》Qi Bo: The guard Qi are unable to enter the Yin realms; they permanently remain in the Yang realm. When they remain in the Yang realm, then the Yang realm is filled with qi. When the Yang realm is filled with qi, then [the qi] in the Yang walker [conduit] abound. Because they are unable to enter the Yin realm, the Qi in the Yin realm are depleted. Hence the eyes cannot be closed. "衛氣不得 入于陰, 常留于陽。留于陽則陽氣滿, 陽氣滿則陽蹻盛, 不得入于陰則陰氣虛, 故目不瞑矣。"
<sup>33</sup> Su Wen Chapter 46《素問・病能》: Someone lies down to sleep and there is something which does not let him rest. Why is that so?" "When the depots had been harmed and the essence has [once again its] place it moves to lean on, then [the patient] finds rest. "人有臥而有所不安者, 何也?.... 髒有所傷及, 精有所寄之, 則安。"

We can find several texts of the Huangdi Neijing 《黃帝內經》 dealing with insomnia due to injury in one of the *Zang Fu* organs. Both *Su Wen* Chapter 34《逆調論<sup>34</sup> and *Ling Shu* Chapter 80《大惑论》<sup>35</sup> explain conditions of insomnia due to injury in Intestines/Stomach (*Bude wo er xi you yin zhe, shi yangming zhi ni ye*不得臥而息有音者, 是陽明之逆也). The Liver Heat (*gan ren*肝熱) is discussed in *Su Wen* Chapter 32《刺熱

Hence, the breathing is accompanied by noises. The *Yang* brilliance is the stomach vessel. The stomach is the sea of the six palaces. Its *Qi* [usually] moves downwards, too. When the [*Qi* of the] *Yang* brilliance moves contrary [to its normal course], it cannot follow its [usual] path. Hence, one cannot lie down. When the Lower Classic states 'When the stomach is not in harmony, then one does not lie down peacefully,' then this means just the same. "不得臥而息有音者, 是陽明之逆也。 足三陽者下行, 今 逆而上行, 故息有音也。 陽明者, 胃脈也, 胃者六腑之海, 其氣亦下行, 陽明逆不得從其道, 故不得臥也。 《下經》曰: 胃不和 則臥不 安, 此之謂也"

<sup>35</sup> *Ling Shu* Chapter 80《靈樞•大惑論》: When the intestines and the stomach are enlarged, then the guard *Qi* remain there for long. When the skin is moist and when the partings in the flesh have not separated, then the movement is retarded. When they remain in the *Yin* realm for long, the *Qi* are not clear, and one wishes to close the eyes. Hence he is often asleep.

When the intestines and the stomach are small, and when the skin is smooth and relaxed, and when the partings of the flesh are open and passable, the guard *Qi* will remain in the *Yang* realm for a long time. Hence [such people] sleep less. 「故腸胃大,則衛 氣行留久,皮膚涇,分肉不解,則行遲,留于陰也久,其氣不清, 則欲瞑,故多臥矣。 其腸胃小,皮膚滑 以緩,分肉解利,衛氣之留 于陽也久,故少瞑焉」.

<sup>&</sup>lt;sup>34</sup> Su Wen Chapter 34《素問•逆調論》: "When someone cannot lie down and when his breathing is accompanied by noises, this is [a case of] Yang brilliance [qi] moving contrary [to its normal course]. The [Qi in the] three-foot Yang [conduits] moves downwards. In the present case, it moves contrary [to its normal course] and rises.

》<sup>36</sup> and other conditions as liver blockage (gan bi 肝痹) and Liver congestion (gan yong 肝雍) are explained in Su Wen Chapter 43 《痹論》<sup>37</sup> and Su Wen Chapter 48 《大奇論》 <sup>38</sup>. Depression and the stagnation of Liver Qi (gan yu qi zhi肝郁氣滯); Liver Heat (gan shi re肝實熱) and any stagnation of Qi that develop into fire can potentially disrupt the harmonious circulation of Ying/Wei Qi, finally causing insomnia. Conditions produced by Depression of Liver Qi or Heart/Fire will directly affect the Shen (神), contributing to the manifestation of insomnia. According to Su Wen Chapter 33 《評熱病論》<sup>39</sup> and Su Wen Chapter 34 《逆調論》<sup>40<sup>40</sup></sup> even some Kidney conditions also can cause insomnia. Details about other illnesses that can cause insomnia are described in Ling Shu Chapter 22 《癫狂

<sup>38</sup> Su Wen Chapter 48《素問·大奇論》: [The patient experiences] fullness in the two upper flanks. When he lies down to sleep, he is frightened. He is unable to pass urine. "肝雍, 兩胠滿, 臥則驚, 不得小便. 」
<sup>39</sup> Su Wen Chapter 33《素問·評熱病論》: Someone suffers from kidney wind... Whenever [someone has] a water disease, as a rule, he cannot lie down. When he lies down, then he is scared. "腎風......諸水病者, 故不得臥, 臥則驚".

<sup>40</sup> Su Wen Chapter 34《素問·逆調論》: 「夫不得臥, 臥則喘息, 是水氣之客也...... 腎者, 水藏, 主津液, 主 臥與喘也」.

<sup>&</sup>lt;sup>36</sup> Su Wen Chapter 32《素問・刺熱》: When the liver has a heat disease, The flanks are full and have pain. The hands and the feet move restlessly. [The patient] cannot sleep peacefully. "肝熱病者.... 脅滿 痛, 手足躁, 不得安臥."

<sup>&</sup>lt;sup>37</sup> Su Wen Chapter 43 《素問•痹論》: In the case of a liver block, at night when [the patient] lies down he is scared. [The patient] drinks a lot and urinates frequently. "肝痹者, 夜臥則驚, 多飲數小便, 上為引如懷."

》<sup>41</sup> and *Ling Shu* 35《脹論》<sup>42</sup> and there are still other conditions like coughing (*kesou* 咳嗽), vomiting (*outu* 嘔), abdominal fullness (*fuman* 腹滿) that are described in the *Huangdi Neijing*《黄帝內經》 also as possible causes of insomnia.

6. From "Harmonize Yin and Yang" (tiaohe yinyang 調和陰陽) to "Pacify the Heart-Brain-Shen" (anxin nao shen安心腦神). A comparison and analysis of the transformations between acupoints and methods used in the treatment of insomnia in Ancient and Modern China.

In recent years, with the emergence of databases containing massive amounts of information from thousands of ancient books and the scanning and real time updates of published scientific articles, it became possible to search for much of the medical literature of both the imperial and modern times in China.

<sup>&</sup>lt;sup>41</sup> Ling Shu Chapter 22《靈樞·癲狂》: At the beginning of an outbreak of madness, [the patients] sleep little. "狂始發, 少臥不 饑。"

<sup>&</sup>lt;sup>42</sup> Ling Shu 35《靈樞·脹論》: "In the case of a heart swelling [patients have] a vexed heart and they are short of [breath] qi. They cannot sleep peacefully." "夫心脹者, 煩心短氣, 臥不安...... 脾脹者, 善噦, 四肢煩悗, 體重不能勝衣, 臥不安。"

As for insomnia, Chen (2014)<sup>43</sup>, Liu et al. (2007)<sup>44</sup>, Huang (2010)<sup>45</sup> and Kong et al. (2016)<sup>46</sup> are the authors of some of the most significant comparative studies conducted in China aiming to investigate and compare methods and acupoints used in Ancient China and contemporary methods of treatment.

These studies mainly rely on the "Encyclopedia of Traditional Chinese Medicine"《 中华医典》, a tool to research into medical books of ancient China, which is the world's largest database on this subject. In addition, to search for modern treatments the researchers used the China National Knowledge Infrastructure (CNKI) database and the China Modern Acupuncture-moxibustion Information Databank 《中国现代针灸信息数 据库》 with searches between 1956 and 2015.

The conclusions of these papers are very similar and the discussions too broad to fit into a single paper. We will show the most relevant results. These results clearly emphasize the dramatic differences in the selection of acupoints when comparing the post-1950 and imperial periods.

The following table is a summary that shows this comparative in the case of acupuncture for insomnia treatment.

 <sup>&</sup>lt;sup>43</sup> Chen Li Cao Xingmei Zhang Fengcong. "Comparative Analysis of Ancient and Modern Acupuncture
 Prescription in Treating Insomnia". *International Journal of Traditional Chinese Medicine* 2014, 36(9), 2014, pp. 827-829.

<sup>&</sup>lt;sup>44</sup> Liu, L., Gu, J. and Huang, Q. Analysis of Acupuncture Treatment Characteristics of Insomnia in Ancient Times. *Journal of Acupuncture and Tuina Science*, 5(4), 2007, pp.193-197.

<sup>&</sup>lt;sup>45</sup> Huang, Q. Exploration of the Clinical Regularity of Acupuncture and Moxibustion Treatment for Insomnia. *Journal of Acupuncture and Tuina Science*, 8 (1), 2010, pp.12-16.

<sup>&</sup>lt;sup>46</sup> Kong Yi; Wang Aiyun; *Yin* Jianwei; Xu Ze; Bu Yanqing; Du Guangzhong. Application of Frequently-Used Acupoints for Insomnia, *Liaoning Journal of Traditional Chinese Medicine*, 2016-05. pp 1049-1052

# TABLE 3- FROM CHEN (2014) NUMBER OF CITATIONS OF ACUPOINTS FORTREATING INSOMNIA IN ANCIENT AND MODERN WORKS

ACUPOINTS	PRE-MODERN		MODERN WORKS	
常用穴位	WORKS			
	citations	frequency	citations	frequency
HT 7 Shenmen 神門	3	0.88	146	7.44
SP 6 Sanyinjiao 三陰交	7	2.06	141	7.19
DU 20 Baihui 百會	7	2.06	115	5.86
ST 36 Zusanli 足三里	4	1.18	108	5.5
Liv 3 Taichong 太衝	1	0.29	105	5.35
BL 15 Xinshu 心俞	14	4.12	90	4.59
KI 3 Taixi 太谿	7	2.06	91	4.64
PC 6 Neiguan 内關	3	0.88	94	4.79
EX-HN1 Sishencong 四神聰	0	0	89	4.54
BL 20 Pishu 脾俞	2	0.59	78	3.98
BL 23 Shenshu 腎俞	3	0.88	57	2.91
M-HN-54 (Anmian) 安眠	0	0	55	2.8
SP 9 Yinlingquan 陰陵泉	9	2.65	18	0.76
Ren 4 Guanyuan 關元	15	4.41	8	0.41
SP 1 Yinbai 隱白	12	3.53	10	0.51
Ren 13 Shangwan 上院	16	4.71	1	0.05
Ren 6 Qihai 氣海	8	2.35	8	0.41
SP 4 Gongsun 公孫	8	2.35	5	0.25
LU 9 Taiyuan 太淵	13	3.82	0	0
LI 8 Xialian 下廉	9	2.65	0	0
Ren 7 Yinjiao 陰交	8	2.35	1	0.05
ST 45 Lidui 歷兌	8	2.35	0	0

Below is a summary of the findings and analyzes of all the works mentioned above (Chen (2008), Liu, Gu and Huang (2007), Huang (2010) and Kong (2016)):

- 1- The Modern clinical practice of Traditional Chinese Medicine (TCM) stresses that the "Heart Governs the Mind" (*xin zhushen* 心主神) and often selects the acupoints of the heart channel and pericardium channel to treat insomnia, such as *Shenmen* (HT-7), *Tongli* (HT-5), *Daling* (PC-7), *Neiguan* (PC-6) and *Laogong* (PC-8). Acupoints of the heart channel and pericardium channel were almost ignored to treat insomnia in the ancient times. Several acupoints such as Ren-13 (*Shangwan* 上脘), ST-45 (*Lidui* 歷兌), LI-8 (*Xialian* 下廉), and Ren-7 (*Yinjiao* 陰交) that were used frequently in ancient China are no longer prescribed.
- 2- Modern doctors reinforce (*bu* 補) Yin qiao mai (陰蹺脈) and reduce (xie 瀉) Yang qiao mai (陽蹺脈) to treat insomnia.
- 3- The ancient acupuncturists selected points more dispersed and with flexible approaches; acupoints are mainly concentrated in the chest, abdomen and in the four members of the body, for example LU-9 (*Taiyuan* 太淵) in Lung diseases, KID-3 (*Taixi* 太谿) in diseases of Kidney, HT-7 (*Shenmen* 神門) in diseases of Heart, etc.
- 4- Modern acupuncture points selection is relatively concentrated, the prescriptions are relatively fixed and the acupoints are mainly concentrated in the head and neck and lower limb;
- 5- Both modern and ancient acupuncturists use acupoints that are mainly concentrated in the Urinary bladder channel of foot Taiyang.<sup>47</sup>

<sup>&</sup>lt;sup>47</sup> The importance of the Bladder channel, its connection to the brain, and the extraordinary channels *Yin* (陰) *and Yang* 陽) Wei is emphasized in Chapter 21 Ling Shu《靈樞 - 寒熱病》.

- 6- Frequent use of acupoints of the Spleen and Stomach channels in prescriptions of both ancient and modern times.
- 7- The modern treatments fundamentally rely on diagnostics based on syndrome differentiation patterns especially the Zang Fu (臟腑) differentiation patterns (zangfu bianzheng 臟腑辨證) and the Jing Luo (Channel/meridian) differentiation patterns (jingluo bianzheng 經絡辨證). The result most often follows the basic formula: A fixed group of major acupoints (based on scientific research with proven results) plus a group of supporting acupoints, which individualize the treatment following the guidelines of syndromic differentiation systems.
- 8- Prescriptions of ancient China were composed initially with single or two acupoints and later prescriptions became more complex and with the addition of more acupoints.

Examples:

#### Early Imperial China:

《針灸甲乙經》 Zhenjiu Jiayi Jing (Western Jin Dynasty 256-28 C.E.):

Ren-7 (*Yinjiao* 陰交) to treat Insomnia caused by Fright (*Jing bude mian* 驚不得眠).<sup>48</sup>

#### Late Imperial China:

《針灸大成》Zhenjiu dacheng (Ming Dynasty 1522~1620 C.E.): LU-9 (Taiyuan 太淵), SP-4 (Gongsun 公孫), BL13 (Feishu肺俞), SP-9 (Yinlingquan 陰陵泉), SP-6 (Sanyinjiao 三陰交) to treat Insomnia caused by Vexation (Fanmen bu wo 煩悶不臥).<sup>49</sup>

Several prescriptions of acupoints from ancient China were more oriented for

bleeding and moxibustion methods and not necessarily for stimuli using filiform needles

<sup>48 《</sup>針灸甲乙經》:「驚不得眠. . . . 陰交主之. 」

<sup>49《</sup>針灸大成》「煩悶不臥: 太淵、公孫、隱白、肺俞、陰陵泉、三陰交. 」

(haozhen 毫針) as those used in the practice of acupuncture today. This is especially true for acupoints such as ST-45 (Lidui 歷兌) and LI-8 (Xialian 下廉) in regard of bleeding and Ren-7 (Yinjiao 陰交) in regard of moxibustion.

The *Huangdi Neijing*《黄帝內經》 introduced treatment strategies and general principles of acupuncture point selections for insomnia and sleep disorders following the most fundamental principles of treatment for virtually any disease such as Balance the *Yin and Yang (tiaohe yinyang*調和陰陽) and reinforcing (*bu* 補) and reducing (*xie* 瀉) methods. As we can see below:

Su Wen Chapter 5《陰陽應象大論》:

*Those who know well how to use the needles, from the Yin they pull the Yang and from the Yang they pull the yin.*<sup>50</sup>

Ling Shu Chapter 5《根結》:

For the application of the needles it is essential to know how to balance the Yin and the Yang [qi]. Once Yin and Yang [qi] are balanced, the essence Qi will be luminous. Once the physical appearance constitutes one entity with the qi, the spirit will be retained internally.<sup>51</sup>

Ling Shu 71《邪客》:

Supplementation is required where there is an insufficiency, and drainage is required where there is a surplus. Depletion and repletion are to be balanced to make the paths passable. This way one removes the

50 "故善用針者,從陰引陽,從陽引陰".

51 "用針之要,在於知調陰與陽, 調陽與陰, 精氣乃光, 合形于氣, 使神內藏. 」

evil [qi]... As soon as the Yin and Yang [conduits] are passable again, he will immediately fall into sleep.<sup>52</sup>

Ling Shu 80《大惑論》:

Huang Di: To cure all these evil [conditions], how to proceed? Qi Bo: First [attention is directed at] the long-term depots and short-term repositories, and minor transgressions are to be punished. Then the Qi are regulated. Those that abound, they are drained. Those in a condition of depletion, they are to be supplemented. It is essential to first clearly recognize to what degree the physical appearance and the mind suffer or are joyful. Once that is defined, one removes the [disease].<sup>53</sup>

However, since the 1950s, the general principles of selection of acupuncture points and strategies of modern treatments have undergone profound transformations compared with those of ancient China and can be summarized as follows:

<sup>52 &</sup>quot;補其不足,瀉其有餘,調其虛實,以通其道,而去 其邪. . . 陰陽已通,其臥立至. "

<sup>&</sup>lt;sup>53</sup> "善。治此諸邪,奈何?歧伯曰:先其藏府,誅其小過,後調其氣,盛者寫之,虛者補之,必先明知 其形志之苦樂,定乃取之."

1. An intense focus on scientific research in the areas of neuroanatomy<sup>54</sup>, neurophysiology<sup>55</sup>, neuro- endocrine–immune network<sup>56</sup>, systems biology<sup>57</sup>, etc. and in the search for scientific evidence on the biological mechanisms of Acupuncture. The modern practice of acupuncture in the context of TCM is guided by these principles and its development is guided by central ideas of Western science like "Progress" and "Development".

2. Develops the relationship between Heart, Brain, and Shen (*Xin naoshen* 心腦神).<sup>58</sup> The modern prescriptions promote acupoints that fit into the Heart-Brain-Shen (*Xin naoshen* 心腦神) theory, minimizing the importance of other treatment strategies. This explains the emergence of acupoints such as HT-7 (*Shenmen* 神門), PC-6 (*Neiguan* 內 關) and BL-15 (*Xinshu* 心俞).

3. Acupoints of the extraordinary channel *Du mai* (督脈) are very frequently used. The use of acupoints of the Extraordinary Channel *Du mai* (督脈) is further emphasized in modern treatments because this channel has an intimate relationship with the brain.

<sup>&</sup>lt;sup>54</sup> Cheng, K. Neuroanatomical Basis of Acupuncture Treatment for Some Common Illnesses. *Acupuncture in Medicine*, 27(2), 2009, pp.61-64.

<sup>&</sup>lt;sup>55</sup> Huang, W., Kutner, N., & Bliwise, D. L. Autonomic Activation in Insomnia: The Case for Acupuncture. *Journal of Clinical Sleep Medicine JCSM: Official Publication of the American Academy of Sleep Medicine*, 7(1), 2011, 95–102.

<sup>&</sup>lt;sup>56</sup> Ding, S., Hong, S., Wang, C., Guo, Y., Wang, Z. and Xu, Y. Acupuncture modulates the neuro-endocrineimmune network. QJM, 107(5), 2013, pp.341-345.

<sup>&</sup>lt;sup>57</sup> Zhang, A., Sun, H., Yan, G., Cheng, W. and Wang, X. Systems biology approach opens door to the essence of acupuncture. *Complementary Therapies in Medicine*, 21(3), 2013, pp.253-259.

<sup>&</sup>lt;sup>58</sup> Simultaneous treatment of the Heart and the Brain (*xin nao tongzhi*心腦同治); From the Heart Treat the Brain (*cong xin zhi nao* 從心治腦); From the Brain Treat the Heart (*cong nao zhi xin*從腦治心).

Acupoints of the *Du mai* (督脈) channel along with points of Heart channel are the center of all modern treatments for insomnia.

- 4. The emergence of ST-36 (*Zusanli* 足三里) as a point of systemic action in insomnia protocols is also observed, possibly following the principle established in *Ling Shu* Chapter 4《邪氣藏府病形》:
- "合治內府" (he zhi nei fu). The confluence [openings] serves to treat the internal short-term repositories.
- 5. Acupoints from other channels as the Gallbladder (eg GB-13 *Benshen* 本神, GB-20 *Fengchi* 風池) and Bladder "Back Shu" acupoints (*Bei shu xue* 背俞穴) are also widely used. These channels are directly connected to the providing a good rationale and justification for their use in modern times. These acupoints were already widely used in ancient times but instead, because of their roles in harmonizing the *Zang Fu* ( 臟腑).
- 6. The relationship between *Du mai* and Bladder channels with the brain was already considered in the *Huangdi Neijing*《黄帝內經》 and other texts <sup>59</sup>. However, in modern times they are also (or mainly) chosen for their direct correlation with the Brain and Heart.<sup>60</sup>
- 7. Emphasis on use of *Yin* (陰) *and Yang* (陽) *Qiao* extraordinary channels and the use of BL-62 (*Shen Mai* 申脈), KID-6 (*Zhao Hai* 照海) that are points that balance Ying and Wei and promote communication between *Yin* (陰) *and Yang* (陽) by harmonizing circadian cycle. This is also because of the relationship of these channels with the brain<sup>61</sup> and with the processes of awakening and falling asleep.

<sup>&</sup>lt;sup>59</sup> Su Wen Chapter 60 《素問·骨空論》, Ling Shu Chapter 10 《經脈》, and Nanjing Issue 28

<sup>《</sup>難經·二十八難》

<sup>&</sup>lt;sup>60</sup> Shen Lin Lai. *Chutan bangguang jing de naoshu xingji qiyu xinjing zhi guanxi* [J].Shijie Zhongyi, 8(03),
2013, pp. 272-274.

<sup>&</sup>lt;sup>61</sup> The basis of this correlation is in Ling Shu Chapter 21《靈樞·寒熱病》:

8. Emphasizes the use of recently discovered extra acupoints based on the combination of Chinese and Western medicine concepts such as the extra point Ex-HN-3 (*Yintang* 印堂), located in the head and inside the pathway of *Du mai* channel (a channel that, as we have seen, is related to the brain) and the extra point Ex-HN-20 (*Anmian* 安眠), that is also located in the head region.

<sup>&</sup>quot;Where the foot major Yang [conduit] passes through the nape, and enters the brain, the main [course] is tied to the base of the eye. that is called "eye ribbon". In the case of headache and aching eyes, the [disease] is to be removed in the nape between the two sinews. Where it enters the brain, it branches out into the Yin walker and the Yang walker [vessels]. Yin and Yang [vessels] cross each other. The Yang [conduit] enters the Yin realm; the Yin [conduit] leaves from the Yang realm. >They cross each other at the tip of the eye at the corner of the eye." 足太陽有通項入于腦者,正屬目本,名曰眼系。 頭目苦痛,取之在項中兩筋間。 入腦乃別陰蹻、 陽蹻,陰陽相交,陽入陰,陰 出陽,交于目銳眥,陽氣盛則瞋目,陰氣盛則瞑目。

# 7. A Case Study: The Role of the Acupoints Ren-7 (Yinjiao 陰交) and EX-HN1 (Sishencong 四神聰) in Classical and Modern

# **Treatment Prescriptions**

Next, we will analyze and make some considerations on the role of the acupoints *Ren-7* (*Yinjiao* 陰交) and EX-HN1 (*Sishencong* 四神聰) in classical and modern treatment prescriptions.

The acupoint Ren-7 (*Yinjiao* 陰交)<sup>62</sup> along with the BL-38 (*Fuxi* 浮鄭) appears in the *Zhenjiu Jiayi Jing* 《針灸甲乙經》 from Western Jin period (256-282C.E.) on a prescription of acupuncture and moxibustion to treat insomnia<sup>63</sup>, and the prescription of this acupoint still can be identified in important works of the later dynasties such as Insomnia *Zhenjiu Jicheng* 《針灸集成》 from 1874 C.E.<sup>64</sup>

However, in the last 60 years, discussions and prescriptions related to Ren-7 (*Yinjiao* 陰交) to the treatment of insomnia *vanished* from most textbooks.<sup>65</sup>

Some of the most important textbooks on acupuncture in the West do not mention the use of this acupoint to treat insomnia (See Table 1). Other points, as for example ST-

<sup>&</sup>lt;sup>62</sup> The acupoint Ren-7 (*yinjiao* 陰交) is located on the midline of the abdomen; 1 cun inferior to the umbilicus.
<sup>63</sup> 《針灸甲乙經》「驚悸不得眠取陰交.不得臥取浮鄭」

<sup>&</sup>lt;sup>64</sup> Other significant medical works from imperial China continued to prescribe the Ren-7 acupoint to treat insomnia: *Beiji Qianjinyaofang* by Sun Simiao 652 C. E.: Ren-7, Ren-6 ad ST-27 to treat Insomnia caused by Frigth《備急千金要方》 「陰 交、氣海、大巨, 主驚不得臥」 and *Zhenjiu jicheng* by Liao Runhong 1874

<sup>:</sup> One hundred moxa cones in Ren-7 to treat Insomnia.《針灸集成》「無睡陰交〈灸百壯〉」

<sup>&</sup>lt;sup>65</sup> The same occurs with the BL-38 acupoint that is currently only described in prescriptions to treat specific problems in the region of the knee joint in modern textbooks

45 (*Lidui* 厲兌), continue to be described for the treatment of insomnia in the text of these books even though not so frequently used as we shown previously.

Some textbooks refer to the use of this acupoint for the treatment of a condition called "Running Piglet" (*ben tun* 奔豚), which is a very important (but indirect) reference. In this condition, fright (*jing* 驚), plays a central role and thus, as we have seen, leads to insomnia. "Running Piglet" (*ben tun* 奔豚) can be correlated to what we call "panic attack" in western medicine.<sup>66</sup>

(Cheng and Deng, 2010)	(Liu, 1997)
Abdominal distension, edema, hernia, irregular	Digestive Diseases: Diarrhea,
menstruation, uterine bleeding, morbid leukorrhea,	borborygmus, abdominal
pruritus vulvae, postpartum hemorrhage, abdominal	distention, chronic diarrhea, and
pain around the umbilicus.	dysentery. Urinary Diseases:
	Retention of urine, abdominal
	fullness, edema. Reproductive
	Diseases; Irregular menstruation,
	leukorrhea with reddish
	discharge. Postpartum persistent
	lochia, retention of placenta.
	Other Diseases: Hernia, lumbago.
(Doodmon Al Khofoji and Dalvan 2011)	
(Deadman, Al-Khafaji and Baker, 2011)	(Maciocia, 2015) Heavy periods painful periods
Uterine bleeding, irregular menstruation,	Heavy periods, painful periods,
Uterine bleeding, irregular menstruation,	Heavy periods, painful periods,
Uterine bleeding, irregular menstruation, amenorrhea, infertility, leucorrhoea, persistent flow	Heavy periods, painful periods, irregular periods, amenorrhea,
Uterine bleeding, irregular menstruation, amenorrhea, infertility, leucorrhoea, persistent flow of lochia, diseases of the breast. Hardness and pain of	Heavy periods, painful periods, irregular periods, amenorrhea, infertility, Hardness and pain of
Uterine bleeding, irregular menstruation, amenorrhea, infertility, leucorrhoea, persistent flow of lochia, diseases of the breast. Hardness and pain of the abdomen radiating to the genitals, retraction of	Heavy periods, painful periods, irregular periods, amenorrhea, infertility, Hardness and pain of the abdomen, Running Piglet
Uterine bleeding, irregular menstruation, amenorrhea, infertility, leucorrhoea, persistent flow of lochia, diseases of the breast. Hardness and pain of the abdomen radiating to the genitals, retraction of the testicles, painful <i>shan</i> disorder, cold <i>shan</i>	Heavy periods, painful periods, irregular periods, amenorrhea, infertility, Hardness and pain of the abdomen, Running Piglet Syndrome, chest pain,
Uterine bleeding, irregular menstruation, amenorrhea, infertility, leucorrhoea, persistent flow of lochia, diseases of the breast. Hardness and pain of the abdomen radiating to the genitals, retraction of the testicles, painful <i>shan</i> disorder, cold <i>shan</i> disorder, sweating of the genitals, damp itching of	Heavy periods, painful periods, irregular periods, amenorrhea, infertility, Hardness and pain of the abdomen, Running Piglet Syndrome, chest pain, hypogastric pain, umbilical pain, Hernia and Genitourinary
Uterine bleeding, irregular menstruation, amenorrhea, infertility, leucorrhoea, persistent flow of lochia, diseases of the breast. Hardness and pain of the abdomen radiating to the genitals, retraction of the testicles, painful <i>shan</i> disorder, cold <i>shan</i> disorder, sweating of the genitals, damp itching of the genitals, pain of the hypogastrium, heat sensation	Heavy periods, painful periods, irregular periods, amenorrhea, infertility, Hardness and pain of the abdomen, Running Piglet Syndrome, chest pain, hypogastric pain, umbilical pain,

TABLE 4 - INDICATIONS OF THE ACUPOINT REN 7 (*YINJIAO* 陰交)

<sup>66</sup>《金匱要略·奔豚氣病脈證治》:「病有奔豚,有吐膿,有驚怖,有火邪,此四部病,皆從驚發得之

。 」and 《金匱要略 心典》: 「驚怖即驚恐, 蓋病從驚得, 而驚氣即為病氣也。 」

borborygmus. Pain of the lumbar spine, contraction	Dampness, retention of urine and
of the lumbar spine and knees, failure of the	faeces, Menopausal hot flushes.
fontanelle to close.	
Nosebleed, running piglet qi, vomiting blood, pain	
of the chest and lateral costal region.	

8. The Manifold Roles of the Acupoint Ren-7 (Yinjiao 陰交) in the

## Treatment of Insomnia

The Zhenjiu Jiayi Jing 《針灸甲乙經》 by Huangfu Mi. 282 C.E. says:

*"For insomnia due to fright, propensity toward bruxism, and water Qi moving up and down which is the wandering Qi of the five viscera, Yin Intersection (Yinjiao, Ren-7) is the ruling point."*<sup>67</sup>

#### According to Hu Hui (2009):

"Ren-7 (Yinjiao 陰交) is located at an intersection point of 3 important channels: Ren Mai, Chong Mai, and Kidney. It influences the menstruation and regulates de Qi, warm the lower heater and improve the flow of Qi and Blood in Yin Channels resulting in an effect that will calm the Heart Shen."<sup>68</sup>

#### According to Dennis Willmont (2001), Ren-7 (Yinjiao 陰交):

"is the fourth and uppermost point of the Lower Dantian. As such, it connects the Lower Dantian with several other major areas and functions including 1) The Internal Duct of the Triple Heater; 2) The "Upper Sea of Qi, i. e. the Tanzhong (Ren 17) area of the Chest; 3) The Three Leg Yin, and 4) The Chong mai/Yin Wei."<sup>69</sup>

<sup>67&</sup>quot;驚不得眠,善齘水氣上下,五臟游氣也,陰交主之。"

<sup>68</sup> Hu, H. Zhen jiu zhi liao shi mian. Beijing: Ren min wei sheng chu ban she, 2009, p.14.

<sup>&</sup>lt;sup>69</sup> Willmont, D. Energetic Physiology in the Acupuncture Point Names. Willmountain Press: Roslindale, MA, 2001, p.514.

Now is clear and easy to understand that this point can treat insomnia because its internal connections with different important channels and systems that promote the balance of *Yin* and *Yang*, connects the channels Kidney (*ZushaoYin Shenjing* 足少陰腎經), *Yin wei mai* 陰維脈 and *Chong mai* 衝脈 and promotes the connection between Lower Sea of *Qi* and Upper Sea of Qi.

As we mentioned above, the primary cause of insomnia that Ren-7 (*Yinjiao* 陰交) can treat is a specific emotion described as Jing (驚) – to be scared, to be frightened – and for this reason Ren-7 (*Yinjiao* 陰交) is a good choice due its ability to harmonize Water and Fire, that is represented by Kidney (located on Lower Sea of Qi) and Heart (located on Upper Sea of Qi)<sup>70</sup>, and furthermore, Ren-7 will influence the brain (the Sea of Marrow) through the *Chong mai* 衝脈 and according to the theory of the 4 Seas (*Si hai* 四海), stated in *Ling Shu* Chapter 33《海論》.

<sup>&</sup>lt;sup>70</sup> Su Wen Chapter 39《素問·舉痛論》「驚則心無所倚,神無所歸,慮無所定,故氣亂矣」。「恐則 氣下,驚則氣亂」 and the Zabing Yuanliu Xizhu Jingji Beikong Xinuyousi Yuanliu 《雜病源流犀燭,驚悸悲 恐喜怒憂思源流》 「恐者,心腎肝胃病也。 心藏神,神傷則心怯而恐,火傷水也」

# 9. The Role of the Extra Acupoints EX-HN1 (Si Shencong 四神聰

-) in the Treatment of Insomnia: a Modern Discovery.

The SiShencong, formerly known as Shencong (神聰), are a group of four points at the vertex, located one cun from Du-20 (Baihui) in a cross-formation.

This earliest name is seen in the work *Yinhai Jingwei*《銀海精微》 by Sun Simiao 孫思邈 (682 C.E.) and originally refer to four points also in a cross-formation but, instead, located 2.5 cun from Du-20 (*Baihui* 百會).

The first description of the current location of these points appeared in the work *Taiping Shenghuifang* 《太平聖惠方》by Wang Hui*Yin* (992 C.E.), where these points appear with the name *Shen Sicong* (神四聰) instead of EX-HN1 (*Si Shencong* 四神聰)<sup>71</sup>.

Two of the four acupoints of EX-HN1 (Si Shencong 四神聰), are located on the pathway of Governor Vessel, and the other two are next to the Bladder Channel.<sup>72</sup>

Originally this group of acupoints was not prescribed for insomnia treatment in any ancient works and even in the first modern works. In ancient works, EX-HN1 (*Si Shencong* 四神聰) are prescribed only for a type of condition called "Wind Syndrome of the Head with Blurred Vision" (頭風目眩) that causes a headache with blurred vision. Another condition where these points are prescribed is called "Restlessness and Verbal Delirium (狂亂瘋癇).

<sup>71 《</sup>太平聖惠方》: 神聰四穴, 理頭風目眩, 狂亂瘋癇, 針入三分.

<sup>&</sup>lt;sup>72</sup> Wu, Z. Clinical Applications of Acupoints Baihui (GV 20) and Sishencong (Ex-HN 1). *Journal of Acupuncture and Tuina Science*, 8(6), 2010, pp.394-396.

Since the 1970s the list of indications of the EX-HN1 (*Si Shencong* 四神聰) has increased sharply and according to the modern textbooks the EX-HN1 (*Si Shencong* 四神 聰) are indicated to: Awaken the mind and open orifices, lift up *Yang* and improve the deficiency, as well as to dredge the channels, improve the circulation of blood and strengthen the body constitution.<sup>73</sup>

Table 5 shows the list of indications of EX-HN1 (*Si Shencong* 四神聰) and in this case, all the same textbooks presented in table 4 include insomnia when describing the indications of *EX-HN1* (*Si Shencong* 四神聰).

Cheng and Deng (2010)	Liu (1997)
Headache, vertigo, insomnia, poor memory, epilepsy.	Wind-stroke, headache, blurred vision, epilepsy, manic- depressive disorders, poor memory, dreaminess, <b>insomnia</b> , tinnitus, hydrocephalus and cerebral dysgenesis.
Maciocia (2015)	Deadman, Al-Khafaji and Baker (2011)
Epilepsy, Wind-stroke. Manic depression, <b>insomnia</b> . Blurred vision, deafness.	Windstroke, epilepsy, mania-depression, insomnia, poor memory. One-sided and generalized headache, dizziness, deafness, disorders of the eyes.

TABLE 5- INDICATIONS OF THE EX-HN1 (Si Shencong 四神聰) IN MODERN TEXTBOOKS.

The first report of the use of this group of points specifically in the treatment of insomnia and sleep disorders dates from  $1994^{74}$  and after that, this group of extra acupoints became intensively researched and a standard to be used in combination with other acupoints such as *Ex-HN-20* (*Anmian*安眠), *DU* 20 (*Baihui* 百會) and HT 7

<sup>73</sup> Ibid

<sup>&</sup>lt;sup>74</sup> Jie Y. Q., Jie Y. Y. Zhen ci si shen cong zhiliao shui mian zhan gai 124 li. Xin Zhongyi 6,1994, pp. 31-32.

(Shenmen 神門)<sup>75</sup>, reshaping the way insomnia is treated by acupuncture and moxibustion.

This coincides with the popularization and intensification of the relationship between TCM and theories related to neuroanatomy and neurophysiology.

Modern Chinese medicine holds that the functions of the heart and brain interact and affect each other physically and pathologically. We can find in *Su Wen* Chapter 17 《 脈耍精微論》a discussion about the brain but this chapter do not elaborate any specific theory correlating *Shen* (神) and *Brain* (腦).<sup>76</sup>

The use of acupoints of *Dumai* (督脈) to treat insomnia began in late imperial China, certainly influenced by the ideas of Li Shizhen (李時珍) in *Bencao Ganmu*《本草 綱目》: "The Brain is the house of the original Shen" (*Nao wei yuan shen zhi fu* 腦為元神之府) and Wang Qinren (王清任) in his *Yilin Gaicuo* 《醫林改錯》: "The inspiration and the memory are not located in the Heart but in the Brain" (*lingji ji xing buzai xin zai nao* 靈機記性不在心在腦). This thinking was further refined and consolidated during the Republican period (1860 ~ 1933) by Zhang Xichun (張錫純), a major exponent of the School of Fusion of Chinese and Western Medicine (*zhong xiyi huitong pai* 中西醫匯通派).<sup>77</sup>

<sup>&</sup>lt;sup>75</sup> Ex-HN-20 (*Anmian*安眠), is a recent discovery that appeared in the work 《常用新医疗法手册》 from 1974, based on principles of neuroanatomy and neurophysiology applied to acupuncture.

<sup>&</sup>lt;sup>76</sup> Su Wen Chapter 17《素問. 脈耍精微論》" as for the head, it is the palace of essence brilliance""頭者, 精明之府".

<sup>&</sup>lt;sup>77</sup> Pan Dawei. *Analysis on the Thought of "Heart and Brain Co-govern Spirit" of Zhang Xichun*. Lishizhen Medicine and Materia Medica Research, 12, 2007: pp. 3133-3134.

After the 1950s and much more emphatically after the 1980s, the TCM further elaborated this synthesis incorporating in its theoretical framework the findings, ideas, and practices coming from fields of western science such as the already mentioned neurophysiology and neuroanatomy.

Thus, the new idea: "The Brain Rules the *Shen Ming*" (*Nao zhu shenming* 腦主神明) is the possible cause of the sharp increase of acupoints that have a direct relation with *Shen* (神)<sup>78</sup> in modern prescriptions to treat insomnia by acupuncture. One example is the emergence of acupoints whose name has the character *Shen* (神), as Du-23 (*Shen Ting* 神庭), GB- 13 (*Ben Shen* 本神), EX-HN1 (*Si Shencong* 四神聰) in these prescriptions.

# 10. Building Bridges: The Perspective of Constructive Realism

There is a clear division between the approaches to treat insomnia in ancient China and in the present day. Looking to ancient China, first, we notice the co-existence of a constellation of different, and sometimes contradictory theories on the causes, diagnosis and treatment of insomnia that have been developed or improved through the ages always and taking the theories and expositions of *Huangdi Neijing* 《黄帝内》 as a starting point and main foundation.

In Classical Chinese Medicine any contradiction does not lead to an exclusion of the contradicted, instead, it opens new ranges of meaning.<sup>79</sup>

<sup>&</sup>lt;sup>78</sup> It is not the purpose of this article, but the aspects of 神 Shen imagined by the ancient Chinese are not equivalent to the concepts and definitions of 神 Shen that the modern TCM, influenced by biomedicine, coined leading to further discussions. Lan, F., Wallner, F. and Wobovnik, C. Shen, Psychotherapy, and Acupuncture. Peter Lang: Frankfurt am Main, 2011.

<sup>&</sup>lt;sup>79</sup> Wallner, F., Jandl, M. and Greiner, K. Science, Medicine, and Culture. Peter Lang: Frankfurt a.M., 2005, pp.56, 58.

This view is unacceptable and rejected in western medical thinking and after the scientific rationalism and Western ideals of "progress" and "development" began to govern the agenda of modern Chinese medicine, the theories that do not fit in the *acceptable framework* will be relegated to ostracism. The western scientific way of thinking is determining which theories, practices, and genealogies are maintained and which are suppressed.<sup>80</sup>

The original role of an acupoint such as Ren-7 (*Yinjiao* 陰交) is incomprehensible in the current theoretical framework of modern TCM discourse about the treatment of insomnia because modern TCM explanations are essentially guided and developed following the trends and discourse of western science. In a wider sense, this is the case for a large number of prescriptions involving acupuncture points such as Ren-7 (*Yinjiao* 陰交 ), LU-9 (*Taiyuan* 太淵), LI-8 (*Xialian* 下廉) and ST-45 (*Lidui* 厲兌) to treat insomnia. After centuries being used and prescribed in different ancient medical books, they began to be ignored. Not for their clinical effectiveness compared to new propositions but because they refer to phenomena that do not fit within the discourses and practices of modern science and thus remain outside the TCM *accepted framework*.

The marginalization or invisibility of these ancient propositions also contributes to reinforcing the stereotyped attitude held by a large number of contemporary researchers, including Chinese researchers, that Classical acupuncture and Classical Chinese medicine are outdated, contradictory (in a derogatory sense), incomprehensible and, for some with more radical views, useless.

<sup>&</sup>lt;sup>80</sup> "We have theories that work in restricted regions, we have purely formal attempts to condense them into a single formula. . . phenomena that do not fit into the accepted framework are suppressed." Feyerabend, P. *Farewell to reason*. London: Verso:London, 2002, p.100.

As a result, an exceptionally large amount of classical acupuncture prescriptions and elegant treatment strategies, many of them involving prescribing just a single acupuncture point, are currently viewed with suspicion especially because the theories and the language explaining them are far from aligning with any of the modern theories and syntheses. Chinese medicine is kept for treatment, but its language is on the verge of becoming silenced."<sup>81</sup>

Modern acupuncture, when prescribing acupoints such as Du-20 (*Baihui* 百會), EX-HN1 (*Si Shencong* 四神聰) and Ex-HN-20 (*Anmian*安眠), expresses the linear causal thinking that an element A (acupoint) has a direct effect on element B (Brain). Ancient prescriptions as Ren-7 (*Yinjiao* 陰交), instead will use element A (acupoint) to change the system as a whole and by this systemic change, the effect on the element B (Brain) is ascertainable.<sup>82</sup>

As we already mentioned before, prescriptions using the extra points EX-HN1 (*Si Shencong* 四神聰) are modern inventions as is the case with several others<sup>83</sup>, reflecting transformations of the classical principles as "Calming the Shen " (*anshen* 安神) to the new principles as "Calm the Shen and Invigorate the Brain" (*anshen jian nao* 安神健腦) or even further like "Clearing the Du Channel and Replenishing the Spinal Cord"<sup>84</sup>, and

<sup>&</sup>lt;sup>81</sup> Shi-xu Discourse as Cultural Struggle. Hong Kong University Press: Hong Kong, 2007, pp.155-174.

<sup>&</sup>lt;sup>82</sup> Wallner, F. What practitioners of TCM should know. Lang: Frankfurt a.M., 2006, pp.13-55.

<sup>&</sup>lt;sup>83</sup> "Complementary and alternative medicine researchers commonly treat traditional medicines as unchanging systems. Many treatment strategies were invented in the 1960's and betray a strong influence of biomedical thinking." Scheid, V. Traditional Chinese medicine—What are we investigating? *Complementary Therapies in Medicine*, 15(1), 2007, pp.54-68.

<sup>&</sup>lt;sup>84</sup> Gao, X., ren, S. and Wang, P. Acupuncture Treatment of Insomnia by Regulating the Defensive-qi and Strengthening the Brain and the Spinal Cord. *Journal of Traditional Chinese Medicine*, 30(3), 2010, pp.222-227.

all of these new propositions are aligned with the western science discourses and modern theories.

Another important aspect is the syndrome differentiation of TCM that includes a process of analyzing and generalizing holistically the information obtained from the four diagnostic methods (*sizhen* 四診): Inspection (*wang* 望), auscultation and olfaction (*wen* 聞), inquiry (*wen* 問) and pulse-feeling and palpation (*qie* 切).<sup>85</sup> However, as Bob Flaws precisely states:

"Most modern TCM clinical manuals describe this combined summation and analysis in terms of main symptoms (zhu zheng), examination of the tongue (she zhen), and pulse examination (mai zhen). In other words, in clinical practice, patterns are based on three broad groups of information: 1) signs and symptoms, 2) tongue examination, and 3) pulse examination".<sup>86</sup>

An acupuncturist who currently practices TCM in China is inspecting, analyzing and making a good part of their decisions based on item 1 alone, relying on data coming from the results of examinations of biomedical medicine and increasingly minimizing (or even ignoring) a myriad of valuable information that could be obtained from items 2 and 3 clearly showing that there is less and less room for sensitivity in a society such as ours, industrialized to the extreme, dominated by science.<sup>87</sup>

We can also look at this from the point of view that western thought (and culture) fetishizes, and is thoroughly dependent on "science", to the point that the personal experience is simply disregarded if it can't withstand the sanitizing action of "science" and its removal of the subjective experience.

<sup>85</sup> Shi-xu. (2007) Op.Cit.

<sup>&</sup>lt;sup>86</sup> Flaws, B. The Secret of Chinese Pulse Diagnosis. Blue Poppy Press: Boulder, CO, 1995, p.3.

<sup>&</sup>lt;sup>87</sup> Fanon, F. Black skin, white masks. Grove Press: New York, 2008, p.121.

And in the case of TCM, this is a decisive mistake, as Zongjie Wu (et al.) explains:

"To some degree, once a doctor falls into this order of discourse, their knowing will be dominated or framed unconsciously by the power of the genre in which "another's discourse" (positivist discourse), no matter whether he/she likes it or not, is speaking for their thought." <sup>88</sup>

The challenges of reclaiming and maintaining the relevance (or even the existence) of classical forms of diagnosis, prognosis, and treatments within a set of practices that are becoming progressively based (and guided by the interpretations and discourse) on the Western medicine are complex and, at first sight, seem impossible. However, as Friedrich Wallner states: *"there are bridges possible between different incommensurable sciences*".<sup>89</sup>

And according to Steve Woodley this kind of task:

"would require changes in the way Chinese medicine is conceptualized and taught, moving away from outdated notions of vitalism and energetics to a reinterpretation of what the classics really meant by basic concepts such as Qi and channels." <sup>90</sup>

#### Yung Sik Kimp explains that:

"The assumption of a universal pattern of scientific development has also affected studies of the contexts of traditional Chinese natural knowledge; it has done so by stressing those factors which were significant in Western scientific development, as if they had to be the same factors which affected the development of Chinese science."<sup>91</sup>

<sup>88</sup> Shi-xu. (2007) Op.Cit.

<sup>&</sup>lt;sup>89</sup> Wallner, F., Jandl, M. and Greiner, K. *Science, Medicine, and Culture.*: Peter Lang: Frankfurt a.M., 2005, pp.56, 58.

<sup>&</sup>lt;sup>90</sup> Woodley, S. "CCM: Classical Chinese Medicine, or Contemporary Cybernetic Medicine? (2019)". [online] Steve Woodley. Available at: https: //stevewoodley. wordpress. com/2015/07/16/ccm-classical-chinese-medicine-or-contemporary-cybernetic-medicine/.

<sup>&</sup>lt;sup>91</sup> Kim, Y. Natural knowledge in a traditional culture: Problems in the study of the history of Chinese science. *Minerva*, 20(1-2), 1983, pp.83-104.

Volker Scheid points out that:

"Cultural variabilities in the manifestation of illnesses furthermore questions the usefulness of simply importing treatment strategies from China to the West. This leads me to conclude that Chinese medicine as such can never be evaluated by means of clinical research. What we can do is use Chinese medicine as a resource for thinking about illness, and for formulating clinical interventions that may then be assessed using methods of evidence-based research." <sup>92</sup>

A philosophy of science surely can help to build these bridges. Specifically, the Constructivism Realism, and its special method of "Verfremdung" or *Strangification*, provides a useful way of understanding that highlights differences but maintains the principle of equivalence between Western and Chinese medicine.<sup>93</sup>

These efforts to preserve and understand the plurality of discourses and practices that constitute the living body of Classical Chinese Medicine can provide favorable means to a reconciliation of these therapeutic approaches with the modern ones. The best ways to deal with these differences are not based on competitive approaches but, instead, in building bridges that will allow opening up more possibilities for treating several sleep disorders, helping Chinese Medicine students, researchers, therapists and patients to recognize the nuances, subtleties and the complexities of the human being inside its social relations and with the environment.

Friedrich Wallner states that:

<sup>&</sup>lt;sup>92</sup> Scheid, V. Traditional Chinese medicine—What are we investigating? *Complementary Therapies in Medicine*, 15(1), 2007, pp.54-68.

<sup>&</sup>lt;sup>93</sup> Wallner, F. Understanding Traditional Chinese Medicine. Lang: Frankfurt, a.M., 2009, p.37.

In Western philosophy and science, it is very common to claim that there is only one truth. But if we take two (or more) different medical systems into account, then we have to ask whether it is possible that there are two (or more) different, or rather contradictory

and inconsistent truths possible. We have to develop a view of science that encompasses not only Western science.<sup>94</sup>

A "non-Newtonian" research program (theoretical and clinical) for acupuncture should be based on guidelines aligned with the understandings of the fundamental ideas and concepts of Classical Chinese Medicine and avoid falling into tempting traps as "seek universal propositions" and "causes and effects". As we try to demonstrate in this paper, these always results in a narrowing in understanding and also discriminatory practices.

<sup>&</sup>lt;sup>94</sup> Wallner, F. What Practitioners of TCM Should Know. Lang: Frankfurt a.M., 2006, p.17.

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