

'A Thousand Changes and Ten Thousand Transformations': Individualising Illness in the Northern Song (960-1127)

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Abstract

The history of 'pattern differentiation as the basis for determining treatment' (*bianzheng lunzhi* 辨證論治) or, conceived more broadly, 'individualisation of treatment' in Chinese medicine has become an important topic among both clinicians and medical historians. This article contributes to that discussion by describing Northern Song physicians' worries about and methods of approaching the problem of the complexity of illness. It concludes with a suggestion for a new way of conceiving of the history of this important aspect of modern Chinese medical practice.

The Song dynasty (960-1279) has long been recognised as a watershed in the social, economic and intellectual history of China. Over the course of the last two decades, a similar appreciation for the pivotal role of the Song in Chinese medical history has also emerged. One of the most important changes that began in this period was an increasing elite interest in and practise of medicine.¹ As an increasing number of elite men took up medicine as a career, and not merely an avocation, they brought specifically elite points of view and practices with them, transforming Chinese medicine in ways that are still visible today. One of the concerns they brought with them was a deep apprehension regarding the complex, ever-changing nature of illness—and physicians' ability to deal with it.

Worrying about the Variability of Illness—and the Incompetence of Doctors

The opinions of Wang Gun (王袞, fl. 1047-1082) are typical of the Northern Song elite's feelings regarding medicine and its practitioners. Wang reports that while traveling together his father grew ill and ultimately died at the hands of an incompetent physician.² Wang concluded that:

Thus, people's illnesses being many and varied, the Way of medicine also cannot be grasped by means of one path alone ... Those who are ignorant of the Way [of medicine], do not meticulously grasp the symptoms. When using [medicine] clinically, they are always mistaken.³

然人之疾狀多端，醫道又不可一途取也... 昧於道者，乃不詳其證候，迨乎臨用，有誤十全。

Shi Kan (史堪, late 11th-early 12th c.) gave a more specific critique, but his worries were still focused on doctors' inability to cope with the variability and complexity of illness:

Of old, people had a saying, 'For the first two days, [the illness] is in the skin. By the fourth or fifth days, it has transmitted to the organs.' Therefore, when it is in the skin one can promote sweating; when it has transmitted to the organs, one can purge. Among those who today study [medicine], there are none who do not revere this as a fixed doctrine. Thus they do not realise that just as there are people who are vacuous or replete, so there are illnesses which are mild or severe; just as there are illnesses that are mild or severe, so there are transmissions which are slow or fast ...⁴

古人有言 '一日二日在於皮膚，四日五日傳之藏府' 故皮膚之間可汗，傳藏府之間可下。世之學者未嘗不宗之為定論。然不知人之有虛實則病之有輕重，病之有輕重則傳之有遲速 ...

In addition to their anxiety regarding the intricate character of illness, another factor that united Northern Song medical authors was their conviction that the problem did not lie with medicine as a body of knowledge and practice but rather with the physicians of their day, who practised medicine incorrectly. 'The Way of medicine' may be difficult, but if it is learned and applied properly, it will be effective. How then

did these authors understand complicated, highly variable illnesses?

Grasping Complexity in Illness

Physicians of the Northern Song recognised a wide variety of factors that contributed to the protean nature of illness. Ranging from environmental factors to characteristics of the patient and the illness themselves, these factors both explained variation in illness and demanded adaptability in treatment.

The seasons were among the most frequently cited causes of variability in illness, particularly in discussions of cold damage. Both the *Huangdi neijing* (Yellow Emperor's Inner Classic 黃帝內經) and the *Shanghan lun* (Treatise on Cold Damage 傷寒論) saw cold damage as a broad rubric including not only cold damage proper, but also warm disease (*wenbing* 溫病) and summerheat (*shu* 暑). All of these diseases were attributed to damage from cold during the winter that either immediately produced illness or lurked inside the body where it transformed into heat and manifested as an illness in the spring or summer. Throughout the Northern Song it was generally held that the formulae contained in the *Shanghan lun* were intended only for cold damage proper, which appeared in winter, and not for warm disease or summerheat.⁵ This led several authors to develop new formulae or find older formulae to supplement this deficiency. Han Zhihe (韓祇和, fl. late 11th c.), author of the oldest surviving text devoted exclusively to the *Shanghan lun*, went so far as to include seasonal variations for almost all of the formulae included in his book:

If the patient's pulse on both wrists is sunken and slow, moderate or tight, these are all cases of cold in the stomach. From Establishing Spring⁶ to Pure Brightness,⁷ it is appropriate to use *Wenzhong tang* (Warm the Middle Decoction). From Pure Brightness to Sowing Grain,⁸ it is appropriate to use *Jupi tang* (Orange Peel Decoction). From Sowing Grain to Establishing Autumn,⁹ it is appropriate to use *Qiwu lizhong tang* (Seven-Ingredient Regulate the Middle Decoction).¹⁰

病人兩手脈沈遲，或緩或緊，皆是胃中寒也... 若立春以後，至清明以前，宜溫中湯主之。清明以後，至芒種以前，宜橘皮湯主之。芒種以後，至立秋以前，宜七物理中丸主之。

Han's particular system for dividing the seasons was not adopted by any other author, but two other cold damage authors, Zhu Gong (朱肱, late 11th-early 12th c.) and Pang Anshi (龐安時, 1042-1099) both provided seasonal formulae, albeit with less consistency than Han.¹¹

Another form of environmental variability, which linked seasonal variation and calendrical cycles, ultimately became the most popular way of understanding the influence of climate on health and illness: the five

movements and six *qi* (*wuyun liuqi* 五運六氣), often referred to simply as 'movements and *qi*' (*yunqi* 運氣).¹² This doctrine, which had its roots in the *Neijing*, linked together the movements of the five phases (*wuxing* 五行), the development and decline of *yin* and *yang* as described by the 'three *yin* and three *yang*,' and the sixty-year calendrical cycle created by pairing the ten heavenly stems (*tiangan* 天干) and the twelve earthly branches (*dizhi* 地支). Starting with the particular stem and branch of a given year, a series of correspondences and calculations allowed one to determine the quality of the *qi*—cold, wind, heat, fire, damp or dryness—that would dominate in a given period of the year. In spite of complaints about overly mechanistic uses of the system, it was popular during the Northern Song for a wide variety of applications.¹³ In medicine, the system was used to predict the type of illness that would predominate in a given year and to assist in diagnosing and treating it.¹⁴ The system of movements and *qi* had three advantages over the simpler analysis of seasonal variation in illness, which may explain its ultimate success. First, its complexity as a doctrine gave it greater explanatory flexibility. Not only could it explain the variability of illness during different seasons, it could also explain why the seasons and their associated illnesses were not always the same from year to year. Second, the relationships among the five movements—which were identical to those among the five phases—gave the system greater dynamism. Seasonal variability alone could not explain the transformations that occurred during the course of an illness. In skilful hands, the system of movements and *qi* could do so. Finally, it had roots in the *Neijing* and was seen as having connections to the *Shanghan lun*,¹⁵ giving it the pedigree of antiquity.

Differences in geography were another way of understanding the impact of the external environment on illness. Pang Anshi associated different illnesses with the north and south and with mountainous and flat land:

In the south there are no places [covered in] snow and frost; therefore, people are not struck by cold *qi*. The *qi* of the earth is not contained, and vermin discharge toxin. Mists and miasmas [cause illnesses] that occur episodically. These are not covered by this method. There are separate formulae for their treatment. Furthermore, within a single prefecture, there are mountain dwellings that are the abode of accumulated *yin*. At the height of summer, the snow freezes. The climate is cold, and [people's] pores are sealed, so it is difficult for an evil to harm them. These people are long-lived, and the sick among them mostly [suffer from] wind-strike and cold-strike illnesses. There are also flatland dwellings that are the abode of accumulated *yang*. At the height of winter, plants still grow. The climate is warm, and [people's] pores are lax, so it is easy for an evil to harm them. These people are short-lived, and the sick among them mostly

[suffer from] damp-strike and summerheat-strike illnesses.¹⁶

南方無霜雪之地，不因寒氣中人，地氣不藏，蟲類泄毒，嵐瘴間作，不在此法，治別有方也。又一州之內，有山居者為積陰之所，盛夏冰雪，其氣寒，腠理閉，難傷於邪，其人壽，其有病者多中風中寒之疾也。有平居者為居積陽之所，嚴冬生草，其氣溫，腠理疏，易傷於邪，其人夭，其有病者多中濕中暑之疾也。

As noted above, Pang made reference to seasonal variation as well.¹⁷ Seasonal and geographic influences on illness were not, therefore, mutually exclusive. Combined, these environmental influences alone could therefore greatly complicate the presentation of any given illness.

Apart from the external environment, however, the internal environment of the patient and the character of the ailment itself were potential sources of variability and complexity in illness. One of the earliest extant descriptions of this type of variability is found in Shen Gua's (沈括, 1031-1095) enumeration of the 'five difficulties' (*wunan* 五難) of treating illness:

Nowadays those who examine ill [people] only inspect the six pulses of the *qi* opening and nothing else. In ancient times those who inspected ill [individuals] had to investigate their voice, facial colour, movements, skin texture, emotions and preferences. They inquired into what the patient did [for a living] and investigated the patient's activities. Having already obtained the better part [of what they needed to know], they then thoroughly diagnosed the welcoming people (*renying*) [pulse], the *qi* opening (*qikou*) [pulse], and the twelve vessels. If the illness occurs in the five viscera, then the five colours will correspond to it, the five sounds will change in accord with it, the five tastes will incline to it, and the twelve vessels will move according to it. They sought the illness with this sort of thoroughness, but they still feared lest they lose it. This is the first difficulty: differentiating illnesses.¹⁸

今之觀疾者，惟候氣口六脈而已。故之觀疾，必察其聲音、顏色、舉動、膚理、情性、嗜好，問其所為，考其所行，已得其大半，而又砭診人迎、氣口、十二動脈。疾發於五臟，則五色為不應，五聲為之變，五味為之篇，十二脈為之動。求之如此其詳，然而猶懼失之。此辨疾之難，一也。

Shi Kan gave similar, but not identical, advice:

Therefore, those who are good at practising medicine must, once an illness has appeared, first investigate its source, determine how it was transmitted and contracted, scrutinise its punishment and conquest [according the five phases],¹⁹ distinguish its coolness and heat, coldness and warmth, differentiate whether it is above or below, interior or exterior, whether the true

[*qi*] or the evil [*qi*] predominates, whether it is vacuous or replete ... Each of these has its standard and one cannot err in the slightest.²⁰

故善為醫者，一病之生，必先考其根源，定其傳授，審其刑剋，分其冷熱寒溫，辨其上下內外，有真有邪，有虛有實... 各有其常而不可差之分毫也。

Writing slightly later, Kou Zongshi (寇宗奭, fl. early 12th c.) included a more systematic discussion of this problem in the preface to *Expanded Meaning of the Materia Medica* (*Bencao yanyi* 本草衍義, 1116, published 1119):

In treating illness, there are eight essentials. If the eight essentials are not carefully examined, the illness cannot depart. It is not that the *illness* does not depart, but that [*the doctor*] lacks the skill to be able to expel it. Therefore, you must carefully differentiate the eight essentials, so as to make no mistakes. The first is vacuity: this is the five vacuities. The second is repletion: this is the five repletions. The third is cold: this is the organs contracting accumulated cold. The fourth is heat: this is the organs contracting accumulated heat. The fifth is evil [*qi*]: it is not an illness [generated by] the organs themselves. The sixth is correct [*qi*]: it is not [an illness caused by] the attack of an external evil. The seventh is internal: the illness is not on the exterior. The eighth is external: the illness is not in the interior.²¹

夫治病有八要，八要不審，病不能去。非病不去，無可去之術也。故須審辨八要，庶不達誤。其一曰虛，五虛是也。二曰實，五實是也。三曰冷，臟腑受其積冷是也。四曰熱，臟腑受其積熱是也。五曰邪，非臟腑正病也。六曰正，非外邪所中也。七曰內，病不在外也。八曰外，病不在內也。

Similar statements can be found in the works of Zhu Gong, Xu Shuwei and many other Northern Song elite physicians.²² Pang Anshi saw internal variability as rooted in part in very physical differences between individuals:

People's five viscera can be large or small, firm or brittle, established correctly or leaning askew. The six bowels can also be large or small, long or short, thick or thin, relaxed or tense. [These differences] cause a person to frequently have a particular illness for their entire life.²³ 人五臟有大小、高下、堅脆、端正偏傾。六腑亦有大小、長短、厚薄、緩急，令人終身常有一病者。

Regardless of how it was conceived, patients' individual characteristics were seen as a major factor interacting with external influences in the formation of illnesses. These two broad sources of variability combined to give illness its protean character.

Treating Complex Illnesses

Developing treatment strategies for complex illnesses

was more difficult than analysing the causes of that complexity. Two main approaches emerged. The five-viscera approach drew on the *Neijing's* discussions of the functions, pathologies and diagnosis of the five viscera (*wuzang* 五臟) to classify illnesses and determine appropriate treatments. The cold-damage approach drew on the text of the *Shanghan lun* as scripts guiding diagnosis and treatment. Throughout the Northern Song, these two approaches remained essentially separate; the five-viscera approach was used in treating miscellaneous diseases (*zabing* 雜病) and the cold-damage approach was used in treating cold-damage (*shanghan* 傷寒) in its broadest sense.²⁴ In later periods, however, this boundary would break down completely.

The five-viscera approach has only one surviving exemplar from the Northern Song, Qian Yi (錢乙, ca. 1035-1117). Though Qian is now generally remembered for his work on children's medicine, he was a highly influential pioneer of the five-viscera approach. Qian's lone extant book, *Xiao'er yaozheng zhijue* (*Straightforward Guidance on Medicinals and Patterns for Children* 小兒藥證直訣, actually compiled by an admirer after Qian's death) opens with a list of the five viscera and the signs and symptoms that are present when a given organ is replete or vacuous:

The spleen governs fatigue. If it is replete, [the patient] will sleep heavily, the body will be feverish, and [the patient] will drink water. If it is vacuous, there will be diarrhoea and vomiting, and wind will be generated.²⁵
脾主困。實則困睡，身熱飲水。虛則吐瀉，生風。

These five basic patterns of illness—and their treatment—were complicated by the mutual influence of the five viscera:

... When the liver is strong and conquers the lungs and the lungs are weak and cannot conquer the liver, you should supplement the spleen and lungs and control the liver. Assisting the spleen is a case of the mother causing the child to be replete. To supplement the spleen, [use] *Yihuang san* (Assist the Yellow Powder). Treating the liver is governed by *Xieqing wan* (Drain the Green Pill).²⁶
... 肝強勝肺，肺怯不能勝肝，當補脾肺治肝。益脾者，母令子實故也。補脾，益黃散。治肝，瀉青丸主之。

Even the names of Qian Yi's formulae emphasise the importance of the five viscera and five phases. Yellow (*huang* 黃) is the colour of earth and the spleen, and green (*qing* 青) is the colour of wood and the liver. The names of the formulae thus explicitly state their function. Even when Qian used the disease-name differentiation of illnesses that had been important before the Song, he typically divided the disease into five sub-diseases, each caused by one of the five viscera. Regarding the seizure disorder known as *xian* 癲,²⁷ Qian informs us, 'As for the five *xian*, you treat

them according to the respective viscera.' (凡五癲，皆隨藏治之).²⁸ Likewise, of sores and rashes (*chuangzhen* 瘡疹) he says, 'The five viscera each have a pattern.' (五藏各有一證).²⁹ In so doing, he inverted the structure of texts like *Qianjin yaofang* (*Essential Formulae Worth a Thousand Gold* 千金要方) and the *Zhubing yuanhou lun* (*Treatise on the Origins and Signs of Diseases* 諸病源候論). In those books, the viscera were used to name entire sections of the text within which diseases associated with that viscus were grouped. In Qian's work, the viscera serve as subdivisions of a given disease.

What is most striking about Qian Yi's system for diagnosing and treating miscellaneous diseases is the degree to which it was a creation *ex novo*. Although there was no shortage of doctrine and formulae scattered in the pre-Song sources, this material was neither systematic in its theories nor comprehensive in its clinical scope. In order to deal with the potentially infinite variability of illness, Qian Yi had to rework this material so that it could explain any given illness and offer guidance on its treatment. This lack of development is apparent in the comparative simplicity of Qian's system. Nevertheless, it was ultimately very influential: Zhang Yuansu (張元素, fl. late 12th-early 13th c.) and his students Li Gao (李杲, 1182-1251) and Wang Haogu (王好古, ca. 1200-1265) expanded and modified it, and through them many of Qian Yi's ideas and formulae became widely known and accepted.

By contrast, the cold-damage approach possessed, in the *Shanghan lun*, an abundance of explicit guidance on the clinical management of complicated, highly mutable illnesses. The importance of this difference was recognised by Northern Song writers, as seen in Zhang Lei's (張耒, 1054-1114) postface to Pang Anshi's *Shanghan zongbing lun* (*Treatise on All Types of Cold Damage* 傷寒總病論):

Why is it that the excellent physicians of the past did not prepare formulae? ... Only Zhongjing's *Treatise on Cold Damage* both discusses illnesses and prescribes formulae. The details are certainly complete. It also describes the method of increasing or reducing [the quantity of medicinals] and adding or removing [medicinals].³⁰
古之良醫，皆不預為方何也 ... 惟仲景《傷寒論》論病處方，纖悉必具，又為之增損進退之法 ...

The *Shanghan lun* is composed of separate lines, each of which describes a particular clinical situation. Many, but not all, of these lines end with a recommended formula:

In cold damage, when the pulse is slippery and there is reversal[-cold of the extremities], there is heat in the interior. *Baihu tang* (White Tiger Decoction) governs it.³¹
傷寒，脈滑而厥者，裏有熱。白虎湯主之。

In essence, the *Shanghan lun* was a collection of ready-made clinical scripts, including information on

diagnosis, prognosis and treatment method. In the Song imperially-printed edition, all of the lines that included a recommended formula were gathered together at the beginning of each chapter in a numbered list of 'methods' (*fa* 法).³² These methods were the most valued part of the *Shanghan lun*, and the fact that it contained methods and not merely formulae appears to have led to a truism among physicians, reported (disparagingly) by Wang Haogu, that in treating cold damage there were methods, but in treating miscellaneous diseases there were only formulae (*fang* 方).³³

As seen in Zhang Lei's comments, Northern Song authors particularly valued the extreme detail of the *Shanghan lun*'s clinical advice. They highlighted this detail in their texts about cold damage. Xu Shuwei, who wrote more texts on cold damage than any other author of this period, used his case records to illustrate the importance of these details. In explaining one of his clinical decisions he notes:

For the skilled observer, the outer reveals the inner, completely and faithfully.

The seventh pattern³⁴ [in the fifth chapter of the *Treatise*] is that [after] promoting sweating, the sweat leaks out incessantly and urination is difficult. The sixteenth pattern [in that chapter] is spontaneous sweating and frequent urination. Thus, if there is a small difference in the numerous signs [presented by the patient], Zhongjing changes the method by which he treats him. Therefore, you must be precise regarding [medicinal] decoctions.³⁵

蓋第七證則為發汗漏不止，小便難，第十六證則為自汗，小便數。故仲景於諸證候紛紛小變異，便變法以治之，故於湯不可不謹。

Zhu Gong structured his book as a list of one hundred questions about cold damage and within each question presented long lists of possible variations and how to treat them:

You should investigate whether there is or isn't sweating in order to distinguish between hard tetany³⁶ and soft tetany. If there is no sweating, *Gegen tang* (Kudzu Root Decoction) governs it. If there is sweating, *Guizhi jia gegen tang* (Cinnamon Twig Decoction with Kudzu Root) governs it.³⁷

當察有汗無汗，以分剛痙柔痙，無汗葛根湯主之，有汗桂枝加葛根湯主之。

Zhu's distinction between hard and soft tetany and his choice of formulae were derived directly from the *Shanghan lun*.³⁸ Much of Zhu's text consists of similar statements—often paraphrasing the *Shanghan lun* itself—emphasising the diversity of cold damage illness and the need for precise diagnosis and treatment.

Individualised Medicine and the Chinese Medical Tradition

Literature on Chinese medical history today is characterised by two diametrically opposed views. In works aimed at non-specialist readers and practitioners, Chinese medicine is typically presented as a timeless tradition that has remained essentially unchanged for two thousand or more years. In scholarly literature, however, it is often presented as a highly discontinuous tradition with many breaks and divisions and little continuity. The first view is undeniably historically inaccurate and orientalist, but the second view is not without problems. While change is clearly visible throughout Chinese medical history, so is continuity. Authors writing in the Qing (1644-1911) responded meaningfully to texts from the Northern Song. The same issues were debated and re-debated across centuries. Most tellingly, Chinese medical practitioners today still read texts written hundreds of years ago and find them not only comprehensible but also clinically relevant. Such evidence of continuity demands explanation.

I have argued elsewhere³⁹ that from the Song onward Chinese medicine as practised by the elite social stratum was a cultural tradition united by a central problematic and approach to resolving that problematic. The arguments for selecting the Song as the starting point of this tradition go beyond the scope of this article, but the central problematic I identified was the complexity and mutability of illness, and the key approach to resolving this difficulty was the individualisation of treatment. So long as this problem and that solution remain central to Chinese medical practice, the cultural tradition that formed in the Song continues to thrive.

The problem of recognising an illness in the midst of clinical complexity is naturally at the heart of all forms of diagnosis in all forms of medicine. While some folk traditions of healing make do with a very small repertoire of diagnoses, all of the literate or scholarly medical traditions have embraced more complicated understandings of illness. Nevertheless, the particular conception of complexity seen in Chinese medicine has distinctive characteristics with deep roots in Chinese culture. In his discussion of the foundations of Chinese literary thought, Stephen Owen begins with two passages from the Confucian classics that were generally taken as basic principles of reading and interpretation:

He said, 'Look to how it is. Consider from what it comes. Examine in what a person would be at rest. How can a person remain hidden?—how can someone remain hidden?'⁴⁰

子曰：'視其所以，觀其所由，察其所安，人焉廋哉，人焉廋哉？'

[Gongsun Chou asked,] 'What do you mean by "understanding language"?'

[Mencius replied,] 'When someone's words are one-sided, I understand how his mind is clouded. When someone's words are loose and extravagant, I understand the pitfalls into which the person has fallen. When someone's words are warped, I understand wherein the person has strayed. When someone's words are evasive, I understand how the person has been pushed to his limit.'⁴¹

何謂知言？'

誠辭，知其所蔽，淫辭，知其所陷，邪辭，知其所離，遁辭，知其所窮。'

Owen observes that there is a particular hermeneutic implicit in these passages. There are inner and outer truths and the inner may be misunderstood by observing the outer. But proper observation of the outer will grant access to the inner. The inner is revealed through the outer in a process of manifestation. The outer can therefore conceal the inner only if the observer is not properly trained. For the skilled observer, the outer reveals the inner, completely and faithfully.⁴² In such a worldview, the goal of the observer was to uncover the particular circumstances revealed through a given outer manifestation—the particular character of a person speaking, the particular circumstances in which an author wrote a poem, or the particular nature of a given instance of illness. From the Song onwards, elite, well-educated physicians brought this point of view with them as they studied and practised medicine. This was the form of complexity that vexed them and the quality of observation they hoped would recognise in it the underlying particularity of the illness. They sought to see through the outer manifestations of illness not in the sense of 'seeing past' them, but in the sense of 'seeing by means' of them.

In an effort to historicise *bianzheng lunzhi*, Volker Scheid has identified six different meanings of the character 證, usually translated as 'pattern.' Six different types of 'pattern differentiation' necessarily accompany these different meanings.⁴³ It is noteworthy, however, that all of these different approaches still attempt to solve the basic problem of variability and complexity in illness. More importantly, the first four approaches all seek to understand an illness by means of its outward manifestations. Only the last two, very recent, approaches may represent a break from this pattern. These two, 'disease types' and 'bio-patterns,' use biomedical definitions of disease and

new diagnostic technologies to identify an illness. In so doing, they may have broken away from the Chinese medical tradition. More research, and possibly the passage of more time, is necessary to be certain. From the Song to today, the cultural tradition of Chinese medicine has included many differing methods of individualising treatment, but to the extent that these methods retained the approach of seeking the root of an illness by means of its outer manifestations, they remained within that cultural tradition. Modern *bianzheng lunzhi* clearly retains this commitment and is merely the latest incarnation of that approach. The continuity of Chinese medicine has therefore incorporated a great deal of change, and its changes have often been part of an overarching continuity.

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- The day marking the beginning of the 1st solar term, February 3rd, 4th or 5th in the Gregorian calendar.
- The day marking the beginning of the 5th solar term, April 4th, 5th or 6th in the Gregorian calendar.
- The day marking the beginning of the 9th solar term, June 5th, 6th or 7th in the Gregorian calendar.
- The day marking the beginning of the 13th solar term, August 7th, 8th or 9th in the Gregorian calendar.
- Juan xia, wenzhong pian, in Zhu P. and Wang R. (Eds.). (1990). *Lidai zhongyi zhenben jicheng*. Vol. 3. Shanghai: Shanghai Sanlian Shudian, 24.
- E.g., *Nanyang huoren shu*, juan 6, questions 41–43, in Zhu Gong, *Huoren shu*, 73–76; Pang Anshi, *Treatise on All Types of Cold Damage* (Shanghan zongbing lun 傷寒總病論), juan 4, in Pang Anshi. (1989). *Shanghan Zongbing Lun*. Ed. Zou Dechen and Liu Huasheng. Zhongyi guji zhengli congshu. Beijing: Renmin Weisheng Chubanshe, 101–120.
- The most common translation of this term is 'phase energetics', derived from the association of the five movements with the five phases (*wuxing* 五行) and modern (mis)conception of *qi* as a form of energy. I have chosen not to use this translation since the correlations of the five phases and the five movements differ and *qi* in this case refers to

- climatic *qi*, e.g., damp, heat, cold, etc., making the term 'phase energetics' confusing.
- 13 Despeux, C. (2001). "The System of the Five Circulatory Phases and the Six Seasonal Influences (*wuyun liuqi*), a Source of Innovation in Medicine under the Song (960-1279)," in *Innovation in Chinese Medicine*. Ed. E. Hsu. New York: Cambridge University Press, 121-65.
 - 14 Liu Wenshu (劉溫舒, fl. late 11th c.), *Suwen rushi yunqi lun'ao* (*On the Subtleties of Movements and Qi according to Questions on the Simple* 素問入式運氣論奧), *juan xia*, pian 28-30, pp. 21a-32a, in *Siku Quanshu*.
 - 15 E.g., Xu Shuwei, writings shortly after the loss of North China, associated the transmission of evils through the Treatise's three *yin* and three *yang* with the reverse of the annual progression of six *qi* in movements and *qi* doctrine. *Puji benshifang*, *juan 9*, pp. 9a-b, in *Xuxiu siku quanshu bianzuan weiyuan hui*. (1995). *Xuxiu siku quanshu*. Vol. 984. Shanghai: Shanghai Guji Chubanshe. The earliest edition of *Cheng Wuji's Zhuji Shanghan lun* (*Annotated Treatise on Cold Damage*) as well as the Zhao Kaimei edition contain a series of charts and a brief discussion related to the system of movements and *qi*, but the content seems unrelated to the rest of the text and is neither found in other editions nor mentioned in Cheng's commentary. I am inclined to see it as a later addition. See, Cheng Wuji. (1599 [1956]). *Zhuji Shanghan lun*. Ed. Zhao Kaimei. Zhongjing quanshu. Beijing: Renmin Weisheng Chubanshe, 13-18.
 - 16 *Shanghan zongbing lun*, *juan 1*, *xulun*, in Pang Anshi, *Shanghan Zongbing Lun*, 3-4.
 - 17 E.g., *Shanghan zongbing lun*, *juan 1*, *xulun*, in *ibid.*, 3.
 - 18 Author's preface, *Excellent Formulae of Su and Shen* (Su Shen liangfang 蘇沈良方, early 11th c.), in Su Shi and Shen Gua. 2009. *Su Shen neihan liangfang*. Ed. Song Z. and Li E. Beijing: Zhongyi Guji Chubanshe, 2009, 1.
 - 19 All editions of this text read 'punishment and conquest' (*xingke* 刑剋), a term which I have been unable to locate. 'Generation and conquest' (*shengke* 生剋), would fit the context, but a scribal error of *xing* 刑 for *sheng* 生 seems unlikely.
 - 20 Shi Kan, *Shi Zaizhi fang*, *juan xia*, "Weiyi zonglun," in *Zhongguo yixue dacheng sanbian*, 4:482.
 - 21 *Juan 1*, in Kou Zongshi. (1990). *Bencao Yanyi*. (1990). Ed. Yan Z., Chang Z., and Huang Y. Zhongyi guji zhengli congshu. Beijing: Renmin Weisheng Chubanshe, 7-8.
 - 22 E.g., Zhu Gong, *Nanyang Book for Saving Lives*, author's preface, in Zhu Gong, *Huoren shu*, 19-20; Xu Shuwei, *One Hundred Songs on Cold Damage Patterns*, zheng 3-6, in Xu Shuwei, *Xu Shuwei Shanghan lun Zhu Sanzhong*, ed. Chen Zhiheng, Zhongyi Guji Zhengli Congshu (Beijing: Renmin Weisheng Chubanshe, 1993), 18-22.
 - 23 *Shanghan zongbing lun*, *juan 1*, *xulun*, in Pang Anshi, *Shanghan Zongbing Lun*, 3.
 - 24 In its broadest sense, as it was understood in the Northern Song, cold damage includes all externally contracted illnesses. Miscellaneous disease, then, refers collectively to all other types of illness.
 - 25 *Xiao'er yaozheng zhijue*, *juan shang*, *wuzang suozhu*, p. 2b, in Qian Yi. (1984). *Xiao'er yaozheng zhijue*. Ed. Yan X. Zhoushi yixue congshu. Yangzhou: Jiangsu guji keyinshe.
 - 26 *Juan shang*, *ganbing sheng fei*, p. 5a, in *ibid.*
 - 27 *Xian* is frequently translated as 'epilepsy', but the recent work of Fabien Simonis has shown that this association is problematic. I have therefore chosen not to translate this term. See, Simonis, F. (2010). "Mad Acts, Mad Speech, and Mad People in Late Imperial Chinese Law and Medicine." PhD Dissertation, Princeton University.
 - 28 *Juan shang*, *wuxian*, p. 8b, in Qian Yi, *Xiao'er yaozheng zhijue*.
 - 29 *Juan shang*, *chuangzhen*, p. 9a, in *ibid.*
 - 30 Postface, in Pang Anshi, *Shanghan Zongbing Lun*, 206. This postface is not part of any extant editions of the text, but is found in the *Keshan ji* (*Mount Ke Collection* 柯山集), *juan 44*.
 - 31 *Shanghan lun*, *juan 6*, *pian 12*, line 350, in Zhang Ji. (2010). *Zhongjing quanshu zhi Shanghan lun*, *Jingui yaolue fanglun*. Ed. Zhang Xinyong. Beijing: Zhongyi Guji Chubanshe, 458.
 - 32 It is unclear whether the Song editors added these lists or found them in one of the editions they examined. Neither their preface or postface mentions adding them, but they give few details about their editorial decisions in general.
 - 33 *Yilei yuanrong* (*Supreme Commander of the Bastion of Medicine* 醫壘元戎, 1237), *juan 12*, p. 47a, in *Siku Quanshu*.
 - 34 Throughout this text, Xu refers to the numbered methods as 'patterns' (*zheng* 證).
 - 35 *Shanghan jiushilun* (*Ninety Discourses on Cold Damage* 傷寒九十論), zheng 2, in Xu Shuwei *Shanghan lun zhu sanzong*, 149.
 - 36 The original meaning of *zhi* 痙 is unclear, but it was understood by Song and later interpreters of the *Shanghan lun* as 'tetany' (*jing* 痙), a reading supported by the use of *jing* in place of *zhi* in the *Jingui yuhan jing* (*Classic of the Golden Coffin and Jade Case* 金匱玉函經).
 - 37 *Juan 6*, question 50, in Zhu Gong, *Nanyang huoren shu*, 82.
 - 38 See, *Shanghan lun*, *juan 2*, *pian 4*, p. 9a, in *Zhongjing quanshu*, 356.
 - 39 Stephen Boyanton. (2015). "The Treatise on Cold Damage and the Formation of Literati Medicine: Social, Epidemiological, and Medical Change in China 1000-1400." PhD Dissertation, Columbia University.
 - 40 *Analects* II.10, translated in Stephen Owen (Ed.). (1992). *Readings in Chinese Literary Thought*. Cambridge: Harvard University Press, 19.
 - 41 *Mencius* II.A.2.xvii, translated in *ibid.*, 22.
 - 42 *Ibid.*, 19-22.
 - 43 Scheid, V. "Convergent Lines of Descent: Symptoms, Patterns, Constellations, and the Emergent Interface of Systems Biology and Chinese Medicine," *East Asian Science, Technology and Society*, vol. 8, no. 1 (2014): 133-136.