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Understanding the *jiaoqi* Experience: The Medical Approach to Illness in Seventh-century China

Today, it is possible to consider disease separately from the individuals who suffer it. We wage wars against cancer, AIDS, and malaria. The many bioscientists who work to support clinical medicine investigate the causes and mechanisms of such diseases, hoping to find the keys to conquering them in all sufferers, and not just in particular individuals. Sometimes, this ontological understanding of disease spills over into historical work and allows us to think that what the old disease names indicate has remained constant over time. It is easy to imagine, for example, that the handful of old Chinese disease names that found their way into modern biomedicine – such as *nüe* 瘧, now translated as “malaria,” *huoluan* 霍亂, now “cholera,” or *shanghan* 傷寒, now “typhoid” – retained some essential identity across the centuries of their use. Premodern Chinese doctors may not have known about the microbes that cause these disorders, or treated them as biomedical doctors do, but we assume that what they called *nüe*, *huoluan*, and *shanghan* at least corresponded to what we recognize as discrete diseases.

That, in any case, is the impression given by the existing literature on *jiaoqi* 腳氣.¹ Like the names mentioned above, this one long predates the advent of modern medicine – having appeared in medical documents at least by 500 AD, and having been used continuously since. By the early-twentieth century *jiaoqi* had become the translation for the vitamin B1 deficiency disorder beriberi, and when scholars in the 1930s wrote about *jiaoqi*'s history, they wrote about it as a history of a

¹ I use the Romanized version of the modern Mandarin pronunciation of the characters for *jiaoqi*. My earlier attempts to translate *jiaoqi* into English turned out badly. I deferred to the scholarly consensus that *qi* 氣 has no satisfactory equivalent in English, leaving *qi* as it was and translating *jiao* as “foot.” Some readers of drafts of this essay found the English-Pinyin hybrid “foot *qi*” awkward. Moreover, according to *Hanyu da cidian* 漢語大詞典, in early China, *jiao* referred to everything below the knees, as distinct from the feet (which had a separate character, *zu* 足). So “lower leg *qi*” would be even more accurate, but even more awkward, as well.

vitamin deficiency disorder; they implied that scientific medicine had finally revealed what the name had meant all along. Following in this tradition, some later scholars have continued to write about historical *jiaoqi* as if it were only and exactly beriberi.

The problem with this approach is that beriberi as a gloss on *jiaoqi* dates back only to the late-nineteenth century, when the vitamin B₁ deficiency disorder became a serious concern for imperial governments. Before Japanese physicians trained in Western medicine began equating *jiaoqi* with the beriberi that was then devastating the Japanese army and navy, physicians who wrote about *jiaoqi* associated a very wide range of symptoms and predispositions with the disorder. Some seem to correspond to beriberi, but others are more likely to have been gout or even athlete's foot (the modern colloquial meaning of the term *jiaoqi*).²

This diversity in pre-nineteenth-century sources has led recent historians such as Liao Yuqun 廖育群 to argue that descriptions of *jiaoqi* before the late-nineteenth century do not allow us to conclude that it was beriberi at all, much less *only* beriberi. Liao suggests a peripheral polyneuropathy of indeterminate cause, perhaps heart disease, syphilis, or heavy-metal poisoning, as the true identity of premodern *jiaoqi*. Another scholar suggests that the name originally denoted bubonic plague.³

Even if we refuse to interpret premodern *jiaoqi* as exactly beriberi, however (a reading which, to agree with Dr. Liao, the primary sources cannot sustain), understanding it as syphilis or as plague gets us no closer to knowing this illness as early Chinese doctors did. To recast the history of *jiaoqi* as the history of, for example, heavy-metal poisoning ignores the most fundamental way in which biomedical diseases

² Hilary A. Smith, "Foot Qi: History of a Chinese Medical Disorder," Ph.D. diss. (Philadelphia: University of Pennsylvania, 2008), explains how *jiaoqi* came to be associated with beriberi in nineteenth-century Japan, and how this new meaning later took hold in China.

³ For an example of the history of *jiaoqi* as written in the 1930s, see Chen Bangxian 陳邦賢, *Zhongguo yixueshi* 中國醫學史 (Shanghai: Shanghai yixue shuju, 1929), pp. 341–42. More recently, the Japanese historian Yamashita Seizō has written the most about the history of this disorder, pronounced *kakke* in Japanese. Like Chen, Yamashita presents the history of *kakke* as though it is – or should be – the history of beriberi. See Yamashita Seizō 山下政三, *Kakke no rekishi: bitamin hakken yizen* 腳氣の歴史, ビタミン発見以前 (Tokyo: Tokyo daigaku shuppansha, 1983), and *Meiji ni okeru kakke no rekishi* 明治における脚氣の歴史 (Tokyo: Tokyo daigaku shuppansha, 1987). Liao Yuqun has written several articles about *jiaoqi*; the relevant one here is "Guanyu Zhongguo gudai de jiaoqibing ji qi lishi de yanjiu" 關於中國的腳氣病及其歷史的研究, *Studies in the History of Natural Sciences* 自然科學史研究 10.3 (2000), pp. 206–21. The article that suggests bubonic plague as the "original meaning" of *jiaoqi* is Fu Youfeng 符友豐, "Jiaoqi benyi yu xianshuyi shihua" 腳氣本義與腺鼠疫史話, *Journal of the Nanjing TCM University* 南京中醫藥大學學報 7.1 (2006), pp. 25–31.

differ from premodern illnesses. The prevailing biomedical model, inherited from the anatomical and bacteriological investigations of the sixteenth through nineteenth centuries, treats diseases as entities. From this perspective, diseases can be considered separately from the individual people in whom they manifest; a disease such as syphilis is thought to have a single cause, to express itself in a universally recognizable way, and to be treatable by a standard regimen. But Chinese doctors, as is clear from the early medical literature, approached illness as an experience, not an entity. And an experience, unlike an entity, could have many different causes and appropriate treatments. Its expression was not universal but depended on the individual patient's circumstances.

In this essay, I attempt to present the *jiaoqi* experience as it appears in medical literature up to the seventh century, and to suggest why it differs from the disease entities we have grown familiar with in modern times. I first introduce the primary sources from which most of this discussion derives, and then give a composite sketch of the *jiaoqi* experience as it appears in these sources. Finally, I will explore what the sources have to say about the symptoms and causes of *jiaoqi*, highlighting how the doctors who wrote these texts understood the place of symptoms and etiology in their work – namely, diagnosing and treating sick people.

Two arguments emerging from Nathan Sivin's extensive work on the history of Chinese science and medicine have informed my thinking about early *jiaoqi*. The first is his gentle reminder, delivered in written form to his colleagues and in lecture form to his undergraduates, that much of what seems foreign to us about premodern Chinese medicine reflects its premodernity rather than its Chineseness.⁴ Indeed, nosology was as unimportant to classical Western medicine as to classical Chinese medicine; before the eighteenth century, the idea that disease could be separated from the suffering of an individual would have seemed as bizarre to Western doctors as to Chinese doctors.⁵

⁴ See, for example, Sivin's *Traditional Medicine in Contemporary China* (Ann Arbor: Center for Chinese Studies, U. of Michigan, 1987), pp. 36–39, 43–45.

⁵ Even after the 17th c., Western doctors committed to a physiological and experiential notion of illness strongly objected to the forms of ontological nosology that cropped up from time to time. The 19th-c. physician Rudolf Virchow, e.g., expressed a sentiment that could equally have come from the brush of a Chinese doctor when he wrote, "The subjects of therapy are not diseases but conditions; we are everywhere only concerned with changes in the conditions of life. Disease is nothing but life under altered conditions." Quoted in Knud Faber, *Nosography: The Evolution of Clinical Medicine in Modern Times* (New York: Paul B. Hoeber, 1930), p. 66. In the end, however, the ontological understanding of disease proved irresistible, and it predominates today.

The second argument that informs this exploration is about the relationship between text and experience in early Chinese medicine. Analyzing Chunyu Yi's 淳于意 famous defense of his own practice given in *Shi ji* 史記, Sivin characterizes the relationship between text and practice described there in the following way: "books preserve the experience of one's predecessors in a line that goes back to the archaic sages, and... *with the proper initiation* one can find in them by what amounts to induction the patterns of judgment that make skilled practice possible."⁶ Much of what gives these texts meaning and coherence, in other words, is not actually in the text itself, but was conveyed through personal mentorship. This makes it difficult for a historian, armed with only the textual half of this dynamic process, to fully understand the logic of early Chinese doctors' practice. It chastens us to approach with a sense of humility the documents those doctors have left behind, knowing that despite their profusion, there is a great deal that we cannot learn from them.⁷

A WORD ABOUT SOURCES

Jiaoqi began to appear in medical documents by at least 500 AD when it featured in Ge Hong's *Emergency Formulas to Keep up Your Sleeve* (*Zhou hou bei ji fang* 肘後備急方). This might imply a debut even earlier than 500, because Ge Hong wrote the original version of *Emergency Formulas* in the early fourth century. Philologists argue, however, that it is impossible to tell which parts of *Emergency Formulas* were written by Ge and which came from the brush of Tao Hongjing 陶弘景, who edited and supplemented the text in 500.⁸ I therefore take the later date as a conservative estimate of the earliest extant mention. During the same Period of Disunity, as we know from the bibliographies of early dynastic histories, a handful of treatises (*lun* 論) on *jiaoqi* emerged.⁹

⁶ "Text and Experience in Chinese Medicine," in Don Bates, ed., *Knowledge and the Scholarly Medical Tradition* (Cambridge: Cambridge U.P., 1995), p. 184 (emphasis mine).

⁷ This is a feature of Chinese medicine that persists even today, as Judith Farquhar elegantly points out in *Knowing Practice: The Clinical Encounter of Chinese Medicine* (Boulder, San Francisco and Oxford: Westview Press, 1994). Students of traditional Chinese medicine still require patient mentorship and accumulated experience to lend meaning to the classical texts they encounter in class. She notes that it was through practice and experience that the respected older doctors Farquhar observed in the Guangzhou traditional medicine academy reconciled seeming contradictions and mysteries in classical texts.

⁸ Ma Jixing 馬繼興, *Zhongyi wenxian xue* 中醫文獻學 (Shanghai: Shanghai kexue jishu chubanshe, 1990), p. 160; Wei Zixiao 魏子孝 and Nie Lifang 聶莉芳, "Fangshu chengjiu" 方書成就, chap. 5 in *Zhongyi Zhongyao shi* 中醫中藥史 (Taipei: Wen jin chubanshe, 1994), p. 138.

⁹ One can identify three basic types of medical literature in this period. There were, first of all, the classics (*jing* 經), venerable texts full of abstractions that described the cosmic logic be-

None of these have survived to modern times, but some of their content is preserved in the compilations that constitute my main sources for this essay.

These compilations, completed in the seventh century, provided the *locus classicus* for *jiaoqi* in virtually all later medical literature: *Comprehensive Treatise on the Sources and Symptoms of All Disease* (*Zhu bing yuanhou zonglun* 諸病源候總論) and *Essential Emergency Formulas Worth a Thousand in Gold* (*Beiji qian jin yao fang* 備急千金要方). Mentions of *jiaoqi* in earlier extant texts seem either to have been later interpolations or not to have been as influential as those in *Sources and Symptoms* and *Formulas worth a thousand in gold*. Moreover, earlier mentions lack the depth and detail of description that characterize both *Sources and Symptoms* and *Formulas worth a thousand in gold*. The seventh-century accounts of *jiaoqi*, which combine the therapeutic information of formularies with the theoretical framework of the Han medical classics, provide a richer picture of how literate doctors understood this disorder than does Ge Hong's *Emergency Formulas to Keep up Your Sleeve*. Ge's book, typical of early formularies, devotes far more text to therapeutic formulas than to analysis of disease.¹⁰

Sources and Symptoms was one of the first medical works sponsored by the imperial government. Compiled in 610 AD at the behest of the Sui emperor Yangdi, it was likely intended to be a textbook for a school for government physicians.¹¹ The project ostensibly catalogued the whole range of human bodily disorder, comprising just one small part of

hind the human body's development, functioning, and malfunctioning. The most well known of this genre is the *Yellow Emperor's Inner Classic* (*Huangdi neijing* 黃帝內經), dated between 100 BC and 100 AD. Treatises (*lun* 論) often described a specific disorder and its treatment; the specialty titles on *jiaoqi* that I have mentioned are one example, and the famous 2d-c. *Treatise on Cold Damage Disorders* (*Shang han lun* 傷寒論) is another. The third type, and the most abundant, was the formulary (*fangshu* 方書). Formularies contained useful medical techniques, not only drug formulas but also instructions for physical exercises, health-cultivating discipline, and acupuncture and moxibustion.

¹⁰ Ge Hong's *Emergency Formulas to Keep up Your Sleeve* is not nearly as well known as his magnum opus, the *Master Who Embraces Simplicity* (*Baopuzi* 抱樸子), and its discussion of *jiaoqi* is not quoted in later medical texts with the regularity that both *Sources and Symptoms* and *Formulas Worth a Thousand in Gold* are. His discussion of *jiaoqi* appears in *juan 3* of the version extant today. See Mei Quanxi 梅全喜, ed., *Baopuzi nei pian, Zhou hou bei ji fang jin yi* 抱樸子內篇, 肘後備急方今譯 (Beijing: Zhongguo Zhongyiyao chubanshe, 1997), pp. 265–69. The name *jiaoqi* also appears in the extant version of the third-century *Jin kui yao lue* 金匱要略, but philologists are skeptical that *jiaoqi* was in the original. See Mori Risshi 森立之, ed., *Shanghan lun kaozhu: fu Jin kui yao lue kaozhu canjuan* 傷寒論考註, 附金匱要略考註殘卷 (Beijing: Xueyuan chubanshe, 2001), pp. 586, 588–89, 597–99.

¹¹ Later editions of *Sources and Symptoms* credit Chao Yuanfang 巢元方, an official in the office of the Imperial Physician, as the chief editor of the compilation. No preface from the earliest edition of *Sources and Symptoms* is extant, however, and the bibliographies in the stan-

Yangdi's empire-building projects. In addition to the tremendous influence it exerted on later medical texts, *Sources and Symptoms* also helped to preserve earlier ones. There are some 300 medical books in the bibliographies of the Han and Sui dynasties that are no longer extant, and some of their content has survived in this encyclopedic work.

The second important primary source used here is Sun Simiao's 孫思邈 classic work, the *Essential Emergency Formulas Worth a Thousand in Gold*, completed in 652 AD. Sun, who uses *Sources and Symptoms* extensively, augments the latter's descriptions of *jiaoqi* with more information about the history and distribution of the disease. Unlike the editors of *Sources and Symptoms*, Sun was not working at the behest of a central government, and he was not helped in his efforts by an editorial staff. As a learned scholar and skilled physician who outlived the Sui dynasty and then saw some six decades of the Tang, Sun attracted the attention of both Sui and Tang emperors, and refused most of their invitations to enter government service. Instead, according to his biography in the *New Tang History* (*Xin Tang shu* 新唐書), he spent his life treating patients, and he eventually retreated to the mountains of what is now Shaanxi 陝西 province in order to expand his knowledge of medicinal herbs. Sun's two most famous works, the *Essential Formulas Worth a Thousand in Gold* (652 AD) and the *Extended Formulas Worth a Thousand in Gold* (*Qian jin yi fang* 千金翼方) that followed in 682 AD, are based on his own rich medical experience and wide reading.¹²

There are many reasons for the lasting influence of *Essential Formulas Worth a Thousand in Gold*. It is known as the first Chinese book to address medical ethics (Sun asserts, for example, that a great doctor must not consider whether the patient is "high-born or lowly; rich or poor; old or young; beautiful or ugly; enemy, relative, or good friend, Chinese or foreign; stupid or wise"—they must all be treated to the same standard of care). In addition, the book's extensive treatment of diseases specific to women has also kept it fashionable among practitioners, as well as among historians concerned with the experiences of women

dard histories for the Sui, Tang, and Song dynasties attribute variations on this title alternately to Chao and to a Wu Jingxian 吳景賢 or Wu Jing 吳景, about whom we know only that he was a learned physician. From the *Tuan History* forward, *Sources and Symptoms* is consistently attributed to Chao. See Ding Guangdi 丁光迪, ed., *Zhu bing yuanhou lun jiaozhu* 諸病源候論校注 (Beijing: Renmin weisheng chubanshe, 2000; hereafter, *ZBYHL*), p. 1560.

The office that employed Chao was, according to Hucker, "a teaching and certifying agency for professional physicians in government service"; Charles O. Hucker, *A Dictionary of Official Titles in Imperial China* (Stanford: Stanford U.P., 1985), p. 479.

¹² Nathan Sivin's *Chinese Alchemy: Preliminary Studies* (Cambridge, Mass.: Harvard U.P., 1968) remains the best source in English on Sun's life.

in imperial China.¹³ It also synthesizes and preserves material from an impressively wide range of sources; Sun draws on virtually all the earlier medical works available to us today, and more. The important *Treatise on Cold Damage Disorders* (*Shanghan lun* 傷寒論) is an exception, but Sun apparently only gained access to the *Treatise* after finishing his *Essential formulas*, and used it in his *Extended Formulas Worth a Thousand in Gold*, completed some thirty years later.

Finally, the tenth-century Japanese compilation *Ishimpō* 醫心方, a formulary edited by Tamba no Yasuyori 丹波康賴, is also valuable for understanding medicine in the seventh century, because it preserves sections of text from many earlier medical works that would otherwise not be extant. It contains a *juan* on *jiaoqi* that relies heavily on material from Sun Simiao and *Sources and Symptoms*. It combines this information, however, with therapeutic formulas from earlier books – now available nowhere else – devoted exclusively to *jiaoqi*: Tang Lin's *Treatise on jiaoqi*, Su Jing's *Treatise on jiaoqi*, and *The Three masters' Treatise on jiaoqi*, for example. Where appropriate, I refer to descriptions of *jiaoqi* contained in *Ishimpō*.

These early works that discuss *jiaoqi* are connected to both Daoist and Buddhist traditions and to some degree show their influence. Some scholars link *Emergency Formulas* with the Shangqing sect of Daoism because of its association with Ge Hong and Tao Hongjing. They also suggest that the health-cultivating techniques (*yangsheng* 養生, or *yangxing* 養性), dietary recommendations and proscriptions in *Sources and Symptoms* and *Formulas Worth a Thousand* reflect Daoist practices.¹⁴ There is no reason, however, to believe that the health-cultivating and dietary practices in the sources are specific to a Daoist lineage, rather than just elements of any learned man's repertoire of self-cultivation techniques.

¹³ Sabine Wilms, "The Female Body in Medieval China: A Translation and Interpretation of the 'Women's Recipes' in Sun Simiao's *Beiji Qianjin Yaofang*," Ph.D. diss. (University of Arizona, 2002). Charlotte Furth touches briefly on Sun Simiao's work as an early foundation for the later specialty works she is most concerned with in *A Flourishing Yin: Gender in China's Medical History, 960–1665* (Berkeley: U. California P., 1999). Sun's work is also an important source for Jen-der Lee's research into the early history of gynecology and obstetrics in China. See her "Childbirth in Early Imperial China," *Nan Nü* 7.2 (2005), pp. 216–86.

¹⁴ Liao Yuqun 廖育群, Fu Fang 傅芳, and Zheng Jinsheng 鄭金生, *Zhongguo kexue jishu shi, yixue juan* 中國科學技術史, 醫學卷 (Beijing: Kexue chubanshe, 1998), pp. 210–15. But as Nathan Sivin has argued, assertions about the influence of "Daoism" and the identification of historical figures – such as Ge Hong – as "Daoists" are often too ambiguous to identify social groups in history; see "On the Word 'Taoist' as a Source of Perplexity," *History of Religions* 17.3–4 (February–May 1978).

The evidence of Buddhist influence is clearer. During the Period of Disunity, Buddhist-authored medical works begin to appear in the bibliographies of the dynastic histories, and some of the ideas of Indian medicine begin to appear in Chinese medical works – such as the notion that there are four main causes of disease (earth, fire, water, and wind) and that each of these is associated with 101 disorders. Some of the drug ingredients discussed in formularies were also marked as coming from India. In the case of *jiaoqi*, Sun Simiao informs the reader that two third- to fourth-century monks, Zhi Facun 支法存 and Yang Daoren 仰道人, were especially skilled at treating *jiaoqi* and left excellent books of formulas designed for the disorder – books that by Sun’s time had already been lost, but that may have informed some of the many formularies he consulted.¹⁵ Despite the foreign origin of these *jiaoqi* experts, however, there is no indication that Sun or any of the authors writing about *jiaoqi* considered it a foreign disorder.

THE *JIAOQI* EXPERIENCE

Jiaoqi is, first of all, an insidious illness that can lie dormant for a long while before outward symptoms appear. In the words of Chao Yuanfang:

When they get this illness, many people do not immediately feel it. Some first have no other disorder and then suddenly get [this one]; some contract it after suffering multiple other illnesses. In the beginning the symptoms are trivial; the patient eats, drinks, and amuses himself the same as ever, and his physical strength is the same as before. At this time one must observe the illness carefully.¹⁶

Once the patient does begin to feel it, he always feels it *first* in the lower legs, the *jiao*. This is why, Sun Simiao helpfully explains, the illness is called *jiaoqi*. According to his explanation, three of the circulation tracts that carry vital substances through the body begin in the toes, and the pernicious *qi* associated with the illness rises from

¹⁵ Li Jingrong 李景榮, ed., *Beiji qian jin yao fang jiaoshi* 備急千金要方校釋 (Beijing: Renmin weisheng chubanshe, 1996; hereafter, *QJYF*), pp. 265–66. The surname Zhi, not a Han Chinese name, indicates that the monk was Yuezhi, a people whose home was in the Central Asian grasslands to the northwest of China. See Wang Zhipu 王致譜, “Zhi Facun shengping ji qi zai jiaoqibing fangzhi shang de gongxian” 支法存及其在腳氣病防治上的貢獻, *Zhonghua yishi zazhi* 中華醫史雜誌 11.4 (1981), pp. 216–19. As for Yang Daoren, in this period the term *daoren* generally referred to Buddhist monks; see Sivin, “Taoism and Science,” section VII in *Medicine, Philosophy and Religion in Ancient China: Researches and Reflections* (Aldershot: Variorum, 1995).

¹⁶ *ZBYHL*, pp. 413–14.

the ground, so it enters the body through the feet, causing symptoms localized in the feet and lower legs. From there the symptoms spread out to the rest of the body.¹⁷

If untreated, the illness proceeds inexorably upward toward the belly and chest. A rush of *qi* into the chest and heart system precipitates the fatal crisis, if the illness is allowed to progress that far:

If one is slow to treat [this illness], it easily rises and enters the belly. When it has entered the belly, in some cases [the belly] will swell and in some cases it will not swell, [but in either case] when the chest and flank fill up and the *qi* rises, it can easily kill a person. The acutely ill will not live out the day; the less ill sometimes have one to three days.¹⁸

The doctor bases his therapeutic strategy, therefore, on how deeply the disorder has penetrated the system.

Apart from observing the location and direction of symptoms on the body, ascertaining the patient's pulse image also gives the doctor indispensable clues about the illness's depth. He must always investigate the pulse before making therapeutic decisions. *Sources and Symptoms* carefully parses *jiaoqi*'s pulse manifestations:

When *jiaoqi* enters the internal organs, it has three types of pulse image. Even if its external symptoms are the same after it has entered the belly, the pulse images will differ. If the patient's pulse image is floating, large, and slack, you can administer two doses of Continuing-Life Infusion. If Wind [poison] is abundant then it is suitable to give Slave Girl of Yue Infusion and add four *liang* 两 of *Atractylodes* (*shu* 术) to treat it.¹⁹ If the pulse turns rapid and tight, you should give Bamboo Juice Infusion; if the pulse is slight and feeble, you should give two to three doses of Wind-Drawing Infusion. All of these [pulse symptoms] come from depletion. If the patient is greatly depleted and short of breath, you can intermittently administer tonifying medicine, following the hot and cold [alternations] of the illness itself. If the patient still is not cured,

¹⁷ *QJYF*, p. 267.

¹⁸ Some editions read "one to three months" instead of "one to three days"; editor Ding Guangdi suggests that somewhere along the line of transmission, 月 was mistranscribed as 日, an easy mistake to make; *ZBYHL*, pp. 414–15.

¹⁹ Chinese historians of medicine trace Slave Girl of Yue Infusion back to *Essential Formulas from the Golden Casket* (*Jin kui yao lue* 金匱要略), written by Zhang Zhongjing 張仲景 in the late-3d c. AD. Zhang gives no indication, however, of the etymology of the name when he describes how to make this infusion (nor do more recent commentators); see Mori, *Shanghan lun kaozhu* 2, pp. 599–600.

make some more Bamboo Juice Infusion... you must use your perception and accord with the situation.²⁰

After this, the author continues to describe at length appropriate responses to changing pulse images. *Sources and Symptoms* always pairs therapeutic recommendations (Continuing-Life Infusion, Bamboo Juice Infusion, and the rest) with pulse images, not with any other kind of symptom, which suggests that the pulse image is supposed to provide the key to treatment decisions. In this respect, *jiaoqi* is representative of other disorders in early learned medicine, in which pulse diagnosis was the central diagnostic technique. As Shigehisa Kuriyama points out, although literate doctors enshrined four techniques as the pillars of diagnosis – asking, looking, listening/smelling (*wen* 聞), and palpating the pulse – they only produced specialty monographs on one of those techniques: pulse palpation.²¹

The biomedically astute reader may feel unsatisfied with this description of *jiaoqi*. It discloses that *jiaoqi*, whatever it is, involves symptoms that travel upward from the lower legs. We know that what kills a *jiaoqi* victim is *qi* rising into the heart. But we may like to know more specifically what the deadly progression looks like: are there lesions, rashes, or painful spots? Do certain parts of the body swell up, twist unnaturally, or lose feeling? Do the victim's bowels tighten or loosen; does he move in any characteristic way? We may, moreover, like to know what kind of pathogen sets off this catastrophic concatenation. If that is what the reader requires, however, in order to feel that she understands this disorder, she will have to remain unsatisfied. As I shall explain below, symptoms and cause are neither stable nor essential in this understanding of disease.

²⁰ *ZBYHL*, p. 415.

²¹ Shigehisa Kuriyama, *The Expressiveness of the Body and the Divergence of Greek and Chinese Medicine* (Cambridge, Massachusetts: The MIT Press, 1999), pp. 19–20. The art of pulse palpation in classical Chinese medicine, as Kuriyama and others have pointed out, bears little resemblance to pulse-taking in biomedicine, in which doctors focus almost exclusively on the rapidity of the heartbeat. Doctors trained in classical Chinese medicine, by contrast, attuned themselves to what they felt under their fingers – whether the pulse was floating or sinking, full or shrunken, taut or slack, and much more. Today's TCM doctors commonly use more than twenty different descriptors to capture the qualities of pulses they encounter in everyday practice. See also Shigehisa Kuriyama, "Varieties of Haptic Experience: A Comparative Study of Greek and Chinese Pulse Diagnostics," Ph.D. diss. (Harvard University, 1986); Elisabeth Hsu, "Tactility and the Body in Early Chinese Medicine," *Science in Context* 18 (2005). Note that this appears to be a difference between premodern and modern medicine, rather than an inherent difference between Chinese and Western medicine. Western doctors protested the introduction of sphygmomanometers into their practice around the turn of the twentieth century, feeling that it represented a kind of de-skilling and that the numbers on a sphygmomanometer could not provide the same depth of information as the fingers of a seasoned doctor. See Hughes Evans, "Losing Touch: The Controversy over the Introduction of Blood Pressure Instruments into Medicine," *Technology and Culture* 34.4 (1993).

SYMPTOMS AS EXPRESSIONS OF SINGULARITY

Symptoms are, as one might expect from the book's title, central to the way disease is organized in *Sources and Symptoms*. Each of the sixty-seven chapters on the various disorders is divided into a number of subsections defined by symptom pattern. The section on *jiaoqi*, for example, consists of eight subsections, each highlighting a different symptom set: "the softening and weakening symptoms of *jiaoqi*," "the rising-*qi* symptoms of *jiaoqi*," "the numbness and weakness symptoms of *jiaoqi*," "the aching and numbness symptoms of *jiaoqi*," "the numbness and twitching symptoms of *jiaoqi*," "the anxious mind and swelling belly symptoms of *jiaoqi*," "the swelling and bloating symptoms of *jiaoqi*," and "the *jiaoqi* symptoms of wind crossing the tracts associated with the five *zang* 臟 organ systems, and fright." Each of these symptom sets represents a different form of *jiaoqi*. There is, however, no specific symptom that unifies *jiaoqi* as a category. No single symptom defines *jiaoqi* in these early sources, and none rules out a diagnosis. Consider, for example, the description of "softening and weakening symptoms of *jiaoqi*," the most expansive subsection in the *jiaoqi* chapter:

Its symptoms: numbness from the knee to the foot, sometimes aching, sometimes a creeping sensation like insects crawling around. In some cases the area from the toes to the knee and calf is especially sensitive to cold. In some cases the lower leg is bent and weak and [the patient] cannot walk. In some cases the lower legs have slight swelling, extreme sensitivity to cold, or pain. In some cases [the lower legs] are relaxed and do not obey [the patient's intentions], or twitch acutely. There are some whose condition is dire [yet] they can still eat and drink; [but] there are some who cannot eat, or who vomit upon seeing food and drink and can't stand the smell of food. Some [patients] feel a thing like fingers, dispatched from the meaty part of the calf, which travel upward and attack the *qi* of the heart system.

Some have spasms over the entire body. Some have a serious fever and headache. Some people's brains and hearts rush and throb [as though frightened], and they do not want to see light in the places where they sleep. Some patients have a bitter pain in their bellies and simultaneously have diarrhea; in some, their language is sloppy and error-filled and they easily forget or mistake things. Some have cloudy eyes and a confused aura. All of these

are signs of the illness... When one first contracts this illness, one should treat it quickly. It is different from ordinary illnesses.²²

It is not immediately clear, based on this description, how a doctor might identify this form of *jiaoqi*. Each item in the long list is preceded by a qualifying “sometimes,” “in some cases” (*huo* 或... *huo* 或...), making it clear that some, but not all, patients experience the given symptom. The text presents each manifestation as a possibility but not a certainty. It is only the context of an individual patient’s suffering that determines the relative importance of any item in this litany of possible symptoms. That is why it is virtually impossible to explain in a concise way what the symptoms of historical *jiaoqi* are. It develops subtly; it rises from the feet; its terminal phase involves *qi* rushing up into the heart system. But whether the symptoms that distress the victim are swelling or (conversely) atrophy in the legs; numbness, excruciating sensitivity to cold, or a crawling feeling in the skin; or any of the other possibilities – that depends on the individual patient.

To be sure, modern beriberi likewise confronts the biomedical practitioner with varied manifestations. The disease “is expressed in three major clusters of symptoms [edema, nervous, and cardiovascular symptoms], which vary from person to person,” *The Cambridge World History of Human Disease* notes, adding that it “may be chronic and so low-grade that it cannot be detected by clinical examination; in its chronic form, it may alternatively result in disability for months or years; or it may be acute and result in death in a few weeks.”²³ But for the biomedical practitioner, it is the symptoms’ cause that unites them and identifies these varied manifestations as a single disease. The usual method for diagnosing beriberi is symptomatic treatment: the patient takes vitamin B₁, and if the symptoms resolve, he is presumed to have suffered beriberi.

By contrast, to a seventh-century classical physician, what mattered most in diagnosis and treatment was the gravity of the disorder, not its cause. One sees this principle already in a third-century BC story about the legendary physician Bian Que 扁鹊. Bian Que visits duke Huan four or five times, each time warning that the duke has an illness, and each time noting that the disorder has moved a little farther toward the interior of the body. The duke, who does not feel ill, ignores Bian

²² *ZBYHL*, p. 414.

²³ Melinda S. Meade, “Beriberi,” pp. 606–11 in *The Cambridge World History of Human Disease*, edited by Kenneth F. Kiple (Cambridge: Cambridge U.P., 1993), p. 606.

Que's warnings, and on his last visit, Bian Que abruptly runs out of the audience chamber without so much as a word to the duke. Later, questioned about his behavior, Bian Que explains:

When the disease lies in the pores, it can be treated by poultices. When it lies in the blood vessels, it can be treated with needles. When it lies in the stomach and intestines, it can be treated with medicines. But when the disease lies in the bone marrow, not even the God of Life can do anything about it. The duke's disease now lies in the bone marrow, and it is for this that I have no more advice.²⁴

Bian Que does not specify the name or nature of duke Huan's disease; it might have been anything. The salient feature is not the name of the illness but its location in the body and the speed of its progress inward. Bian Que's retrospective analysis suggests that he could have determined the proper therapy from those two features alone, had he been allowed to intervene. The duke, who remains insensible to his own illness until the very end, proves Bian Que right by dying precipitously soon after the doctor stops trying to convince him that he is sick.

This model of disease development, with prognosis growing direr as the disorder progressed inward from the surface of the body, was an essential part of learned medicine in the earliest classics. The influential third-century *Treatise on Cold Damage and Miscellaneous Disorders* makes this clear in its discussion of cold damage. Drawing on the *Yellow Emperor's Inner Canon*, the *Treatise* describes how the illness creeps (or races) inward from one of the body's six "warps" (*jing* 經) to the next. The doctor will not treat a case of cold damage that has reached the Absolute Yin 厥陰 warp in the same way that he treats a case that has reached only the more superficial Greater Yang 太陽 warp. For the latter, the illness might still be close enough to the surface of the body that diaphoresis – inducing the patient to sweat it out – would suffice. For the former, sweating alone will not expel the illness, and more aggressive therapies, such as powerful purgatives, are required.

CAUSES: NON-SPECIFIC AND IRRELEVANT TO THERAPY

Modern readers, particularly the biomedically astute, may want to know what doctors thought caused *jiaoqi*. Working this out proves to be a slippery task, however. As in the case of virtually any other disorder

²⁴ The translation here is Shigehisa Kuriyama's, from "Epidemics, Weather, and Contagion in Traditional Chinese Medicine," in Lawrence I. Conrad and Dominik Wujastyk, eds., *Contagion: Perspectives from Pre-modern Societies* (Burlington: Ashgate, 2000), p. 15, n. 29.

in seventh-century texts, the potential causes for *jiaoqi* are legion. In the discussion that follows, I describe some of the causes seventh-century medical authors associated with the disorder. To the modern ear they may sound like environmental, infectious, genetic, nutritional, or emotional causes. This apparent diversity did not provoke arguments about the true cause of *jiaoqi*, however. Because the cause of a disorder did not affect the way a physician treated it, medical texts could accommodate many different ideas about causation, as the seventh-century literature does, without asserting the primacy of any one of them.

In many descriptions, *jiaoqi* looks like an environmental disease, caused by a kind of miasma. The earliest extant texts associate it with wind poison or hot, wet, or cold *qi* emanating from the ground, particularly from the ground in the low, wet regions of the south. The *jiaoqi* chapter in *Sources and Symptoms* begins, “All *jiaoqi* is brought about when one feels the effects of wind poison,” and elaborates:

In Jiangdong and Lingnan the topography is low, and wind and wet *qi* can easily hurt people. When [people] first get this disease, it generally rises from below... and then the toxic *qi* traverses the tracts and eventually enters the internal organs.²⁵

Sun Simiao, affirming this etiology, adds a sensible precaution for keeping the noxious *qi* out of one’s body:

Do not stand or sit in cold, wet places for long periods... if in the summer months you sit or stand for a long time on wet ground, then hot, wet *qi* will steam up into your circulation tracts... if in the winter months you sit or stand on wet, cold ground for a long time, then cold, wet *qi* will rise and enter your circulation tracts.²⁶

Later, when medical authors began to write about *zhang* 瘴 (a miasma prevalent in the empire’s southern reaches) *jiaoqi* was among the disorders associated with it. The *Comprehensive Records of Sagely Help* (*Sheng ji zong lu* 聖濟總錄) of 1117, and the *Subtle Meaning of the Jade Pivot* (*Yu ji wei yi* 玉機微義) of 1396 both attribute a particular type of *jiaoqi* to *zhang*.²⁷ The *zhang* concept was relatively new, having begun to appear widely in texts only in the Tang dynasty, and its association with *jiaoqi* was perfectly consonant with Sun Simiao’s and Chao Yuanfang’s

²⁵ *ZBYHL*, p. 416. Jiangdong 江東 and Lingnan 嶺南 are, respectively, the area south of the Yangzi River between Wuhu and Nanjing, and the area that is now the provinces of Guangdong and Guangxi.

²⁶ *QJYF*, p. 268.

²⁷ *Yu ji wei yi* was originally compiled in 1368, but the sections on *jiaoqi* were not added until 1396, which is why I give the later date here; Qiu Peiran 裘沛然, ed., *Zhongguo yiji da cidian* 中國醫籍大辭典 (Shanghai: Shanghai kexue jishu chubanshe, 2002) 1, p. 597.

assertions that rising *qi* in a particular region with a particular topography could cause the disorder. All of these descriptions, emphasizing ambient *qi* and the far south as *jiaoqi*'s geographical homeland, make it seem as though the disease were, at base, a kind of environmental disorder confined to particularly toxic locales.²⁸

Further details about the disorder remind us of other models of disease causation. When Sun Simiao associates the disorder with specific body types and constitutions, we are tempted to start thinking about a combination of genetics and behavior:

Dark-complexioned people can tolerate wind and wet [*qi*]; red-and-white-complexioned people do not tolerate wind. The flesh of skinny people is hard, and of fat people is soft. When the flesh is soft [as in fat people] the disease penetrates deeply.²⁹

Sun also writes about emotion and diet as important contributing factors, enjoining the patient to refrain from anger, and carefully listing foods *jiaoqi* sufferers should avoid (including mutton, beef, fish, butter, pork, chicken, goose, duck, and more) as well as those that are suitable for them to eat (among them millet, polished rice, fermented soybeans, green onions, peppers, ginger, orange peel, raw chestnuts and raw cow's milk).³⁰ This is not quite the same, of course, as suggesting that *jiaoqi* is a nutritional deficiency, or that anger causes the disorder. In this description, diet and emotion only contribute to recovery or relapse. By the fourteenth century, though, medical authors were suggesting that diet sometimes caused *jiaoqi* even without an invasion of poisonous *qi*.³¹

What about contagion, the idea that disease spreads from one person to another through close contact? Shigehisa Kuriyama has found examples in texts ranging from the fourth century through the nine-

²⁸ *Hanyu da cidian* 漢語大辭典 cites no instance of *zhang* earlier than the Tang dynasty, but offers a great many citations from the Tang, suggesting that the term came to be widely used during this period. The reference to *jiaoqi* as a *zhang* disorder appears in *juan* 37 of *Sheng ji zong lu* and in *juan* 23 of *Yu ji wei yi*. Edward Schafer has characterized the Sui and early Tang as a period when Chinese elites came to perceive the far south as a scary, toxic environment with wild beasts, wild people, and an intolerable climate. The emergence of the *zhang* concept at this time fits in with his general characterization; Edward H. Schafer, *The Vermilion Bird: Tang Images of the South* (Berkeley: U. California P., 1967).

²⁹ *QJYF*, p. 270.

³⁰ *QJYF*, p. 271. Prohibitions like the ones listed here are common in medical literature; convalescents are often warned against rich, oily foods, including most meats. If *jiaoqi* in this period were beriberi, one would have to conclude that Sun Simiao is prescribing precisely the wrong diet, since pork and beef, which he says to avoid, are both rich in vitamins B₁, and polished rice, which he recommends, offers little to no vitamin B₁.

³¹ In, e.g., Li Gao's 李杲 *Yixue faming* 醫學發明 of 1251.

teenth of contagionist explanations of disease: people expressing surprise that someone caring for a sick relative did not fall ill, for example, or blocking up their ears and noses when entering a house where a sick person lay.³² The evidence for a contagionist understanding of *jiaoqi* is not as clear-cut as what Kuriyama has found elsewhere. Some sources observed that *jiaoqi* was on the move, spreading as the range of human traffic expanded and its volume increased. Ge Hong notes tersely that it “originated in Lingnan and has begun to enter Jiangdong.”³³ Several centuries later, Sun Simiao details how *jiaoqi* has continued to spread even beyond Lingnan and Jiangdong, as trade and official business connect ever more remote places. “In the time of the Three Kingdoms (ca. 220 to 280 AD),” he explains:

customs and teachings were not yet unified, frost and dew were not evenly spread, and cold and heat were not balanced. Thus west of the mountain passes³⁴ and north of the Yellow River, they did not know this disease. Ever since the current emperor’s expansion [of territory], no place falls outside the empire in any direction... lately, even when the gentry of the Middle Kingdom do not cross south of the Yangtze, there are unexpectedly also those among them who suffer this illness.

The idea that *jiaoqi* is on the move, and that it spreads most quickly during periods of peace and imperial expansion – when more people are moving farther and faster than they have before – suggests at first glance an implicit understanding that humans might carry and transmit the disorder. Sun Simiao goes on to write, however, that the disease has spread “because today the wind *qi* of every place under heaven is mixed together.”³⁵ This is ambiguous; does it imply that *jiaoqi*-causing miasma has spread, much as we might imagine an environmental toxin contaminating a wider and wider area? Or might human beings be the agents of transmission, bearing different kinds of wind *qi* with them as they travel farther and mix freely with other people from far-flung regions? Such observations about the disorder’s spread, alone, are insufficient evidence for a contagionist understanding of its cause.

The most prominent agent of disease in *jiaoqi*, as in Chinese medicine more broadly, is heteropathic *qi* (*xie qi* 邪氣, sometimes translated

³² Kuriyama, “Epidemics, Weather.”

³³ Mei, *Baopuzi nei pian*, *Zhou hou bei ji fang jin yi*, p. 265.

³⁴ According to the *Hanyu dacidian*, this can mean either Hangu guan 函穀關 (near present-day Lingbao City 靈寶 on the northern border of Henan province, just south of the Yellow River) or Tong guan 潼關 (Shaanxi province).

³⁵ *QJYF*, p. 266.

as “deviant” or “evil” *qi*).³⁶ This is the wind, the wet, the cold, the unseasonable *qi* that steals or rushes into the body and has the potential to wreak havoc, and it features as a disease factor in countless symptom patterns in both the *Sources and Symptoms* and the *Formulas Worth a Thousand in Gold*. But this is quite different from the specific disease agents of modern biomedicine. First of all, heteropathic *qi* could only make a person sick when combined with a preexisting vulnerability. If the system were out of equilibrium in some way – whether weakened by a previous illness, damaged by excessive emotion, destabilized by an unwise diet, or simply depleted for reasons unknown – then invasive *qi* might produce symptoms. Otherwise, it posed no threat.

Moreover, the symptoms that invasive *qi* might cause varied enormously, depending on which other illness factors (*bingyin* 病因) were operating in a given case. Consider wind poison; it is implicated in a whole host of disorders besides *jiaoqi*. In the twenty-eighth chapter of *Sources and Symptoms*, for example, we find it causing cataracts. In chapter thirty it is taking up residence in the throat, causing sores. It contributes to certain kinds of cinnabar poisoning. It also partners with wet *qi* in a disgusting foot disorder that, in its dry version, is something like scabies, and in its wet version produces sores containing *zhi* 汁 (a liquid with solid matter suspended in it).³⁷ None of these diseases are related to *jiaoqi* in any obvious way, except that wind poison has a role in causing them all. So although wind poison caused *jiaoqi* in a certain sense, it did not cause *jiaoqi* in the same way that the cholera vibrio causes cholera or a vitamin B₁ deficiency causes beriberi. The cholera vibrio cannot cause tuberculosis, and the vitamin B₁ deficiency will not cause pellagra, but the wind poison that causes *jiaoqi* might cause any of the other disorders mentioned above, from cataracts to itching feet.

Heteropathic *qi* was an important disease factor, but particular varieties of *xie qi* were interchangeable, and did not interest doctors. Potentially pathogenic wind, wet, hot, and cold *qi* all entered through the same openings (usually the pores) and proceeded into the body in the same manner, passed along from one circulation tract to the next.

³⁶ I use Manfred Porkert’s “heteropathy” as a translation for *xie* to emphasize that the illness-causing *xie qi* differs from the *qi* of the body, invading from the outside; see Manfred Porkert, *The Theoretical Foundations of Chinese Medicine: Systems of Correspondence* (Cambridge, Mass.: The M.I.T. Press, 1974), p. 54. Vivienne Lo and Sylvia Schroer explore the meanings of *xie* in the oldest texts in which the term appears in their article, “Deviant Airts in ‘Traditional’ Chinese Medicine,” pp. 45–66 in Joseph S. Alter, *Asian Medicine and Globalization* (Philadelphia: U. Pennsylvania P., 2005).

³⁷ *ZBYHL*, pp. 783–85 (cataracts), p. 847 (throat sores), pp. 867, 870 (cinnabar poisoning), p. 1002 (wet and dry *jie* 疥, the scabies-like symptoms).

Wind *qi* was neither more nor less intrinsically virulent than wet *qi*, neither easier nor harder to contract. In fact, despite the categorical statement “All *jiaoqi* is brought about when one feels the effects of wind poison” that opens the *Sources and Symptoms* chapter on *jiaoqi*, medical authors attributed the illness to a varied parade of invasive pathogens. In some cases, *jiaoqi* was associated with wind poison; in others, it was water poison, cold *qi* or wet *qi*. Many late imperial texts suggested that overeating and drinking too much, alone, could cause the symptoms of *jiaoqi*, even when no wind or wet or cold *qi* was involved. Often these varied causes appeared in a single book. Some who quoted Chao Yuanfang’s assertion that wind poison brings about “all *jiaoqi*,” for example, then went on to cite other authors who asserted that water poison or wet *qi* caused the illness, without noting any contradiction.³⁸

Therapy, the central concern of seventh-century formulary writers, was not geared toward particular types of heteropathic *qi*. Regardless of what form it took, heteropathy had to be expelled. The appropriate technique – needling, moxibustion, drug therapy or abdication – depended on the gravity of the disorder, as Bian Que’s encounter with duke Huan suggests. And as the structure of *Sources and Symptoms* suggests, the appropriate formulas depended on the pulse image. Neither technique nor formula changed for different heteropathic substances. There were no “specifics,” as such remedies were called in Western medicine, no antidotes particular to wind *qi* or cold *qi*. Instead, there were therapies for the specific constellation of symptoms that disease factors had induced in the patient.

Since therapy was independent of cause, and books such as *Sources and Symptoms* and *Formulas Worth a Thousand in Gold* were built around therapy, we should not be surprised that the disease factors that they mention are not arranged in any systematic way. The object of the doctor’s practice was to intervene in a constantly changing experience, and not to identify an entity, so he did not waste time and text trying to define, describe, or categorize specific types of pathogens. The causes of any individual case of illness were incidental to the experience, part of its history rather than its essence.

In later medical literature, categories of causes did become more significant and systematized. In the twelfth century, for example, Chen Wuzhe 陳無擇 published his influential *Three Causes Formulary* (*San yin*

³⁸ *Ishimpō* 醫心方 attributes *jiaoqi* to wind poison and then to hot and wet *qi* in the same section of the same *juan* (*juan* 8, 腳氣所由). This apparent inconsistency reflects the different sources that Tamba incorporated: the assertion about wind poison comes from Sun Simiao’s work and the one about hot and wet *qi* from a seventh-century text on *jiaoqi* by Tang Lin 唐臨.

fang 三因方), which divided disorders into those with “external causes” (heteropathic *qi*), those with “internal causes” (such as an excess of emotion), and those with “neither external nor internal causes” (such as eating too much, spraining a joint, or being attacked by tigers or poisonous insects). Later medical authors writing about *jiaoqi* took up this rubric and divided the disorder into an externally-caused type associated with southerners and an internally-caused type associated with northerners, and even developed northern and southern treatment regimens specific to these two types. In the seventh century, however, when the term *jiaoqi* first took firm root in medical literature, this sort of formalized distinction was still far in the future.

CONCLUSION

As we attempt to understand a disorder the way a doctor in seventh-century China would have understood it, the problem is not that the causes of illness in Chinese medical literature of the period are exotic or incomprehensible to the modern reader. On the contrary, most of them seem quite commonsensical: the unexpected heat, cold, dampness or wind of unseasonable weather; the enervating effects of being sadder or angrier or more excited than circumstances warrant; indulging in too much food, drink, or sex; having a naturally vulnerable constitution. We might understand them, broadly, as environmental, psychosomatic, dietary, behavioral or genetic causes. Even some of the more exotic origins of disease, such as the possession disorders or the *gu* 蠱 witchcraft associated with southern China, can be assimilated as metaphors for infection.

What is more difficult for a modern reader to understand is how little the precise cause of the disease mattered to the doctor treating it. For him, symptom, location, and pulse image influenced diagnosis and therapy more profoundly than did the identity of the agent causing the disease. Since neither a stable set of symptoms nor a consistent cause determined what a disease name meant, we cannot make biomedical sense of the parameters of disease names of this period by reading textual descriptions alone. So much of what a doctor needed to know to treat a case of *jiaoqi* was experiential, not textual, that even such deeply layered descriptions as the ones in *Sources and Symptoms* and *Formulas worth a thousand in gold* can only convey in broad terms how the disorder might have looked. Pulse knowledge, stored as much in the fingers as on the page, provided the definitive clue for treatment purposes. Therefore, what made diagnosis and treatment coherent for

a seventh-century doctor is unavailable to us today – unavailable, that is, to all of us whose ignorant fingertips never learned to discern floating from sinking, sluggish from galloping, or taut from slack in an outstretched wrist.³⁹

The broader point here is that it is worthwhile, when tracing a disease name in ancient texts, to investigate the parameters of disorder first. Taking the time to think more broadly about how the author himself understood illness helps us to avoid thinking that illness names always denoted roughly the same disease, biologically speaking, that they denote in biomedicine.⁴⁰ The case of *jiaoqi* demonstrates that even when a modern disease name has left a paper trail hundreds of years long, tracing the name through texts may not be the same thing as tracing the history of the disease that the name denotes *today*.

LIST OF ABBREVIATIONS

QJYF	<i>Beiji qian jin yao fang</i> 備急千金要方
ZBYHL	<i>Zhu bing yuanhou lun</i> 諸病源候論

³⁹ Put another way, the doctor himself embodied medical knowledge, and when diagnosing, assessed both his own and the patient's experience of the patient's condition. Peng Mu has analyzed this point at length in her article, "The Doctor's Body: Embodiment and Multiplicity of Chinese Medical Knowledge," *East Asian Science, Technology and Medicine* 25 (2006), pp. 27–46.

⁴⁰ This essay is a mirror image of the "naming and framing" literature familiar to historians of medicine, which suggests how instrumental disease names are to the way that people perceive and experience illness. "Naming and framing" arguments have generally followed a single biological condition over time, observing how it has been renamed and reframed; see Charles Rosenberg and Janet Golden, *Framing Disease: Studies in Cultural History* (New Brunswick, N.J.: Rutgers U.P., 1997), and Robert A. Aronowitz, *Making Sense of Illness: Science, Society, and Disease* (Cambridge: Cambridge U.P., 1998). This essay, by contrast, presents a case in which the name of an illness has continued to be used, but the biological condition it denotes has changed.