

Casting Bells and Shaping Needles: Music as a Metaphorical Guide in Classical Chinese Medicine

E. F. Medeiros, F. Lan

Acupuncture and Alternative Therapies Study Center, Sro Paolo, Brazil
The Five Branches University, Santa Cruz & San Jose, USA

Литейные колокола и формовочные иглы: Музыка как метафорическое руководство в классической китайской медицине

Э. Ф. Медейрос, Ф. Лан

Центр изучения акупунктуры и альтернативной терапии, Сан-Паулу, Бразилия
Университет пяти филиалов, Санта-Крус и Сан-Хосе, США

Использование понятий и метафор, возникших в древних музыкальных теориях, является важной их особенностью, которые основывают раннюю практику иглоукалывания в Китае, несмотря на то, что современные учебники ими пренебрегают. В этой статье мы расскажем, как влияли идеи, исходящие из древних музыкальных композиций и теорий, и способствовали формированию дискурса теорий иглоукалывания в Huangdi Neijing «黄帝内经» (HDNJ). Мы сопоставляем музыкальные метафоры и медицинские теории при исследовании желтого колокола (Huangzhong-黄钟), метафоры из важной музыкальной концепции, которая также является древним музыкальным инструментом, и появляется в одном важном фрагменте текста главы 78 HDNJ Lingshu — On the Nine Needles «黄帝内经·灵枢经» «九针论», объясняя выбор числа девять как изначальное количество фигур для классических игл при процедурах иглоукалывания. Приводятся иллюстрации роли древних китайских музыкальных теорий и ее метафор, встроенных в дискурс HDNJ-игры в построении ранних теорий и практик иглоукалывания и китайской медицины.

The use of concepts and metaphors originated from ancient musical theories is an important feature of the theories that base the early practice of acupuncture in China despite being neglected by modern textbooks. In this paper, we highlight how concepts and ideas originated from the ancient musical theories influenced and contributed to shape the discourse of acupuncture theories in Huangdi Neijing «黄帝内经» (HDNJ). We correlate musical metaphors and medical theories when investigating the Yellow Bell (Huangzhong-黄钟), a metaphor from an important musical concept that is also an ancient musical instrument and appears in one important passage of the text of chapter 78 of HDNJ Lingshu — On the Nine Needles «黄帝内经·灵枢经» «九针论» when explaining the choice of the number nine as the primordial number of shapes for the classical acupuncture needles. This exemplifies the central role that ancient Chinese musical theories and its metaphors- embedded in the discourse of HDNJ- play in the construction of the early theories and practices of Acupuncture and Chinese Medicine.

Introduction

Musical ideas and metaphors are abundant in the discourse of early acupuncture theories in HDNJ Suwen «黄帝内经·素问» and Lingshu «黄帝内经·灵枢» and together with metaphors and ideas from the ancient Chinese astronomy, astrology and mathematics/numerology, these elements are important constituents of the fundamental theories that support the practice of classical acupuncture from the ancient times until today.

To understand how ancient Chinese music ideas and metaphors have influenced and shaped the medical discourses and practice of acupuncture and Chinese Medicine in HDNJ, it is necessary to first define briefly

the role(s) of music in ancient Chinese civilization in general.

An Overview of the Manifold Roles of Music in Ancient Chinese Civilization

In ancient China, music was a phenomenon rooted in the natural world and perceived to be central to many natural processes, especially those that involved distant interaction or influence between physically separate realities [1].

At the heart of early Chinese discussions of music therefore was the assumption that there exists a fundamental homology between musical aestheticism, natural process, and ultimately, cosmic harmony [1].

Music was regarded as the essence of the harmony existing between Heaven, Earth and Man—the

all-pervading influence — and was thought essential in achieving harmony and order in the material world. The primary role of music was not to please the senses but to convey eternal truths and make man receptive to these truths [2].

There are two main terms that designate musical sound in ancient Chinese texts: sheng 聲 and yin 音. Most frequently, the term sheng 聲 has been translated as «sound» and «melodies», while yin 音 has been translated as «tone», «voice», and «sound». In Warring States usage, both terms sheng and yin point to a broad range of meanings beyond that of musical tones, sometimes even describing the sounds of humans [3].

Cosmology and Political Implications of Music in Ancient China

Studies on the political significance of music in ancient China agree that music was from the beginning unmistakably linked to politics. Ancient treatises on music and acoustics were always found as parts of political documents, court chronicles, and state protocols [4].

The Chinese also regarded music as an image of the universe and since all things were one in their view, it was assumed that music was also the image of the laws of heaven [5].

The music system was considered a microcosm of the cultural whole, it reflected «the heaven and earth. As a model for the macrocosm, «changes in it and the explanations for these changes serve[d] also as interpretations and explanations for changes in the cultural system considered as a whole» [4].

Music was conceived as being the harmony of Heaven and Earth and li 禮 (ritual, pronounced as L) the order of Heaven and Earth. The theory was that music led to common union, from which issues mutual affection. Li led to distinction and therefore to mutual respect. If mutual affection and respect coexisted to a great extent in the kingdom, stability and peace would be assured [2].

Due to this analogous perception of the relationship between cosmos and music, and of the importance in ensuring harmony in Chinese statecraft, it was vital to every government to keep its music in order. Traditionally, a ruler had therefore to ensure that the correct (zheng) type of music was sounded throughout his country since music could both create and undermine the order of a country. The proliferation of an evil type of music among the people would at first serve the function of a cautionary tale, but could eventually cause a country's downfall [4].

Music, Morality and Ethics in Ancient China

Central to the early Chinese perception of music was the idea that, in addition to being aesthetically pleasing, music provided a moral force for the cultivation of the self as well as a medium through which the sage or ruler-king could radiate his authority over the natural realm and the world of men under his command [1].

With respect to the individual, music was thought to be a primary means of moral and spiritual attainment.

The Classic of Music, the Yueji, which is a chapter in the Book of Rites (Liji) says that music proceeds from the heart of man. The harmony of man's heart then produces harmony of the breath and the harmony of the breath produces that of the voice. The voice is the expression of harmony between heaven and earth. [In The Light And Shadow].

The Influence of Music in Discourse Huangdi Neijing «黄帝内经»

Musical ideas and metaphors can be seen directly or indirectly all over the text of both HDNJ Su Wen «黄帝内经素问» and Lingshu «黄帝内经灵枢». From very fundamental discussions and theories to much more complex elaborations of Chinese medicine we can find entire chapters discussing sounds or using musical metaphors as Suwen (素问), chapter 5 «阴阳应象大论»:

«among the depots it is the spleen; among the colors it is yellow; among the tones it is gong; among the voices it is singing; among the movements [indicating] changes it is hiccup; among the orifices it is the mouth; among the flavors it is sweet; among the states of mind it is pensiveness» [6].

The five musical scales are made up of five pitches of the ancient Chinese five-tone scale and relative to the 5 movements (Wu Xing 五行). Five Movements (Wu Xing 五行) and Yin-Yang are important and fundamental constituents of Chinese Medicine theories.

The text of HDNJ describes and discusses the theory of 5 movements (Wu Xing 五行) defining correlations between multiple aspects of nature in correspondence with the different aspects of the human being (anatomy, physiology, psychology, social life, etc) and, among the many characteristics and qualities described for each of the five movements there are five basic pitches each one related with one of the five movements as stated in Lingshu Chapter 44 (The Qi Moving in Accordance with the Norms Divide a Day into Four Time Periods «順氣一日分為四時».

The terminology of five pitches as a metaphor of the Five Movements is extensively used in the entire text of chapters 70 and 71 of Suwen (素问) and chapters 63, 64 and 65 of Lingshu.

Suwen chapter 70 — Comprehensive Discourse on the five regular Policies «五常政大論» and Suwen chapter 71 «六元正紀大論» do Suwen explains an intricate and complex web of relationships between different periods of time (years) which are described as the basis of the five sounds system. Suwen chapter 71 Comprehensive Discourse on the Policies and Arrangements of the Six Principal [Qi] «六元正紀大論» is even much broader as it also correlates multiple aspects of nature with different parts and functions of the human body. Lingshu, chapter 63 — On Flavors «五味论» deepens the use of musical metaphors in HDNJ correlating the different types of human beings with 5 musical notes and the five flavors.

Expanding this discussion Lingshu chapter 64 - The Yin and Yang [Categorization] and the 25 Human [Types] «阴阳二十五人», features twenty five different types of human beings, each of which is primarily presented in correlation or «resonance» with a specific musical note. The chapter 65 of Lingshu - Five Tones, Five Substances «五音五味» describes specific treatments (including a specific food combination) to each one of these different human body types previously described.

These chapters are clear examples that illustrate how the musical metaphors deeply influenced and shaped the discourse and ideas exposed in the text HDNJ.

The fundamental theories and discussions about the practice of acupuncture in HDNJ also feature terms related to music. For example, Lingshu chapter 78 — On the Nine Needles «九针论» describe the functions of acupuncture needles Pizhen 铍针 and Yuanlizhen 员利针 using musical metaphors. Pizhen 铍针 (acupuncture needle number 5) is correlated with the 5 sounds and Yuanlizhen (acupuncture needle number 6) 员利针 with the 6 tones.

The Huangzhong (黄钟 — Yellow Bell), and The Construction of the Theory of the Nine Types of Acupuncture Needles in HDNJ

The Huangzhong (黄钟 — Yellow Bell), a term that appears only once in this moment in the entire text of HDNJ is a concept originated from the ancient Chinese theories about music and harmonic mathematics.

In Ancient Chinese Musical Theory, Huangzhong (黄钟 — Yellow Bell), is the first of the twelve tones. It is generally considered the fundamental tone and its pitch being the basis for generating all other tones [7].

The term Huangzhong (黄钟 — Yellow Bell), appear only one time in the entire text of HDNJ, in chapter 78 of Lingshu — On the Nine Needles «九针论», as a metaphor that emerges when the text explains the reason why the acupuncture needles have 9 primordial shapes [8].

The Mythological Origins of the Huangzhong (黄钟 — Yellow Bell) the Chinese Myth of Creation of Music

The oldest texts about the creation of the pitch-pipes, Guanzi 管子 (chapter Diyuan 地圆) and Lishi chunqiu 吕氏春秋 (chapter Guyue 古乐), narrate how Ling Lun 伶伦, a minister of the Yellow Emperor 黄帝, created the Yellow Bell Pipe 黄钟, and on the base of its size, calculated the dimensions of a whole set of twelve bamboo pipes [9].

It is also remarkable how Huangzhong functions as a metaphor of the centrality and authority imagined and represented in many discourses of Ancient China. This idea of centrality was expressed very early in Chinese texts like Liji «礼记».

In ancient China percussion music (mostly bell and drum) was ritualistic: via music, one communicated with

the ancestors, and via music the ruling families reified authority—two activities not unrelated. The fact that bells were often used to start a musical performance and that this was considered a «powerful act of just authority» further ties the musical references to the symbolic meaning of the king's journey» [10]. As already pointed before, the Huangzhong pitch refers to the fundamental pitch on which all the other pitches in the bell set are calculated, and which is to be produced by a bell that have the same name of the pitch: The Huangzhong bell. All the other bells in the set (usually sixteen) are then built accordingly [11]. For this reason it is possible to think that Huangzhong also symbolizes authority and orthodoxy.

The Huangzhong (黄钟 — Yellow Bell) as a Metaphor in Ancient Chinese Cosmology

The metaphorical use of Huangzhong in the theory of the Nine Types Acupuncture Needles (九针) in Lingshu, chapter 78- On the Nine Needles «九针论» seems to be inspired by the cosmological and numerological approaches and models widely used in early China. In this direction, we can point that chapter 78 of Lingshu «九针论» has some textual similarities with «The Treatise on the Patterns of Heaven» «天文训», chapter 3 of Huainanzi «淮南子» [12].

The Shiqi (1st c. B.C.) states «when numbers assume form, they realize themselves in musical sound». The stars, the planets, the seasons, all produce sound. The sounds issue harmony, and that creates accord. From this harmonious accord was born music, set down by the sage rulers [13].

In the perspective of the Ancient Chinese, this same reasoning can also be applied for the human body and the practice of medicine because it represents a micro-cosmos.

Knowing when (and when not) to perform acupuncture and cauterization on a patient was a matter of concern to the physician authors of the Inner Canon. Without foresight and careful planning, the insertion of needles was a risky business.

When passages from the Inner Canon are placed in a context that includes the newly excavated manuscripts, we see the symbiotic connections between medicine and divination, and between physicians and diviners. Physicians mined astrological, calendrical, and hemerological systems for theory, just as in their treatment of patients they mimed the diviners with their predictions [14].

Conclusion

Metaphors play an important role in discursive constructions in the early Classical Chinese Medicine, functioning as a crucial conduit between medical theories and the peculiarities described in texts of different fields of knowledge (Astrology, Music, Mathematics, Calendar, etc), preparing the field for the construction of the microworld of Chinese medicine described in Huangdi Neijing [15].

They are also essential to the expression and transmission of Chinese medical theories. For these reasons, metaphors are ubiquitous in Chinese medical language,

ranging from single words to phrases, sentences, and concepts too. They reflect how the basic Chinese medical concepts and theories were formed, stated, and constructed, and how Chinese medicine has developed (and been transmitted) for centuries.

The Chinese medicine has a metaphor system as its underlying structure [16], where all core concepts and theories in its discourse are expressed, including the theories of essential qi, yin-yang, and five phases that explains physiological functions and pathological changes of human being, and also guide the diagnosis and treatment of diseases in the clinical practice; the visceral image system that explain the functions of Zang Fu organs; the inference from the flow of Qi and Blood to expound the physiology of Yang Qi; the Jing-Luo (Vessels) theory to elaborate the amount of Yin, Yang, Qi and Blood in different meridian-vessels; the theories of etiology and pathogenesis to interpret the onset and development of diseases; and the therapeutic system to interpret the actions of acupoints and medicines, thus determining principles and methods of treatment [5].

What maintains life was not merely the internal circulation of Qi but a continuous, rhythmic interchange between body and cosmos: «Covered over by heaven, borne up by earth, among the myriad things none is nobler than man. Man is given life by the Qi of heaven and earth and grows to maturity following the norms of the four seasons» [17].

As we discussed before, the State order was not just implicated through the correct use of music; indeed, the entire movement of the cosmos could be affected through it [3].

Hence, if the Yellow Bell was no longer in tune, the state would eventually fall into demise, for no longer would harmonic music depict and reflect harmonic government [4].

The ancient cosmology upon which Chinese medicine rests, articulates reality as a complex system of interacting processes. This cosmology sees the world not as primarily mysterious, but as an intelligible continuum [18] where virtually all the phenomena of the human body are dependent and influenced by time and cosmic rhythms.

Perhaps, the concept of Harmony (和) is the best example to understand how musical metaphors shaped the construction and transformation of certain forms of ethical cosmology, serving as the primary means by which notions of the taboo were built and styles of music were contested but lately becoming enmeshed in a larger discourse on man's physico-spiritual, or medical, relationship to the cosmos) [3].

The same reasoning could be valid to the human being lifestyles, and the experience of health and disease. Human body and mind also need to be constantly «tuned» (Тнао 调) and «rectified» otherwise patterns of disharmony/syndromes (Zhen/证) will manifest in body/mind as illnesses. Following this same reasoning, the disease and the experience of illness could be expressed metaphorically as «a music being played out of tune» and Chinese Medicine treatments aim at repositioning of the human being

within the space and temporal rhythms (like seasons, changes of weather) where the changes emerge during the course of the 4 seasons.

Because the human body is represented and understood as a micro-cosmos, the permeability of its boundaries was an extremely important issue to physicians. The Qi that fills the universe fills the body as well and since ancient times [it has been understood that] penetration by [the Qi of] heaven is the basis of life, which depends on [the universal Qi of] yin and yang. The Qi [of everything] in the midst of heaven and earth and in the six directions, from the nine provinces and nine bodily orifices to the five visceral systems and the twelve joints, is penetrated by the Qi of heaven.

The body may fail by admitting substances that harm it, by keeping out those that it needs, by letting its own vital substances leak out, or by not excreting what it should. Because the Qi circulation is fundamental not only to the body's growth but to its main tenancy, irregularities in it are responsible for pain and disease. Somatic blockages are analogous to failures of circulation in the universe and the state [17].

The concept of the Nine Types of Acupuncture Needles in HDNJ as any instrument and tool (Qi 器 / Ju 具) in ancient China itself represents and incorporates several reflections and thoughts from its primary conception to purely technical issues (manufacturing methods, method of use, etc) [19].

Why nine basic needle shapes instead of any other number (e.g. 3, 5, 8) that the Chinese Numerology also considers meaningful and «auspicious»? In Lingshu chapter 78 — On the Nine Needles «九针论» we observe that this choice of the number nine to represent (or embody, or even empower [20]) the basic shapes of acupuncture needles complies with the ancient cosmological and musical views that pave the road on which all the discourse of Chinese Medicine flows in the texts that compose the HDNJ. The Huangzhong (Yellow Bell), a concept originally from ancient Chinese musical theory, emerges from HDNJ to provide a numerological reason for the choice of nine as the number to represent (empower) the basic shapes of acupuncture needles.

Huangzhong is an antique musical instrument prepared from bamboo with a length of 9 inches. Each inch-length covered the length of 9 millet grains. Hence, the 9 inches extended over the length of 81 millet grains. Therefore the nine 'needles correspond to these numbers' means: [their use] corresponds to very many changes. They can be adapted to numerous diseases [21].

Huangzhong, also functions as a metaphor of centrality and authority with the special role of positioning and putting focus on the Human Being as central element inside of this much wider «web of metaphors» [22] that includes (and is dependent on) time(s), rhythm(s) and measures.

The influence of music in the theories and practices of Chinese Medicine is surely wider than what is shown in this paper but of central importance is to view these discussions of music and medicine in terms of the more fun-

damental, cosmic notions of balance and harmony that underpinned both realms of knowledge. Understanding that music was often chosen to be the exemplar or representative manifestation of the harmonious cosmos itself makes comprehending how bodily systems, morality, social and state order, and cosmos intersected in essential ways an easier task. We get that much closer to a comprehensive understanding of both discourses on ancient Chinese music and early imperial spiritual orientations regarding human relationship to the cosmos [3].

This intricate web of relations also reflects a persistent argumentation in the theory and model of practice of acupuncture in HDNJ that stresses awareness of the practitioner to phenomena that are beyond the patient's body boundaries but exerting influence decisive for the success or failure of a treatment, as we can see in chapters 9 and 73 of *Lingshu*.

Examining the metaphors applied to and inspired by the body in the different times provides us with a way of bridging some of the difficulties encountered in combining anthropological and historical approaches. Metaphor analysis allows us to transcend the simple ob-

servation. Instead, rather than becoming sidetracked by intricate details of ethnoscience, we can focus on how the particular virtues of the framework of analysis embedded in early Chinese medical theory have contributed to the continuing relevance of Asian medical ideas in modern settings worldwide [23].

Acupuncture practice discourse, and here we include all kinds of metaphors and not only those ones coming from the music realm. A deep understanding on the nuances of the acupuncture discourse in HDNJ certainly has the potential to support innovation, improvements and developments that could result in (much needed) improvement in the design of specific scientific models and more balanced and less culturally biased research in acupuncture, making the experimental findings and conclusions more reliable and consolidated (as well as supporting analysis and critical studies) in the light of modern science.

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Информация об авторах:

Эфраим Ферейра Медейрос — доктор медицины, профессор Центра изучения акупунктуры и альтернативной терапии, Сан-Паулу, Бразилия

Фенгли Лан — научный сотрудник Университета пяти филиалов, Санта-Крус и Сан-Хосе, США

Ephraim Ferreira Medeiros — MD, Professor, Acupuncture and Alternative Therapies Study Center, Sro Paolo, Brazil,
E-mail: ephra@hotmail.com

Fengli Lan — Sknior researcher, the Five Branches University, Santa Cruz & San Jose, USA