Special Issue on the History of Chinese Medicine

Introduction from the Guest Editor

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This issue has been many years coming to fruition, for which I owe my fellow contributors and Hans Ulrich Vogel, as journal editor, many apologies as well as deep gratitude for their patience. The original intent of this special issue was to take aspects of the contributors' scholarship that shed, in my opinion, new and important light on the history of medicine in China, and get these articles quickly into print. In spite of the various delays that impeded our progress, it is a testament to these scholars that their contributions are just as path-breaking now as they were when we started, even accounting for the substantial updating that they have been kind enough to provide.

Taking these four essays by chronological time period, the first, by TJ Hinrichs, is a truly magisterial study of the ways in which epidemic diseases were understood in China from the Han dynasty (206 BC-220 AD) through the end of the Song (960-1279). Starting from an observation of Paul Unschuld's, that China always had competing, and coexisting, theories of disease causation, Hinrichs takes the categories of "Warmth" and "Warm Diseases" as a vehicle for investigating this competition. By doing so, she is able to shed new light on a long-standing question in the history of Chinese medicine, which is why Zhang Zhongjing's 張仲景 *Treatise on Cold Damage* (*Shanghan lun* 傷寒論), written towards the end of the Han dynasty, became a canonical medical work only during the Song, nearly a thousand years later.

One major strength of Hinrichs' article is that it engages directly with the western literature of history of medicine, deploying analytic concepts to great effect, and allowing Chinese medical history to be understood according to rubrics applicable to medical history everywhere. For example, social and medical historian Charles Rosenberg wrote influentially about how epidemic diseases could be understood either configurationally—resulting from a disturbance in the normal configuration of climate, environment, and communal life—or as the result of contamination by some disease-causing material substance. Another way of talking about these two modes of disease causation is to say that the first considers disease to be a result of disorders of function, whereas the second understands disease-causing agents to have a real existence independent of their victims. The technical term for this 'having independent existence' is 'ontological reality.' So in the functional-configurational model, there is no need to imagine a disease-causing thing, as the disease is caused by a disruption to the normal environmental conditions. In the ontological-contaminationist model, disease is caused by real, disease-causing agents.

Three explanatory models for the outbreak of epidemic diseases are found in early and medieval medical texts: the first emphasized the injury that the body sustained from exposure to cold during the winter. This Cold Damage, if it did not immediately cause sickness, might generate a toxin that was stored in the body and that would re-emerge in the spring or summer as an outbreak of disease. These were referred to as Cold Damage Disorders. Another category of epidemic described by Chao Yuanfang 巢元方 in his seventh-century *Comprehensive Treatise on the Origins and Symptoms of Diseases* (*Zhubing yuanhou lun* 諸病源候論) was "Seasonally Spread Disorders." Unlike Cold Damage, which was caused by the regular climatic conditions of winter, Seasonally Spread Disorders erupted after a spell of uncharacteristically warm weather in winter, cold or dry weather in spring, cold weather in summer, or wet weather in fall. Thus they were disruptions in the proper configuration of climate, and although irregular, were part of larger cosmological patterns that could be prepared for and sometimes even predicted. However, they were also often agreed to be contagious. This distinguished them from Cold Damage Disorders, which might spread around the body, but did not spread from one body to another. Seasonally Spread Disorders overlapped with a more religious understanding of diseases as "Heaven Spread," a visitation of disease ordered by a displeased Heaven.

The third explanatory model was the one considered least desirable by the administrative elites: Warmth Disorders. Writings on Warmth diseases emphasized a more ontological understanding of epidemic disease, in which infection came from contamination. This understanding of the contagiousness of Warmth Disorders derived from the belief that they were

caused by noxious, pestilential *qi*, which was demonic in origin and resulted in infestations of the body that could be transmitted from one victim to another. The specific forms of such attacks included demonic strikes, demons lodging in the body (a form of possession), infestation as with supernatural “worms,” and encounters with demons in dreams. Additionally, foul-smelling airs, which Hinrichs renders “effluvia” to emphasize their physicality and their differentiation from *qi*, were also capable of transmitting disease. All of these ontological aspects of Warmth Disorders were able to propagate through contamination, making the Warmth epidemics highly contagious. Such explanations clearly overlapped with Daoist texts on disease, which explicitly discussed the “Five Warmth Demons,” and recommended pharmaceutical formulas that were clearly apotropaic.

A major preoccupation of the Song dynasty government was creating cultural unity, something that eventually resulted in the extension of [Neo-]Confucian values to the entire population, not just the elites. In medicine, we see the beginnings of this process in the Northern Song (960–1126) with the concern to correct and transform the “southern” customs of avoiding the sick and turning to shamans for supernatural assistance during epidemics. Already in 1066, we see the publication by the newly-established Bureau for Editing Medical Treatises of an authorized version of Zhang Zhongjing’s 張仲景 *Shanghan lun* 傷寒論 (Treatise on Cold Damage). This book provided empirical analyses of the signs and symptoms of the various manifestations of Cold Damage along a gradient of the three *yang* and three *yin* aspects of the body, and recommended herbal formulas for each. Not only was this an entirely secular understanding of disease, but it was also compatible with a newly fashionable way of understanding climatic influences, namely by following the Five Phases and Six Climatic Influences (*wu yun liu qi* 五運六氣). Thus the Han dynasty medical classic, newly interpreted, reinforced the orthodox configurational understanding of epidemic disease causation. Accordingly, officials stationed in regions where the population believed in the powers of shamans to control the Warmth epidemics, or contagious demonic epidemics transmitted by contamination, rounded up the shamans and required them instead to study the *Treatise on Cold Damage*. Some handed out copies, others had the formulas of the *Treatise* engraved on stone stelae and displayed in the marketplace, explicitly as measures to reform southern customs.

This new analysis of the reasons for the Song administration’s enthusiasm for Cold Damage adds a great deal to our understanding. Certainly, the Song state was concerned to intervene during disease outbreaks on behalf of the people. But the epidemics themselves do not offer a sufficient explanation for the specific enthusiasm for the *Treatise on Cold Damage*’s entirely functional-configurational explanations. Rather, its combination

with the theory of Five Phases and Six Climatic Influences provided a "cosmological framework that conceptually integrated the empire."

In Che-chia Chang's study of the Imperial Medical Academy (*Taiyi yuan* 太醫院), we have another significant contribution to the English-language scholarship on the relationship between medicine and government. Although the Imperial Medical Academy was the only institution in imperial China that examined and certified physicians, there has been very little published about it. Chang takes as his starting-point the contradiction between the Academy's traditional dual role as a supervisory institution for medicine throughout the nation as well as the source of medical care for the palace, and the fact that by the late Qing (1644-1911), it seemed to only function as a source for court physicians. How, he wonders, did this contraction of the function of the Imperial Medical Academy come about?

In answering this question, Chang takes us on a survey of the activities of the Academy through Chinese history, providing much valuable new information. It turns out that in every dynasty since China's medieval period, there was an official government office responsible for medical education as well as for providing and supervising medical care for the imperial family. By the Song dynasty, the central government was standardizing and publishing key medical texts (as is also described by TJ Hinrichs), and dispatching trained medical officers to the prefectures where they supervised local medical schools. The Mongol successor state to the Song, the Yuan dynasty (1279-1368), built out this empire-wide system significantly, funding a network of medical schools, and sending them salaried instructors. During this period, medical practice also became an acceptable occupation for Confucian scholars, and officials at the Imperial Medical Academy had high rank in the civil service administration.

There was significant contraction in the funding and prestige of the Academy during the Ming dynasty (1368-1644), which stopped paying for the regional medical schools and instead encouraged the local schools to send excellent physicians to the central Academy. The best qualified of the Academy physicians would be allowed to serve in the palace, the others had other medical and administrative duties. These medical-administrative functions explain why the Academy was under the supervision of the Ministry of Rites, a position that became anachronistic under the Qing when the functions of Academy physicians shrank still further to concentrate only on serving the imperial family.

Here, under the Qing, we find new regulations that prohibited members of the Imperial Medical Academy from having a private practice or even from attending to court officials without explicit permission. If Academy physicians did treat courtiers, they were required to report on their findings to the emperor. All Academy members were now expected to rotate into palace duties. Prescriptions for the emperor had to be agreed by more

than one physician, and at times the emperor allowed Chinese and Jesuit physicians to work together, so that each would be reporting on the activities of the other. Entry to the Academy was drawn from the ranks of the medical students there, who had to pass stiff exams and have a guarantor within the regular staff. This system favored hereditary families of court physicians, whose sons might start studying medicine in their early teens and who, if outstanding, might make the rank of Imperial Physician to the emperor in their fifties. Promotion up the pyramidal structure came only from within, a system which protected the imperial family with a stable service in which the loyalty of the Chinese doctors treating the Manchu rulers was reinforced by their guarantors and by an absence of other career options, as the Qing prohibited retirement of Academy physicians as well as strictly controlling their activities.

Chang interprets these restrictions on the Qing Medical Academy's functions as reflecting the Manchu rulers concerns for their own safety. Doctors could not treat courtiers without permission in order to limit their ability to participate in court politics. Acupuncture was banned at court in 1822, likely out of concern that the stout acupuncture instruments of the day might be used to assassinate the emperor. The closed and hierarchical system of promotion meant that by the time an Academy physician was admitted to treat the emperor directly, he would be older, very experienced, and always working as a member of a team, never alone. This stability came at the cost of lack of flexibility, however, a situation that was becoming painfully apparent by the end of the dynasty.

From Chang Che-chia's study of medicine at court, we turn to Henrietta Harrison's paper on the medical history of a relatively poor but educated man living in rural Shanxi. Liu Dapeng 劉大鵬 (1857-1942), whose diary was written daily between 1892 and the day before his death in 1942, records many aspects of his own and his family's health, beliefs about illness, and methods of treatment. This fascinating source, described by Harrison with expert attention to context, gives us a rare insight into everyday health and healing practices at a time of great social and medical change.

The most striking thing to emerge from Liu Dapeng's accounts is the way health, disease, and therapy were an inextricable part of the moral order of late Qing and Republican China (1912-1949). When Liu gets sick, he usually ascribes the cause to his own failure to uphold Confucian values, such as failing to mourn his father's death properly, and when a neighbor's wife falls ill and dies, he describes this as a punishment for the sins of the husband. When he recovers from painful sores, he is gratified that the cure must have been a reward for his own virtuous thoughts. When epidemics broke out, Liu saw this as punishment for the moral failings of the community, for which community responses such as sacrifices to the

Plague God were appropriate. Health, like the Confucian world-order, was first a family matter, then a community concern, and lastly the domain of the state.

Within the family, illness was treated first with self-medication, then by appealing for help from the expertise of friends and neighbors, and lastly by paying for professional services. Liu's self-medication generally started with commercial preparations whose main function was to purge, and adjusted the severity of the purging with opium-containing drugs. He used vacuum bowls in a process known as cupping to bring infected blood and pus to the surface of boils, which could then be drawn out with poultices or lanced directly in a form of acupuncture that was performed by a neighbor who knew how to use needles but was not educated enough to know the classical acupuncture points. Liu himself gave out his own favorite medications when they were requested by neighbors, underlining the community relations that were fundamental to health care. Harrison notes that these relations included women acting as healers, and not only in obstetrical/gynecological matters. At other times an educated friend visited sick family members and wrote out classical-style prescriptions to be filled at the pharmacy. All such acts of kindness were recompensed within the moral economy of the village, but rarely in cash, more often in return favors, in kind, or with a celebratory meal.

This kind of community response to disease was far preferable to calling in the professional doctors, whose reliance on patient fees made their motives morally questionable, and whose professional distance made their therapies incommensurable with the moral causes of ill-health. Harrison argues that it was to try to reconcile this contradiction that doctors, when called in, were treated as honored friends, even though the financial relationship stretched the fiction sometimes to breaking-point. When Liu's family members were seriously ill, the medical fees he paid were significant, in a couple of cases enough to put him into debt for the year. Less wealthy families could be reduced to bankruptcy by medical fees in cases of serious illness.

Additionally, it is notable that even an educated man like Liu was not above praying for cures and taking temple remedies by a divinatory process as late as the 1940s at the local Daoist temple. Earlier, in 1901, his parents had also sent him a diagnosis and prescription for his neck pain that had been obtained from a spirit medium via planchette writing. The prescription involved buying drugs that were combined and ingested in much the same way as classical formulas.

During Liu Dapeng's lifetime, the institutions of western medicine were slowly being established in Shanxi, but few of them registered in the central Shanxi village where he lived. The exceptions were vaccination against smallpox, which was successfully integrated into local medical

culture, and the use and promotion of milk products for the very young or the sick. Milk powder and lactose products were widely advertised as medical panaceas, and Liu records that his neighbor injected his wife with lactose when she fell sick after childbirth. Milk products featured alongside a wide array of western-style medical products that began to be advertised in newspapers and sold in pharmacies, with injected preparations, in particular, signaling a new medical modernity.

The institutions of medical modernity originated with the central authorities, which during the political chaos of the Republican era generally meant the provincial capital of Taiyuan rather than the national capital, and were intended to be disseminated in a descending hierarchy towards the villages. As Harrison's insightful analysis of Liu Dapeng's community reminds us, this top-down promotion of modern medical institutions and new models of healthcare violated the moral order that was at the core of village life.

Finally, we come to my own article on the medical career of Ding Fubao 丁福保 (1874-1952). Here, we see several of the themes in our previous articles rearticulated in the medical marketplace of Republican era Shanghai. As a young man Ding Fubao, like so many Confucian-educated scholars of previous dynasties, was hoping for an official position within the civil service. During the upheavals of the last decade of the Qing, it seemed for a while that his success in the first ever qualifying examination in medicine, held in Nanjing in 1908, would lead to such an official position. These hopes were dashed by the Xinhai Revolution of 1911, an event that spelled potential disaster for Ding as a well-connected supporter of the Qing.

In response to these upheavals and his own recurring financial embarrassment, Ding became a capitalist medical entrepreneur. He set up his own publishing company to publish his many medical translations from Japanese, opened a medical clinic in Shanghai specializing in lung diseases (he and his family battled tuberculosis for many years), and even briefly went into the drugs business, producing two proprietary medicines and marketing them aggressively in the Shanghai press, particularly the *Shenbao* 申报. These activities were highly successful: Ding's translations of Japanese medical works quickly made Japanese medical terminology dominant in Chinese, overtaking the many years of effort that English-speaking missionary doctors had put into creating a new medical terminology in Chinese.

Ding's activity as a creator and seller of proprietary remedies has received little attention from historians of medicine, but I argue here that it is key to understanding this period in the assimilation of western medicine. Ding's remedies were expensive, marketed in western-style bottles, but were in fact based on inexpensive Chinese herbal remedies. Like many

other preparations at this time, both western and Chinese in origin, they borrowed the allure of modernity without having to specify their actual contents. In the end, Ding came to be disgusted with this aspect of his medical enterprise. In 1914, and after he had already become wealthy, he stopped producing the drugs, and rededicated himself to only those medical activities that were befitting a *junzi* 君子, a Confucian-style gentleman.

The timing of Ding's retreat from the pharmacy business also coincided with the development of the western-style medical profession in China. In July of 1914, the editorial pages of the *China Medical Journal* lambasted both Chinese and western drug companies for their "indiscriminate selling of drugs in China," and in 1915, Chinese doctors with western medical degrees launched the National Medical Association of China. Because Ding had no such degree, having based his practice on only his success in a 1908 hybrid Chinese-western medical examination of the New Policies era, he was not eligible to become a regular member of this association, even though he was awarded honorary membership. Ding was clearly aware of both these deficits: in addition to ending his drug manufacturing, he also sent his son, Ding Huikang 丁惠康 (1904-1979), to get a western medical degree in Germany.

Picking up on Henrietta Harrison's observation that Liu Dapeng frequently interpreted illnesses as punishment for his own or family members' moral transgressions, we find, perhaps surprisingly, that Ding Fubao was also convinced that he bore a great deal of blame for his own and his family's ill-health. This seems to have co-existed easily with his commitment to the germ theory of disease causation. In several places he voices his guilt for passing on tuberculosis to family members, which he interprets as a sin that requires atonement. The fact that his eldest son suffered from a debilitating mental illness was later interpreted in the Shanghai press as a commentary on Ding's bad karma. Ding's conversion to Buddhism and his extensive philanthropic activities, including medical philanthropy, were fueled by this idea of disease as moral retribution.

Historians of medicine have often treated medicine as an index of cultural change, according to which the increasing acceptance of western medicine in China has become a marker of China's transition to modernity. Yet the persistence of the moral economy of health that we see in the cases of both Liu Dapeng and Ding Fubao suggests that medical change does not necessarily indicate acceptance of the values of a secular, governmental modernity. On the contrary, Ding's enthusiastic promotion of western medicine was part of his commitment to a Chinese moral culture that transcended the commercial modernity of republican-era Shanghai.

Taken together, these papers underscore the importance of medical orthodoxy to the state, both during the expansion of Confucian culture

during the Song dynasty, and again in the modern period. Historically, the Chinese state has exerted itself many times to define acceptable forms of spiritual activity. This is not the same as secularization: some religious activities were always approved, while officials attempted to eradicate others because they threatened the state's power and authority. During the Song, concerns about social and economic stability led the state to promote the empirical remedies of the *Treatise on Cold Damage* and deemphasize the dangers of contagion, because contagion was acknowledged to be caused by supernatural forces beyond the control of the state administrators. During the Qing and republican eras, efforts to define medical orthodoxy were defined by ethnic (Han-Manchu) and international relations, rather than a primary commitment to a transcendent scientific "truth." These papers may be taken as a reminder that all truth-claims need to be regarded with skepticism and investigated with an eye to the power relationships involved.

The Catchy Epidemic: Theorization and its Limits in Han to Song Period Medicine¹

TJ Hinrichs

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Abstract: This essay explores functional-configurational and ontological-contaminationist etiological distinctions and the social and political stakes behind them through writings on Warmth disorders/diseases and Warmth epidemics (*wenbing* 溫病, *wenyi* 溫/瘟疫) in the period from the Han to the Song dynasties. It shows that the functional-configurational and ontological-contaminationist frameworks often coexisted, competed, or alternated with each other, offering not only different ways of looking at the world, but authorizing different action in it. Examination of Northern Song (959-1126) campaigns to stop the practice, identified with “southerners,” of avoiding contact with and thereby neglecting the sick, and of Southern Song (1127-1279) controversies over contagion, reveals ideological bases for literati-officials’ preference and support for functional over ontological theories.

Twenty-five years ago, Paul Unschuld argued that then-current scholarly and popular understandings of Chinese medicine had been shaped by the selection, out of the heterogeneous breadth of traditional Chinese health care modalities, of those conceptual systems that suited the “cognitive

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¹ This article is drawn in part from TJ Hinrichs, Chapter 6, “Epidemics and Contagion: Resources for Response and Debate,” in Hinrichs (2003), PhD Diss., pp. 130-202. I would like to thank Bridie Andrews, Meredith Evancie, Kian Magana, Kathleen Finnegan, Mark Elvin, and two anonymous readers for feedback on earlier drafts.

aesthetics of European culture and western science.”² The common western view identified Chinese healing with the “medicine of systematic correspondence” based on the *Huangdi neijing* 黃帝內經 (Inner Canon of the Yellow Emperor) corpus, mainly characterized by understandings of illness as physiological dysfunction. This was a “functional” modality that, rather than eradicating diseases or pathogens from the body, diagnosed individually specific patterns of systemic disorder, and focused on the maintenance and restoration of vitality. Neglected by westerners were China’s rich repertoires of “ontological” approaches that treated an ailment as a “‘being’ of itself, or ... a definable pathological agent,” and which tended to localize disease to particular parts of the body.³ Unschuld pointed out that the three epistemological approaches were also, historically (and ironically), properties of European medicine. Humoral and constitutional approaches, for example, operated by functional principles, and germ theory by ontological ones. He emphasized that

despite occasional explicit antagonisms—in China as in Europe, the empirical, the individualistic-functional, and the localistic-ontological approaches have rarely been clearly separated; these three ‘strategies’ have often supplemented and mutually penetrated each other, and to a significant degree, it is only our epistemological analysis that cuts them apart.⁴

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² Unschuld (1987), p. 1023.

³ Unschuld (1987), p. 1025.

Unschuld also identified a third modality, “pragmatic,” but this essay focuses on “functional” and “ontological” theories.

Where possible, this article translates *bing* 病 as “disease” to convey the sense of an ontologically distinct entity; as “disorder” to convey the sense of a state of dysfunction; and as “illness” or a similar term when to convey the sense of a phenomenological experience.

The functional-ontological dichotomy is similar to Owsei Temkin’s distinction between physiological and ontological models, which has been influential among western medical historians. See Temkin (1977), especially chapter “The Scientific Approach to Disease: Specific Entity and Individual Sickness,” pp. 441-455.

One of the anonymous readers to this article pointed out that the term “ontology” is a peculiar one for distinguishing epistemologies based on discrete entities: the *qi* and the physiological systems of functional medicine also, ontologically speaking, are taken to exist. “Agential” would capture the sense that is the primary interest of this article: diseases caused by distinct sentient entities. Ontological approaches in medicine, though, also target diseases, themselves treated as distinct entities, as the objects of analysis and therapy. See Unschuld (1987), p. 1025.

⁴ Unschuld (1987), p. 1026.

Unschuld went on to argue that the proclivity for making such epistemological distinctions comes from a western tendency to distinguish conceptual systems exclusively of each other, which he relates in part to the influence of the Catholic church's theological activities, whereas in China intellectuals preferred to reconcile disagreement in terms of shared common ground.⁵

Today, after extensive critique of such generalized contrasts between China and the west for, among other sins, essentializing cultures, historians tend to avoid them. The comparative approach, though, can generate new and useful perspectives. The differentiation of "functional" and "ontological" modalities turns out to help elucidate not only modern westerners' partiality, but the stakes behind past Chinese medical writers' preferences for certain explanations. Unschuld's short article also brings attention to the institutional contexts that encourage the clarification and rejection of difference as opposed to its elision and incorporation—both of which strategies, on closer examination, we find in historical writings on Chinese medicine. This essay explores functional and ontological etiologic distinctions and the social and political stakes behind them through the case of writings on Warmth disorders/diseases and Warmth epidemics (*wenbing* 溫病, *wenyi* 溫/瘟疫) in the period from the Han to the Song dynasties.⁶

As a type of epidemic, Warmth was often singled out for its virulence, something that historians have related to its identification with diseases of the hot south, devastating to immuno-naïve troops and settlers from the

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⁵ Unschuld, (1987), p. 1027.

⁶ Technical medical names of disease/disorder categories like Warmth, and of medical physiological terms like Liver (for functional Liver system) will be capitalized.

Some scholars translate "Warmth" as "Warm," or vary between the two depending on whether the term is used as an adjective or noun; I translate it as "Warmth" throughout. Although the translation of "Warmth disorders" for *wenbing* implies that *wenbing* are caused by Warmth, in some cases the cause is actually Cold; in some cases *wenbing* is, as we will see, caused by non-climatic factors; and in some the etiologies are ambiguous or contradictory. "Warmth" in these cases, could derive from the climatic quality of the season (spring) or region (south) in which the ailment appears, or to the symptom of fever; the sources are ambiguous. When referring explicitly to the symptom of fever, though, early medical texts usually use *re* 熱.

In the last decade and a half, Warmth Disorders and Warmth Epidemics have had some prominence both in scholarly literature on Chinese medical and religious history and in writings on Chinese medicine. See, for example, Hanson (2011); Hanson (1998); Hanson (1997); Benedict (1996), pp. 101-121; Lee (1995); Katz (1995); Lee (1993a).

north.⁷ The disease category became curiously marginalized and even controversial in the Song period (960-1279 AD), a time when epidemics became a prominent object of state medical relief and medical theorization, and southern healing customs became targets of social reform policies.⁸ Warmth in fact had long posed special problems for epidemiological theorization, and the ways in which those became conspicuous in the Song is revealing of the social and political considerations that shaped physicians' and literati's epistemological choices.

Warmth in Functional-Configurational Models of Epidemics

Early Chinese theories of epidemics extrapolated from functional and ontological logics, producing what we can, following Charles Rosenberg, label configurational and contamination models. In configurational views, "[a]n epidemic was the consequence of a unique configuration of circumstances, a disturbance in a "normal"—health-maintaining and health-constituting—arrangement of climate, environment, and communal life."⁹ Contamination, in contrast, involved "the transmission of some morbid material," usually from one individual to another.¹⁰ Ontological-contamination models, to be discussed at greater length below, posited the movement of discrete pathological agents from person to person.

Configurational models viewed epidemics as products of climatic irregularities. As in functional medicine, the dominant metaphors were resonance and flow: Individual health was a state in which *qi* 氣 harmonized with the appropriate phases of the macrocosm, moving through the body in regular circuits; population health was fostered when climates and seasons followed cosmically-patterned cycles. Illness was a state in which *qi* was out of phase, was stagnant or flowed too fast or in the wrong

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⁷ Lee (1993a), pp. 423 ff; Lin (1995a).

⁸ On state policies toward and medical theorization of epidemics, see Goldschmidt (2009).

On Song campaigns to "transform" southern healing customs, see Hinrichs (2003).

⁹ Where configurational theories are tied to canonical medicine-based functional physiology, I use the compound term "functional-configurational." To bring attention to the tight connection between ontological etiologies and theories of contagion, I use the compound term "ontological-contaminationist."

¹⁰ See "Explaining Epidemics," in Rosenberg (1992), pp. 293-295. On contamination models of epidemics in Chinese medical traditions, see below.

direction, or was replete or depleted in a particular system; epidemics were produced by unseasonal or extreme temperatures, levels of atmospheric moisture, and winds. Generally, *qi* was healthy and “regular” (“upright,” “correct,” “orthopathic” – *zheng* 正), or was “noxious” (“askew,” “oblique,” “deviant,” “heteropathic” – *xie* 邪), not in and of itself but in contingent relation to its function or dysfunction in the microcosm of the person.¹¹ In contrast to western humoral concerns with plethora and excess, functional-configurational Chinese medicine was critically concerned with invasion of the body through the pores and orifices, whether by specified climatic influences such as Wind or Cold, or more generalized noxious (*xie*) *qi*.¹²

In accord with its emphasis on function and physiology, and despite its attention to external climatic factors, there was no direct discussion of epidemics as such in those portions of the *Inner Canon of the Yellow Emperor* considered to survive from before Wang Bing 王冰 (c. 710-805) edited it in the eighth century.¹³ *Yi* 疫 and *minbing* 民病 (“disease of the populace/commoners”), generic terms for epidemics, do not appear at all. *Li* 癘, which in later periods usually referred to more virulent epidemics, appeared three times in the *Inner Canon* to identify diseases with Wind etiologies and some symptoms similar to leprosy (also known as “Grand Wind” (*dafeng* 大風)).¹⁴ *Nüe* 瘧, whose most prominent symptoms included alternating chills and fevers, thus often translated as “Intermittent Fevers,” was also linked to the etiology of Wind.¹⁵ The *Inner Canon* also laid out the disease-producing climatic conditions that, while not then explicitly marked as epidemic, suggested themselves as such for later writers:

When there is damage by Cold in winter, in spring there
will necessarily be warmth [febrile] disorders (*wenbing*).
When there is damage by Wind in spring, in summer it

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¹¹ For discussions of the etymologies and technical meanings of *zheng* and *xie*, see Lo and Schroer (2005); Porkert (1973), pp. 52-54, 172.

For accounts of the emergence of functional medicine in the Han period, see, for example, Hsu (2010); Lo (2001); Hsu (2001); Li (2000); Harper (1998), pp. 3-109; Sivin (1995); Unschuld (1985), pp. 51-100.

¹² For this contrast humoral and Chinese medicine, see Kuriyama (1999). On the etiology of Wind in Chinese medicine, see Hsu (2007); Kuriyama (1999), pp. 233-270; Kuriyama (1994).

¹³ Sections 66-71 and 74 of *Huangdi neijing suwen*, which are widely considered to be at the earliest Tang additions to the text, discuss epidemics in relation to the system of Five Circulatory Phases and Six Climatic Influences (*wuyun liuqi* 五運六氣). See below.

¹⁴ *Li* appears only three times in the *Huangdi neijing suwen yishi*, sections 35-36.

¹⁵ *Huangdi neijing suwen yishi*, sections 35-36.

will generate diarrhea. In summer when there is damage by Summer-Heat, in autumn there will necessarily be intermittent fevers; in Autumn when there is damage by Damp, in winter it will generate coughs.¹⁶

In later works of this tradition, damage by cold, the first item in this list, rose in salience as the disease category Cold Damage, and became the primary focus of epidemiological interest in functional-configurational medicine.¹⁷

Zhang Zhongjing 張仲景 (142-220) said that he wrote *Shanghan lun* 傷寒論 (*Treatise on Cold Damage Disorders*) to help people avoid high death rates due to epidemics such as those of the first decade of the Jian'an Period (196-220 AD). During that time two-thirds of his relatives, numbering over 200, succumbed to disease, seven tenths from epidemic fevers. Except for this account in his preface, just as in the *Inner Canon*, the text as it comes down to us eschewed mention of epidemics, and rarely mentioned external factors except as they might exacerbate a condition, for example in the case of Wind.¹⁸ Rather, it concentrated on analyzing myriad variations in Cold Damage pathologies according to the Three Yin and Three Yang physiological modalities, and making fine distinctions among manifestations in

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¹⁶ *Huangdi neijing suwen yishi*, 5.35. "Damage" (*shang* 傷) is sometimes translated as "injury."

¹⁷ *Wenbing* came to designate a sub-category of Cold Injury, "Warmth Disorders," as here a spring manifestation of winter damage by cold. Given the symmetry of this *Inner Canon* passage, *wenbing* should be read as analogous to "diarrhea," "intermittent fevers," and "coughs"—as referring to characteristic symptoms. Thus, *wenbing* here might best be read as an alternate term for febrile disorders (*rebing* 熱病), identified with Cold Damage (*shanghan* 傷寒) later in the work. *Huangdi neijing suwen yishi*, sections 31-33. Section 31 opens with the general statement, "The Yellow Emperor asked, 'Now, as for Febrile Disorders, all are of the Cold Damage category.'" *Huangdi neijing suwen yishi*, 190.

In contrast to this passage, in which differences between symptoms are as obvious as differences between seasonal etiology, later works in the tradition distinguished seasonal disorders from each other not by gross symptoms, which they shared—mainly fever, chills, sweating, and aches—but by their climatic etiologies.

¹⁸ Between this text's first appearance at the end of the Han and the Song, its transmission was obscure. The text that we have now was reorganized by Wang Shuhe in the third century and reconstructed again in the eleventh century. See Goldschmidt (2009), pp. 95-99.

pulse; in the intensity, quality and location of aches; and in the timing of fever, chills, and sweating.¹⁹

While the *Inner Canon* made broad generalizations about the symptoms characteristic of each seasonal disorder and Zhang Zhongjing guided the physician's subtle differentiation of individual cases, later works did not distinguish between seasonal epidemics by symptom—all shared fever and aches. For lay people, seasonal epidemics were fundamentally a single disease.²⁰ Not surprisingly, though, given the centrality of yearly cycles to the cosmologies that underlay classical medical theory as well as political ideology and religious ritual, post-Han medical theorists, especially those with close ties to imperial courts or ruling elites, gave close attention to seasonal climatic factors in their analyses of febrile epidemics.

For example, *Zhubing yuanhou lun* 諸病源侯論 (*Comprehensive Treatise on the Origins and Symptoms of Diseases*), the nosological work that Medical Erudite (*taiyi boshi* 太醫博士) Chao Yuanfang 巢元方 presented to the Sui dynasty throne in 610 AD, greatly elaborated on and systematized the climatic etiologies of seasonal disorders.²¹ Chao devoted chapters seven through eleven to disorders due to Seasonal *Qi* and epidemics.²² Chao also gave theoretical justification to the primacy of the Cold Damage category: while the *qi* of each season, including spring Warmth, could injure, Cold Damage stood as the primary and defining type, as was apparent in the organization of this portion of the book: 1) Cold Damage began the section; 2) it had two whole chapters devoted to it instead of one or a section of one, as for other categories; 3) it retained a distinctive terminology, the disorders of other seasons being simply “disorders” or “diseases” (*bing* 病),

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¹⁹ These are Greater Yin (*taiyin* 太陰), Lesser Yin (*shaoyin* 少陰), Reverting Yin (*jueyin* 厥陰), Greater Yang (*taiyang* 太陽), Yang Brightness (*yangming* 陽明), and Lesser Yang (*shaoyang* 少陽), and correspond to various Channels. The six Yin-Yang modalities are laid out in *Huangdi neijing suwen yishi*, section 6.

²⁰ See, for example, Ge Hong's comments quoted below.

²¹ It is the first known work to attempt a comprehensive categorization of diseases along with discussions of their origins and symptoms. Its definitions have served as the starting points for medical works from the 992 AD *Taiping shenghui fang* 太平聖惠方 (Taiping Era Formulae of Sagely Grace) to modern “Traditional Chinese Medicine” dictionaries and textbooks.

²² Chapters seven and eight are on Cold Damage Disorders, chapter nine on Seasonal *Qi* (*shiqi* 時氣) Disorders and Heat (or Febrile) (*re*) Disorders, chapter ten on Warmth (*wen*) Disorders and Epidemics (*yili* 疫癘), and chapter eleven on Intermittent Fevers (*nüe*). I include Intermittent Fevers here among Seasonal *Qi* because of Chao's description of them as an autumnal disorder resulting from injury by Summer-Heat in the summer.

not “damage” (*shang* 傷).²³ The text also gave this primacy explicit theoretical justification:

The Classic says that Spring *qi* is warm (*wen*) and mild.²⁴ Summer *qi* is hot. Autumn *qi* is clear and cool. Winter *qi* is cold. This then is the progression of the correct *qi* (*zhengqi*) of the four seasons. In the winter season it is severely cold and the myriad types of things store deeply. The Noble Man (*junzi* 君子) keeps himself firmly closed in, and therefore is not injured by cold. Those who contact [the cold] then become injured by it. Injury by the *qi* of the four seasons in all cases can become disease. Yet Cold Damage can become toxic because it is the most deadly and violent (*shali* 殺厲) *qi*.²⁵ In those that immediately become sick, it becomes Cold Damage. In those who do not immediately become sick, the Cold toxin is stored inside the flesh and bones. When spring comes, it changes into Warmth Disorder (*wenbing*). In the summer, it changes into Summer-Heat Disorder (*shubing* 暑病). ... In all cases it is brought about by having contacted (*chumao* 觸冒) [Cold] in the winter season.²⁶

Unlike the *qi* of other seasons, then, Cold *Qi* was particularly virulent and could develop into a toxin that remained dormant, emerging later in the year. While in the *Inner Canon* passage seasonal factors acted symmetrically, in Chao's work it was only Cold that laid dormant.²⁷

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²³ *Zhubing yuanhou lun jiaozhu*, pp. 216-357.

²⁴ I did not find this passage in extant recensions of *Inner Canon* texts. This passage does appear in the fifth century text *Xiaopin fang* 小品方, which comes down to us only as excerpted in other works. As quoted in the *Waitai miyao fang* 外臺祕要方, 752, it cites the “Great treatise on Yin and Yang,” which could correspond to section 5 of the *Suwen*. However, this passage is not there. *Xiaopin fang xinji* 小品方新輯 (1993), 60. The passage also opens the second chapter of the *Shanghan lun zhujie* 傷寒論注解 (1983-1986), 2.1. While it appears to have been in an edition of the *Shanghan lun* consulted by Cheng, it is not in the 1066 Bureau for Editing Medical Treatises edition of the *Treatise*, and is not in Zhang Zhongjing's *Jingui yaolue* 金匱要略.

²⁵ The annotators suggest that it is “deadly and violent” because of the extreme Yin nature of Cold. See *Zhubing yuanhou lun jiaozhu*, 230, fn. 4.

²⁶ *Zhubing yuanhou lun jiaozhu*, 7.217-218.

²⁷ *Zhubing yuanhou lun jiaozhu*, 7-11 *passim*. This is even true of Intermittent Fevers (*juan* 11).

Chao Yuanfang also distinguished Cold Damage from “Seasonally Spread” (*shixing* 時行) disorders both in severity and in kind:

[Cold Damage disorders that change into Warmth or Summer-Heat Disorders] are not the *qi* of Seasonally Spread [disorders]. As for Seasonally Spread [disorders], these [happen when] in the spring season it should be warm yet to the contrary it is cold; in the summer season it should be hot but to the contrary it is cold; in the autumn season it should be cool but to the contrary it is hot; in the winter season it should be cold but to the contrary it is warm. It is not the season for it, yet there is that *qi*. Because of this, within one year, many illnesses resemble each other without regard to youth or age. This, then, is Seasonally Spread *qi*.²⁸

In contrast to the Cold Damage pattern, then, in which the *qi* normal to a given season caused sickness, in Seasonally Spread disorders qualities of *qi* appeared when they should not. The *Suwen* 素問 (*Plain Questions*) passage and Chao’s Cold Damage suggested dangers built into the correct pattern of seasons: Cold, Wind, Damp, and Summer Heat from which people should protect themselves in turn. Seasonally Spread *qi* was the product of climate gone awry, suggesting a category more akin to disasters such as flood and drought. In Han political theory, this potentially pointed to imperial caprice or negligence. It continued to do so in the Song, although theoretical innovations suggested that these irregularities, too, were built into cosmological patterns, not necessarily departures from them; and hence they might be predictable—and something for which you could prepare if you could get the calculations right.

Thus, where Zhang Zhongjing carefully analyzed the varied pathological courses of Cold Damage disorders, Chao Yuanfang gave primacy to external etiologies, and focused on distinctions among different varieties of seasonal disorder.²⁹ Tang and Song formularies (*fangshu* 方書) rarely matched Zhang’s and Chao’s works in making fine categorical distinctions, and in some ways gave even more prominence to Cold Damage. In his *Beiji qianjin yaofang* 備急千金要方 (*Priceless and Essential Formulae for*

²⁸ *Zhubing yuanhou lun jiaozhu*, 279-280. Nearly the same passage also appears on 218.

²⁹ Chao made less subtle distinctions among manifestations of seasonal illnesses. He focused on the strength, location, and timing of fevers, chills, sweating, and aches, and related them more broadly to the movement of the diseases from surface to interior, and from top to bottom of the body. *Zhubing yuanhou lun jiaozhu*, 7-11 *passim*.

Preparing for Emergencies), Sun Simiao 孫思邈 (581?-682?) did not treat different varieties of climatic *qi*-based disorders separately, but included all within two chapters on Cold Damage.³⁰ *Waitai miyao fang* devoted its first two chapters to Cold Damage, and in the Song state's encyclopedic compendium *Taiping shenghui fang* it was the first disorder category discussed, and the one with the most chapters devoted to it.

Zhang Zhongjing's work on Cold Damage received limited attention before the Song.³¹ In 1066 the Bureau for Editing Medical Treatises (*jiaozheng yishuju* 校正醫書局, established in 1057), issued a sparingly annotated edition, fueling – and perhaps sparking – a resurgence of interest in the text and its approach to treatment.³² This was reinforced by a vogue for analyzing epidemics and Cold Damage disorders according to the theory of Five Circulatory Phases and Six Climatic *Qi* (*wuyun liuqi* 五運六氣, hereafter “Five Phases and Six *Qi*”).³³ This cosmological system was based on calculating correlations between the ten celestial stems and twelve terrestrial branches calendar, the Five Phases, the Six Climatic Influences, and was distinctive from other divinatory and calendrical systems for its further correlation with the Three Yin and Three Yang modalities of Chinese medicine, those by which Zhang Zhongjing had organized his treatments of Cold Damage.³⁴ It had many applications, including weather prediction and geomancy, but its primary employment and development was in the field of medicine.³⁵ Here, it provided an elaboration of configurational disease etiology as applied in particular to seasonal epidemics, often treated under the “Cold Damage” rubric. While the *Inner Canon* and Chao Yuanfang had been concerned with general theories of etiology, Five

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³⁰ All of the discussions of these chapters were dominated by configurational climatic *qi* etiologies, functional descriptions of pathology, and therapies of sweating, purging, and needling. *Beiji qianjin yaofang*, 9.173-175.

³¹ It was rarely mentioned, and apparently hard to come by. Sun Simiao reported that “Jiangnan doctors keep [Zhang] Zhongjing's main formulae secret and do not pass them on.” *Beiji qianjin yaofang*, 9.187.

³² Goldschmidt (2009), pp. 69-102.

³³ Catherine Despeux attributes increased interest in Zhang Zhongjing's *Shanghan lun* to the consonance between its approach and Five Phases and Six *Qi* theory, particularly the former's analysis of Cold Damage disorders according to stages based on the Three Yin and Three Yang modalities. Despeux argues that in the Song period this approach came to overshadow an alternative canonical tradition that organizes pathology around the functional Visceral systems. See Despeux (2001), pp. 146-148.

³⁴ These identify the Channels. For a fuller description of the system, see Despeux (2001), pp. 122-128.

³⁵ Despeux (2001), pp. 136-138.

Phases and Six *Qi* theory offered the hope of prediction and thereby control.

Although some have dated Five Phases and Six *Qi* theory as early as the Han, Catherine Despeux finds scant evidence for its development in medical theory before the eleventh century.³⁶ Besides the reputed successes of its practitioners, interest in cosmology in literati circles may have contributed to the system's ultimate acceptance.³⁷ For example, the physician Pang Anshi 龐安時 (fl. 1080-1100), famous in part for his associations with the widely celebrated literati Su Shi (1037-1101 蘇軾) and Huang Tingjian (1045-1105 黃庭堅), incorporated it into his treatise on Cold Damage disorders.³⁸ Scholar-official Shen Gua 沈括 (1031-1095) also touted its accuracy and advocated its use in medicine.³⁹

The system achieved official prominence in 1099 when the Director of Studies in the Imperial Medical Service Liu Wenshu 劉溫舒 presented to the court his *Suwen rushi yunqi lun'ao* 素問入式運氣論奧 (Seasonal Influences as Formalized in the Plain Questions).⁴⁰ In the Chongning period (1102-1107) it became an imperial medical examination topic.⁴¹ The system is laid out with diagrams in the first two of the 200 chapters of the

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³⁶ Its earliest possible appearance is in the *Huangdi neijing suwen*, chapters 66-71 and 74. Based on their absence in seventh century editions, and textual differences with the rest of the work, the Bureau for Editing Medical Treatises editing team thought these chapters might have been inserted by Wang Bing (c. 710-805) in his 762 edition. A tenth century text develops the system and applies the system to calendrics, divination, and pharmacotherapy. The theory is absent from tenth-century medical collections in which we would expect to see it if it were current, and the first texts really developing it as medical theory date to the eleventh century. Catherine Despeux therefore finds it "prudent to date its development in the field of medicine to no earlier than the eleventh century." Despeux (2001), pp. 128-131.

³⁷ Despeux makes this link to the "cosmological speculations of figures such as Zhou Dunyi (1017-73) and Shao Yong." Despeux (2001), p. 134. There was also scepticism of the divinatory or over-deterministic uses of this system among both literati and physicians. See Despeux (2001), pp. 138-143. On interest in the Song period in cosmology and divination, and scepticism of the latter, see Smith (1990).

³⁸ For accounts of these and other practitioners of Five Phases and Six *Qi* medicine, see Despeux (2001), pp. 135-138.

³⁹ On Shen Gua's advocacy for this system in medicine, see Despeux (2001), pp. 138-141. On his use of it to predict rain, see pp. 136-137.

⁴⁰ Despeux (2001), p. 122; Okanishi (1969), pp. 60-64.

⁴¹ *Songshi*, 157.3689. Despeux dates its adoption in the examinations to 1076, when the Imperial Medical Service was expanded. A treatise on it by Hao Yun was reported to have been presented to court. However, this *Songshi* passage dates this particular examination topic to the Chongning Period. See Despeux (2001), p. 138.

imperialy-commissioned *Shengji zonglu* 聖濟總錄 (Comprehensive Record of Sagely Beneficence, 1118).⁴² In the twelfth and thirteenth centuries, this system was further developed by such prominent medical figures as Chen Yan 陳言 (fl. 1161-1174), Liu Wansu 劉完素 (1110-1200), and Zhang Congzheng 張從正 (c. 1156-1228) to explain and treat epidemics.⁴³

In sum, by the Song, functional-configurational medical traditions had granted special status to Cold Damage disorders as especially virulent and important types of epidemics. During the Song, Five Phases and Six *Qi* theories, which shared through the Six *Qi* modalities a strong conceptual link to Zhang Zhongjing's seminal work, became the dominant focus of medical theorization, often under the rubric of Cold Damage. What motivated so much attention to Cold Damage and related frameworks? As Asaf Goldschmidt has pointed out, epidemics were a major concern of the expanding medical relief bureaucracy, and Cold Damage and Five Phases and Six *Qi* theories offered canonically-authorized, sophisticated approaches to medicine that would have appealed to scholar-officials and to physicians such as Liu Wansu who were eager to demonstrate their erudition.⁴⁴

Impetus also came from a series of campaigns, undertaken from the early decades of the Song, to eradicate what officials deemed to be pernicious southern healing customs, including avoidance of the sick for fear of contagion and shamanic healing.⁴⁵ "Shamans" (*wu* 巫), despite being granted roles in the official ritual system as late as the Tang, appearing as romantic or bucolic figures in literature, and continuing to receive patronage from all levels of society, had also long been anathematized by advocates of stricter religious or medical orthopraxy. Buddhist and Daoist proselytizers condemned shamans for their "bloody" animal sacrifices and for worshipping malevolent spirits.⁴⁶ In 225 Emperor Wen of the Wei kingdom in the north defined shamans as officiants of cults that had not

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⁴² *Shengji zonglu*, vol. 1, 1-169.

⁴³ Despeux (2001), pp. 143 ff.

⁴⁴ Goldschmidt (2009), pp. 69-102.

⁴⁵ The Northern Song especially was notable for a political culture of activism that drove the expansion of state programs in social reform and in medical relief, education, and publishing. The two arenas were not unrelated, and they converged in efforts to culturally integrate the south, then still considered semi-"barbaric," through the promotion of medicine. To an important extent, it was not only official interest in medicine that generated concern over southern customs, but concern over unifying customs that generated official interest in medicine. For fuller development of these arguments, see Hinrichs (2003).

⁴⁶ Stein, (1979); Lin Fu-shih (1994), pp. 29-30, 240-278.

been included in the official registers.⁴⁷ In such contexts, “shamans” came to stand not necessarily for particular types of religious specialists, but for the antitheses of officials, priests, and physicians. With Song policies to reform southern healing customs, for the first time official policy treated shamans as illicit not in their general ritual capacities but in their specific therapeutic ones.⁴⁸

Around 1070, on the heels of the Bureau for Editing Medical Treatises’ 1066 publication of Zhang Zhongjing’s *Shanghan lun*, Cold Damage came to the fore as an officially approved alternative to shamanic healing. Luo Shi 羅適 (1029-1101), the District Defender of Tongcheng in Huainan, found himself faced with a populace who in their “common customs were deluded by shamans and did not trust in medicines.”⁴⁹ He summoned physicians to consult and collate formularies,” producing *Shanghan jiusu fang* 傷寒救俗方 (Formulae on Cold Damage to rescue customs). This he “engraved on stone in order to rescue misguided customs.”⁵⁰ Around the same time, again specifically invoking Cold Damage, Qianzhou (in modern Jiangxi) Prefect Liu Yi (1015-1091) responded to the problems of local customs by commissioning the similarly titled *Zhengsu fang* 正俗方 (Formulae to Correct Customs):

Because [Qian’s] land was near the lower Ling Mountains and inclines toward the southeast, it has an abundance of Yang *qi*, its seasons and weather are unbalanced, and the people get a lot of epidemic diseases. The folk customs are ignorant. Because they trust in shamans (*wu*) and worship demons, [Liu Yi] gathered together physicians and made the *Zhengsu fang*, solely discussing Cold Damage disorders. He registered all of the shamans under his jurisdiction, getting over 3,700 people [one shaman for every 26.5 households].⁵¹ He restrained (*le* 勒)

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⁴⁷ *Sanguo zhi*, 2.84.

⁴⁸ For a fuller treatment, see Hinrichs (forthcoming), *Shamans, Witchcraft, and Quarantine*, Chapter Four.

⁴⁹ This would have occurred between Luo Shi’s receipt of the *jinshi* degree in 1065, and his advancement from district magistrate to higher office in 1075. Luo Shi was from Ninghai, Tai Prefecture, Liangzhe Circuit, and was also known for his handling of water works. Chang Bide 昌彼得, et al. (eds.) (1984), 5.4273; *Xu zizhi tongjian changbian* 續資治通鑑長編, 264.17a.

⁵⁰ Okanishi (1969), p. 454. Also see *Zhizhi shulu jieti*, 390.

⁵¹ The total number of households recorded for Qian in 1078 was 98,130. See Liang Fangzhong (1980), p. 145.

them, and gave his *Formulae* to each of them so they would make medicine their occupation.⁵²

Luo Shi and Liu Yi are just two among over two dozen surviving recorded cases of Northern Song official campaigns against southerners' preference for shamans over medicine, avoiding contact with sick relatives for fear of contagion, or general ignorance of medicine. Besides commissioning and distributing medical texts, local officials and the court issued exhortations to use medicine rather than neglecting ill relatives, banned shamanic healing, and rounded up shamans and destroyed their shrines. By 1070, those campaigns were either winding down or had become too commonplace to merit a place in official histories.⁵³ Luo Shi's and Liu Yi's Cold Damage-focused interventions stood out, and perhaps therefore merited recording, for their specific deployment of Cold Damage medicine.

The nature of Cold Damage's oppositional utility against southern healing customs was left unexplained, perhaps because, for historians, it was too obvious. A century later, though under the Southern Song (1127-1279), the medical issues became the focus of analysis and debate. It was a time when officials were intervening less in local lives, and in the arena of social reform elites were turning their energies increasingly to sub-official local efforts. Concerns over southern customs continued, but as an object of literati debate and gentry activism. Cheng Jiong 程迥 (*jinshi* 1163)⁵⁴ produced an entire treatise, *Yijing zhengben shu* 醫經正本書 (Book on the Correct Foundations of the Medical Canons, 1176), whose central concern was with the "rustic customs of Jiangnan" where "they trust in shamans and do not trust in physicians. Relatives abandon [the sick for fear of demonic contagion], and many die."⁵⁵ He contrasted this situation with the north (for Cheng a nostalgic maneuver; the north then being ruled by the

⁵² *Duxing zazhi*, 3.23-24. Also see *Songshi*, 334.10728.

⁵³ See Hinrichs (2003), Chapter 2 and Appendix 1.

⁵⁴ Styled Kejiu 可久. Person of Ningling District, Yingtian Superior Prefecture, Jingdong W. Circuit. His family fled the Jin invasion and came to reside in Yuyao District (in modern Zhejiang). He served as Magistrate of Taixing District (in modern Huainan); and (in modern Jiangxi) Dexing, Jinxian, and Shangrao Districts. *Songren zhuanji*, 4.3005.

⁵⁵ While his treatise survives, his efforts were of limited success. Zhu Xi, who also corresponded with Cheng regarding interpretations of the *Yijing*, rejected Cheng's arguments against contagion. Rather, Zhu reasoned that if you want people to change their customs, if you deny contagion, which clearly does exist, no one will listen to you. Rather, you should acknowledge contagion, but persuade people to behave morally (care for their sick relatives) despite it. *Huian wenji*, 71.16b-17. For a discussion, see Hinrichs (2003), Chapter 7.

Jin regime) where “relatives never part from the sides [of the sick]” and people “trust in physicians and do not trust in shamans.”⁵⁶

Cheng relates these customs to the view that disease is contagious.

Human life is of the utmost value. How is it that people disrespect it to the point that they put the whole world in error, injure *mores*, corrupt customs, and sever people's allotted life spans? And yet physicians hang their heads and comply, none daring to point out where people are wrong, as when relatives are critically ill and people wildly call it contagion (*chuanran* 傳染), then abandon each other and sever ties. The ancients did not have this. The medical canons do not speak of it.⁵⁷

Most of the text consisted of arguments against contagion, pitting against it the view that epidemics were best understood in the framework of Five Phases and Six *Qi*, and were caused by injury from Cold or from unseasonal *qi*.⁵⁸

For Cheng Jiong, and presumably for Luo Shi and Liu Yi, functional-configurational medicine was a powerful alternative to shamanic healing, to demonic etiology, and to contagion. What made it so? – By locating the source of epidemics in climatic conditions, it denied the agency of demons, the utility of shamans, and the danger of sick bodies. From the perspective of the imperial bureaucratic state and the ideologies that tied literati elites to it, configurational views of epidemics were furthermore useful for rising above the particularities of local spirits, healers, and diseases, offering a larger cosmological framework that conceptually integrated the empire.

Nevertheless, as Cheng would find to his chagrin, if contagion was absent from ancient medical canons, it was not from more recent medical writings, specifically

those sections on avoiding Warmth which speak of people avoiding contagion (*ran* 染) from Warmth disorders. It is only that they do not make contact with the [epidemic's] deviant *qi*. Where they speak of the

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⁵⁶ *Yijing zhengben shu*, 5-6.

⁵⁷ *Yijing zhengben shu*, 1.

⁵⁸ For just a flavor of the text, section titles include “Number 3 Analysis of Cold Damage, Warmth-Factor Disorder, and Heat-Factor Disorder, Together with the Principles by which There is No Contagion,” “Number 4 Analysis of Affect and Injury by the Five Phases and Six *Qi*, Being Called Seasonal *Qi* and Further There being No Contagion,” “Number 5 Analysis of the Four Seasons’ Off-Kilter *Qi* being called Heaven-Implemented and not being Contagious,” “Number 13 Recording the Facts Concerning [Zhang] Zhongjing.” *Yijing zhengben shu*.

transmission of contagion (*zhuanxiang chuanran* 轉相傳染), they are entirely in error.⁵⁹

A survey of the medical literature confirms Cheng's observation that contagion appears in medical texts in association with Warmth disorders.

Why would Warmth represent such a radically different view of epidemics, an ontologically distinct disease to be avoided and one that spreads by contamination? How did Warmth become disconnected from climatic Warmth *Qi*?

Ontological Factors

From early times, the very language of epidemics (when not subsumed under seasonal disorders) contained associations with demonic agency. The *Shiming* (Explanation of Names, c. 200 AD) interpreted the etymology of the character for epidemic (*yi* 疫) as deriving from the character for soldiers (*yi* 役), "referring to there being demons spreading (*xing* 行) epidemics (*yi*).⁶⁰ Another term for epidemics was *li* 癘, often compounded with *yi* as in *yili* 疫癘 or *liyi* 癘疫. The graph written with a cliff radical 厲 instead of disease radical meant "violent," "fierce," or "harsh," and was used to identify "violent demons" (*ligui* 厲鬼) who spread epidemics in order to coerce the living into caring for them with sacrifices. They were often the ghosts of those who died in epidemics and they inflicted the same until they were appeased.⁶¹ Chao Yuanfang explicitly linked pestilence to such demons, writing, "In diseases that [strike] both adults and children at similar rates, if there is the *qi* of demonic violence (*guili* 鬼厲), it is accordingly called pestilential (*yili* 疫癘) disease."⁶²

A term commonly used since the Han to describe the spread of epidemics was "flowing and moving" (*liuxing* 流行). "Moving" or "spreading" (*xing*) often had an intransitive and neutral sense, but could also function transitively, as in the *Shiming* account of "epidemic" (*yi*), and was used specifically to refer to demons carrying out celestial mandates to spread epidemics.⁶³ The term appeared in discussions of "Seasonally Spread" (*shixing*) and "Heaven Spread" (*tianxing* 天行) disorders in a naturalistic,

⁵⁹ *Yijing zhengben shu*, 11-12.

⁶⁰ Lee (1993a), p. 419; Lin Fushih (1988), p. 116.

⁶¹ Katz (1995), p. 58. Katz translates *ligui* as "vengeful demons."

⁶² *Zhubing yuanhou lun*, 10.334.

⁶³ Lee (1993a), p. 421; Lee (1995), p. 374.

non-anthropomorphic sense.⁶⁴ In Daoist texts, though, Heaven Spread was the more common usage, and clearly referred to epidemics spread by demons carrying out a Heavenly mandate.⁶⁵ Despite its literate Daoist credentials, though, by the twelfth or thirteenth century the term “Heaven Spread” was also ascribed to shamans, as by Chen Fu (1076-after 1149) who complained about popular employment of shamans to pray in times of epidemics, “vulgarly called Heaven-Spread.”⁶⁶

Medical writings, as we have seen, attributed epidemics to external climatic *qi*, but they also ascribed them to ontologically distinct things that entered the body and caused disease. As in configurational accounts, the agents that caused disease were often described as “noxious” (*xie*), and both climatic noxious *qi* and noxious entities damaged the body by entering it, but when contagion was at issue, it was in an ontological framework of disease, not a functional one. In medical texts, where the ways in which demons act on the body were described, these tended to come in four major forms: 1) striking or attacking (*zhong* 中), as in Strikes by Malignant Agencies (*zhong* 中惡); 2) lodging or violation (*ke* 客), as in Lodging by Recalcitrant Agencies (*kewu* 客忤); 3) Infestation (*zhu* 注, 疰) by demons which could take form as worms and gnaw the viscera; and 4) encounters with demons in dreams, which happened when the Yang soul wandered,⁶⁷ including sexual relations with spirits that lead to the exhaustion of the *qi*.⁶⁸

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⁶⁴ The two terms are sometimes used interchangeably. Some versions of the *Xiaopin fang* give “Seasonally Spread,” others “Heaven Spread.” It gives a social explanation for differences in usage: “Cold Damage is the term of refined gentlemen; Heaven Spread and Warmth Epidemics are the way it is called in the fields and in homes. They do not speak of the differences and similarities in these disorders.” *Xiaopin fang xinji*, 60. Sun Simiao likewise alternates between the two in his quote of *Formulae with short articles* with regard to Cold Damage disorders. *Beiji qianjin yaofang*, 9. 171. The *Waitai miyao* version of this passage has “Heaven-Spread” in place of “Seasonally Spread.” See *Xiaopin fang xinji*, 60. Although the annotator Zhu Xinnian found “Seasonal” and not “Heaven” in *Beiji qianjin yaofang*, the Song-edition based text published by Renmin weisheng gives “Heaven-Spread” at a different point.

⁶⁵ See examples in Lee (1993a); Lee (1995). For examples in a Song miscellaneous jottings text, see *Yijianzhi*, vol. 1, 327-328; vol. 2, 660.

⁶⁶ See, for example, *Nongshu*, 2.5b. Also see translation and discussion below.

⁶⁷ See, for example, Dan Seishiki, and Imamura Yoshio (1980-1981), vol. 2, (*juan* 8), 124.

⁶⁸ For classic definitions and descriptions, see *Zhubing yuanhou lun*, *juan* 23-25. We find these types of demonic etiology in medical texts of the Song, and in medieval texts known to be extant in the Song. For some major Song accounts see, for example, *Taiping shenghui fang*, *juan* 31, 56; *Shengji zonglu*, *juan* 93, 100, 177; *Chen Wuze Sanyinfang*, *juan* 10.

Most prominent among ontological disease factors were demons, creatures in the “worm” (*chong* 蟲) category, and foul effluvia. Demons and ghosts (*gui* 鬼) could be inherently noxious and Yin, or only contingently so in relation to spirits and deities (*shen* 神) who were properly ritually situated and Yang. *Chong* was a category that could be used to refer to animals generally, but more commonly included arthropods, reptiles, amphibians, and mollusks.⁶⁹ As used in medical contexts, scholars often translate *chong* as “worms,” although depictions take on a wide range of forms, including worms, insects, mammals, anthropomorphs, and monstrous hybrids.⁷⁰ Foul effluvia could arise from the bodies of the sick, from corpses, from filth, from blocked waterways, or from certain landscapes. In contrast to cosmologically rationalized climatic or generic noxious *qi*, texts did not recommend responding to these dangerous things by harmonizing them, but by avoiding, expelling, or destroying them. For practical purposes, demons, worms, and effluvia were treated as things, noxious in and of themselves.

What were disease-causing demons? Like the correctness or noxiousness of *qi* in functional medicine, this could be contingent on circumstances. A dead person could be a spirit (*shen* 神) to their family and a ghost/demon (*gui* 鬼) to people outside the family. People who were not successfully installed on their ancestral shrines, for example who died violent deaths or away from home, could become dangerous “vengeful ghosts.” Behaving much like criminals in human society, such demonic former people could wreak havoc on human communities. As a means to neutralizing these destructive beings, especially when they could not be controlled by exorcism, they could also be transformed: enshrined, deified, and enlisted in the protection of their worshippers.⁷¹ Many demon-quelling deities began as demons before their own conversion.⁷² In many cases,

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⁶⁹ Harper (1998), p. 74; Fèvre (1993); Sterckx (2002), pp. 31, 90.

⁷⁰ Another translation is “vermin,” which traces to Latin *vermis* “worm,” like *chong* has a somewhat indefinite range of animal referents, and connotes creatures that are destructive, injurious, or loathsome. Maspero uses “vermin” to render the nine “common intestinal worms” (*jiuchong* 九蟲) and uses alternately “Worms” and “Corpses” for the internal demonic spirits that other scholars of Daoism usually translate as the “Three Corpse Worms” (*sanshi*, *sanshichong*, *sanchong* 三屍, 三屍蟲, 三蟲). See Maspero (1981), pp. 331-338.

⁷¹ Lin Fu-shih (1994), pp. 127-132.

⁷² This is the case, for example, for the plague-suppressing god Marshal Wen. See Katz (1995), pp. 77-116. Note the transformation of the year demons described by Bodde (1975), pp. 75-138.

then, the difference between baneful demon and benign spirit was a matter of ritually defined relationship.

Some demons operated as part of the Celestial order and administered epidemics as retribution for misdeeds which must be atoned. Medieval Daoist priests would respond by petitioning the appropriate celestial authorities for remission.⁷³ On the other hand, some demons did appear to be irremediably demonic, and required more violent approaches. Some of them were not former people and were depicted as bestial entities.⁷⁴ Restoring them to the side of order and human society was often a matter of subjugating them. Some categories of bestial demons, however, were so far beyond the possibility of social control that expelling and destroying were the only options.

While the spirit realm was ordinarily understood as lying outside normal human perception, the distinctions between material creatures and immaterial demons was not always clear. One characteristic of demonic or spiritual potency was the capacity for transforming, manifesting, or moving between realms.⁷⁵ Fox and raccoon spirits were known for their ability to transform between animal and human form. Some demons could also take form as worms,⁷⁶ or could be smelled and even seen as foul-smelling effluvia. Demons, worms, and stench populated not only the outer landscape, but the inner (bodily) landscape as well. To the danger of human hosts, they could communicate and move between the two.

The slippage among these categories of being, among demons, creatures, and airs, suggests how they might, theoretically, be reconciled with functional cosmologies.⁷⁷ In the practical exigencies of affliction, however, they were treated as inherently noxious and discrete entities. They were not patterns to be harmonized or regulated, or depleted functional systems or *qi* to be replenished. They were things to be avoided, guarded against, and expelled. They were also things that could be imagined as transmitting not only from place to person, but from person to person. (For a schematic

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⁷³ Katz (1995), pp. 56-58.

⁷⁴ See Lin Fu-shih (1994), pp. 137-141; Bodde (1975), pp. 75-138.

⁷⁵ Sterckx (2002), pp. 165 ff.

⁷⁶ Sterckx (2002), p. 176. Also see episode of demon "achieving form" as worm eating a woman's lungs in *Leizheng puji benshi fang*, 7.13b; also quoted in *Yishuo* 醫說, 4.4-5. Discussed in Hinrichs (2003), p. 178.

⁷⁷ Some have suggested that medical writers translated the demons of epidemics that attacked and invaded the body into noxious *qi* (*xieqi* 邪氣), stripping away demonic agency and reducing it to a functional aspect of *qi*. For example, see Sivin (1987), p. 102; Unschuld (1985), pp. 67-68.

depiction, see the appended chart, “Functional-Configurational vs. Ontological-Contaminationist Models.”)

Ontological-Contamination Models of Disease

While functional-configurational models did envision health-upsetting imbalances or noxious *qi* as propagating from one system to another within a body, this imagination did not extend to transmission between bodies. When diseases were contagious, they were envisioned and experienced not as functional irregularities in *qi* resonating between people, but as ontologically discrete entities—demons, worms, or effluvia—passing from body to body. In some cases, there was even a clear sense of the transmitted thing being quantifiable:⁷⁸ Infestation, produced by demons and demonic worms, was more virulent when it was received from a dead person than from a living person, because in the former case the demonic migration was more complete.⁷⁹ Noxious disease fumes passed among cattle until those fumes were “used up and after that it stops.”⁸⁰ Leprosy passed out of one person into another.⁸¹

Warmth

While Warmth appeared in functional-configurational frameworks as a feature of climate, some medical works also granted it demonic agency and the potential for contagion. As we saw above, Chao Yuanfang worked mainly in a functional-configurational tradition of understanding epidemics. Despite this, the very last item in his sections on Cold Damage, Seasonal *Qi*, and Warmth Disorders each concerns “making it not transmit to others” (*ling buxiang ranyi* 令不相染易).⁸² The inclusion of contagion suggests that Chao accepted that epidemics could in some cases be contagious, its marginality suggests that he saw it as the less important or even an embarrassment to his functional configurational accounts.

In the case of Cold Damage disorders, Chao included a section on contagion only to clarify that they were not contagious.

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⁷⁸ For more on these other contagious categories, see Hinrichs (2003), Chapter 6.

⁷⁹ *Wushang xuanyuan santian yutang dafa*, 23.6.

⁸⁰ *Nongshu*, 2.5b.

⁸¹ *Guixin zashi*, 81.

⁸² In each of these three sections, two or three items before this last is a discussion of transmission during sexual intercourse. *Zhubing yuanhou lun jiaozhu*, 8.275-276, 9.300, 10.332-333.

As for Cold Damage Disorders, it is only when people become ill from contacting the *qi* of Cold toxin that it will then not contaminate (*ranzhao* 染着) other people. If, because the seasons are inharmonious, with warmth and coolness losing their regularity, people are affected (*gan* 感) by perverse (*guaili* 乖戾) *qi* and become ill, this then will often contaminate others. Thus one should take medicine in advance and take measures to prevent it.⁸³

Cold Damage disorders were contracted when Cold occurred when it is supposed to, in winter, and were not contagious. It was when climatic *qi* was out of phase with the normative progression of the seasons, as was characteristic of Seasonally Spread or Seasonal *Qi* disorders, that contagion was possible. Even here, Chao did not describe the *qi* by which people were affected in these cases as irregular (*buzheng* 不正) or noxious (*xie* 邪), the more common antipodes to correct (*zheng* 正) *qi* in the language of functional medicine, but with the sharper qualifier “perverse” (*guaili* 乖戾).

If Cold Damage stood out for its non-contagion, Warmth stood out for its exceptional contagiousness—not when it appeared as a manifestation of dormant Cold Damage, its defining feature in Chao’s nosology, but when it emerged from the “perverse” (*guaili*) Seasonal *Qi* pattern of seasonal irregularity.

[As for Warmth Disorders], these are all due to disharmony in the seasons, and warmth and coolness losing their regularity. People are affected (*gan* 感) by perverse (*guaili*) *qi* and become ill. Then the disease *qi* transmits to and contaminates others (*zhuanxiang ranyi* 染易), culminating in the destruction of the family (*miemen* 滅門) and extending to outsiders. Thus one should take medicine in advance and take measures to prevent it.⁸⁴

Thus, while Chao pointedly refused to accommodate the idea of contagion in the case of Cold Damage, he seemed to feel compelled to make room for Warmth Disorder’s potential for contagion, but at the same time preserving some distinction between configurational and contamination modalities by producing an alternate etiological explanation.

In a clearer gesture toward ontological-contamination frameworks, by making “destruction of the family line” (*miemen*) one of the characteristics

⁸³ *Zhubing yuanhou lun jiaozhu*, 8.277. The latter part of this account is quoted verbatim as applying to Seasonal *Qi*, at the end of that section. *Zhubing yuanhou lun jiaozhu*, 9.302.

⁸⁴ *Zhubing yuanhou lun jiaozhu*, 10.333-334.

of Warmth contagion, Chao hinted at a link with demonic-contagious Infestation disorders of which it was a primary feature.⁸⁵ Ge Hong 葛洪 (281-341), who distinguished Cold Damage and Seasonally Spread diseases in a way similar to Chao, made the connection explicit.

Cold Damage, Seasonally Spread, and Warmth Epidemics (*wenyi*) are three names for one type [of disorder]. Fundamentally, they are [only] slightly different. Those cases in which there is injury by Cold in the winter months, sometimes spreading rapidly and acting strongly; breaking out in sweat and getting Wind-Cold; and breaking out [in illness] when summer comes—these are called Cold Damage. Those cases in which in the winter months it is not very cold, and there is a lot of Warmth *qi* to the extent that the four winds make people's bones and joints become slack and get ill; and when spring comes it breaks out—these are called Seasonally Spread. In those cases in which during the year there is pestilential (*li*) *qi* that combines with demon-toxin and Infestation—these are called Warmth diseases. If it is any of these, on examination the symptoms [of different patients] resemble each other. In the refined speech of the eminent and powerful, they are sweepingly called Cold Damage. It is the popular custom to call them Seasonally Spread. The exorcistic talismans of Daoist techniques speak of the Five Warmth-[Demons].⁸⁶

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⁸⁵ The term “destruction of the family line” (*miemen*) derived from a category of legal punishment (criminal responsibility in some cases extended to relatives). The punishment was adapted in Daoist juridical frameworks, and was sometimes envisioned as being carried out by demons. On the Qin-Han legal principle of destruction of the lineage on which *miemen* is thought to have been based, see Lewis (1990), pp. 91-94. On the extension of punishment to the family in sepulchral complaints in early medieval Daoism, see Strickmann, pp. 10-23; Bokenkamp, pp. 56-58, 111-118, 130-138; Katz (2009), pp. 34-35.

For more on the etiology and contagion of Infestation disorders, see Hinrichs (2003), Chapter 6; Hinrichs (forthcoming), Chapter 6.

⁸⁶ Epidemic demons and Warmth demons tend to come in fives. See Lee (1993a), p. 422. This passage appears in *Ge Hong zhouhou beiji fang*, 2.45-46. Part of this passage also appears in quotations from the *Xiaopin fang*, which scholars have dated more broadly to the two Jin and Northern and Southern Dynasties (265-588), to the Western Jin (265-316), and to latter half of the fifth century. See *Xiaopin fang xinji*, 1, 60. Ge Hong's *Zhouhou beiji fang* as it has come down to us includes passages that

Like Chao Yuanfang, then, Ge Hong placed Cold Damage and Seasonally Spread disorders in a functional-configurational framework. While Chao hints at a link with demonic Infestation through the language “destruction of family,” Ge made this link explicit. Finally, Ge went further than this. He reported that these terms, which might be distinguished technically, were used generically by different social groups for epidemics, in which “on examination the symptoms [of different patients] resemble each other.”⁸⁷ Warmth as used in Daoist exorcistic talismans is not Warmth *Qi* or a manifestation of Cold *Qi* injury, but ontologically noxious, pestilential (*li*), demonic, and infestatious. This is born out in Daoist texts, where we find the epidemic-spreading “Five Warmth Demons.”⁸⁸

Where medical texts treat Warmth as demonic and ontological rather than as a variety of Seasonal *Qi*, they continue to show evidence of derivation from Daoist traditions. Chao Yuanfang, who had taken such care to place Warmth in a functional framework, when admitting its potential for contagion, linked it to demonic epidemics. He followed his section on Warmth with one on “Pestilence” (*yili*), in which he distinguished the various seasonal disorders that were often epidemic among the people from pestilential diseases caused by demons. Here he quoted a nurturing life (*yangsheng* 養生) text’s method for extending years that will allow one to “avoid noxious demons,” “avoid and eliminate the masses of noxious [agents] and the hundred demons,” make it so that the “hundred noxious [agents] dare not invade you, and you can thereby go into the midst of a Warmth Epidemic” —presumably without catching it.⁸⁹

Chao Yuanfang seems to have taken a commonly recognized type of epidemic, generally understood to be caused by demons, and partially fitted it into a functional-configurational framework. He did not entirely omit, though, traces of Daoist and demonic understandings, producing discrepancies with the switch from Cold Damage to Seasonal *Qi* etiology, the introduction of language usually associated with Infestation, and the link between Warmth Epidemics and demonic pestilence. Chao’s work was a starting point for many later authors’ definitions of disease, and they did

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were originally annotations by Tao Hongjing (456-536). Which belong to Ge Hong’s original text and which were added by Tao Hongjing is often no longer clear.

⁸⁷ A similar social distinction is also reported by *Xiaopin fang*, some versions of which give “Seasonally Spread,” others “Heaven Spread:” “Cold Damage is the term of refined gentlemen; Heavenly Spread and Warmth Epidemics are the way it is called in the fields and in homes. They do not speak of the differences and similarities in these disorders.” *Xiaopin fang xinji*, 60. This was already in footnote 65.

⁸⁸ Lee (1993a), pp. 426-427; Lee (1995), pp. 381-382.

⁸⁹ *Zhubing yuanhou lun* 10.334-335.

follow him in subsuming Warmth disorders under the etiological pattern of Cold Damage, in treating Warmth disorders as contagious, and in retaining some reference to demonic contagion.

Despite minor inconsistencies, we find a strong authorial voice and overall theoretical consistency in Chao's *Zhubing yuanhou lun*. Sun Simiao on the other hand seems to have been more interested in including multiple perspectives and approaches to treatment. He quoted widely from other sources, and did not bother to reconcile theoretical differences, which were particularly marked in the completely different styles of medicine he brought to bear in therapies for Cold Damage and Warmth disorders.

Sun followed his general functional-configurational theoretical introduction to Cold Damage disorders with a subsection devoted to formulae for "Avoiding Warmth." In the introduction, he quoted *Xiaopin fang*, which attributed Warmth Disorders to injury by Cold in winter. While from this we might anticipate that "avoiding Warmth" would entail "keeping oneself firmly closed in" in the winter,⁹⁰ the Avoiding Warmth section consisted predominantly of methods for "avoiding epidemic *qi*," "avoiding Warmth Diseases," killing demons, and breaking the line of transmission and contamination of Warmth Epidemics, which otherwise then "culminate in the destruction of the family line (*miemen*) and extend to outsiders." The term "avoid" (*bi* 辟, 避) itself was traditionally used to refer to methods for warding off demons.⁹¹ Accordingly, the formulae in this section were concerned with avoiding Warmth, Epidemic *Qi*, and demons.⁹²

Besides the descriptive language of "avoiding" and "demons," many of the formulas themselves were clearly apotropaic. There were several cases of protection against or expulsion of noxious entities or *qi* from bodies, homes, and wells. Bags of medicines were hung in or on doorways, windows, walls, or bodies or were dropped into wells; medicines were used to fumigate homes and courtyards as well as ingested; and noses and ears were smeared with medicines. The formulas contained numerous ritual or magical elements, such as facing east at dawn and reciting incantations, and measuring the circumference of the house with a rope and then cutting it. Some specified performance on New Year's morning, a significant time in the ritual calendar for cleansing away and exorcising the previous year's demons.⁹³ The medicine itself was sometimes described as

⁹⁰ *Xiaopin fang xinji*, 60; *Beiji qianjin yaofang*, 9.173.

⁹¹ Lin Fu-shih (1988), pp. 131-132.

⁹² *Beiji qianjin yaofang*, juan 9-10, *passim*.

⁹³ See translation in Appendix 5, "Prescriptions for Avoiding Warmth and Contagion From Sun Simiao's *Beiji qianjin yaofang* and Pang Anshi's *Shanghan zongbing lun*," in Hinrichs (2003), pp. 283-301.

possessing a type of anti-demonic power, as in Sun's introduction to "Formula for Realgar Pills:"

In the 2nd Year of the Jianning period in the Han (169 AD), Jupiter was in the *you* 酉 position. Epidemic *qi* spread, and multitudes of people died. There was a young adult student, Li Hui 李迴, who was coming from Qingcheng Mountain in Shu (Sichuan). To the east he passed through Nanyang [in Henan], entering from the West Market Gate. He saw that there were rather many people suffering from pestilence (*yili*), and thereupon took some medicine from out of his bag. He bestowed on each one pill. When its efficacious numinosity (*ling* 靈) wet their lips, there was no illness that was not cured.

When the epidemic demons (*yigui*) in the marketplace, numbering in the hundreds and thousands, saw the student distributing medicines, they all became frightened and ran away. There was a Demon King who saw the student, and said that he must have the Law (or Rites) of the Dao (*daofa* 道法)⁹⁴ [since] when he distributed the medicine it both affected (*gan*) the populace and the demons fled the way they did. Thereupon he made a visit to the student seeking to receive his Law of the Dao. The student said, "I have no Law of the Dao, but only the medicine in my bag." He presented this to the Demon King, but when the Demon King looked at the medicine he kowtowed in alarm, begged for his life, and ran away.

Wear this medicine, and when you go into the mountains, you will be able to avoid tigers, wolves, insects, and snakes. When you go into the water you will be able to repel water monsters, *jiao*-dragons (蛟), and *shen* sea creatures (蜃).⁹⁵

The medicines prescribed also featured drugs regularly used against demons and worms but not Cold Damage disorders. Realgar (*xionghuang* 雄黃), featured in the formula above, appeared in seven of Sun's Avoiding Warmth formulas.⁹⁶ At least as early as the first century it had been

⁹⁴ Also referring to Daoist ritual.

⁹⁵ *Beiji qianjin yaofang*, 9.176.

⁹⁶ See Appendix 5: "Prescription for Grand Unity Molten Metal Powder," "Prescription for Realgar Powder," "Prescription for Roasted Medicines" "Prescription for Tiger's Head Demon-Killing Pills," "Avoiding Warmth and Killing Demon

recommended for killing sprites (*jingwu* 精物), malevolent demons (*egui* 惡鬼), and noxious *qi*. In the fifth century it appeared in a text for Demonic Infestation (*guizhu* 鬼注). It was also recommended for use in amulets to “put dangerous animals to flight and to destroy the venom of poisonous snakes.”⁹⁷ In his *Qianjin yifang* 千金翼方, where he lists drugs and their properties, Sun Simiao wrote that realgar “resolved ... Strikes by Malignant Agencies (*zhongge*), ... and demonic possession; and killing spirits, malevolent demons, noxious *qi*, and the toxins of the hundred *gu* (*baigudu* 百蠱毒).”⁹⁸ During the Dragon Boat Festival in modern Taiwan, realgar liquor has been both sprinkled around the outside of homes and ingested to ward off noxious creatures.⁹⁹

One of the first major Song treatises on Cold Damage Disorders, Pang Anshi’s 龐安時 *Shanghan zongbing lun* 傷寒總病論 (Comprehensive Treatise on Cold Damage Disorders, before 1100), while elaborating functional-configurational frameworks, followed Sun’s lead by inserting a subsection of remedies for “Avoiding Warmth,” much of it copied from Sun’s *Qianjin fang*, and like Sun without any attempt to reconcile it theoretically with the climatic explanations that preceded it.¹⁰⁰ Pang also employed realgar as an apotropaic, and showed evidence of links to Daoist traditions, as in the following remedy:

Grind high quality realgar (*xionghuang* 雄黃) with water. Use a writing brush to dip up a thick dollop [of realgar] and smear it inside the nostrils. Then epidemic *qi* will be unable to enter, and [even if] you share a bed with a sick person it will still not transmit (*xiangran* 相染). At the

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Pills,” “Prescription for Realgar Pills,” “Prescription for breaking off transmission and contamination by Warmth Epidemics.” These also appear in *Taiping shenghui fang*, *Shanghan zongbing lun*, and *Shengji zonglu*.

⁹⁷ Obringer (2001), pp. 194-195, 202-203; Obringer (1997), pp. 77-80.

⁹⁸ *Qianjin yifang*, 3.16. To take just one other example, Cinnabar also appears frequently. Among its applications, Sun lists “killing sprites (*jingmei* 精魅) and noxious and malignant demons (*xiegui* 邪惡鬼), and expelling (*chu* 除) stomach aches from strikes by malignant agencies.” As we expect given its association with cultivating vitality and transcendence, Sun lists constructive uses as well, such as cultivating the seminal essence and spirit (*jingshen* 精神), calming the Yang and Yin souls, and increasing the *qi*. *Qianjin yifang*, 2.14.

Gu-poison was a type of witchcraft-inflicted infestations disease whose production involved the cultivation of demonic snake-, toad-, worm-, or insect-like “worms” (*chong*).

⁹⁹ Davis (1992), pp. 405-406.

¹⁰⁰ *Shanghan zongbing lun*, 122-126.

beginning of the fifth watch¹⁰¹ after you wash your face and as contingencies arise, daub it on. In general, the homes of those stricken with Warmth Epidemics of themselves generate noisome and foul (*chouhui* 臭穢) *qi*. When people smell this *qi* [they should] immediately use a strip of paper to probe the inside of their nose. If they sneeze it [out] it is good. Otherwise the noxious *qi* will enter the “Higher Origin Palace” (*shangyuan Gong* 上元宮) and form this disease. If you use realgar to daub it, then because you do not smell this *qi*, you will additionally avoid the various malignant agencies and monstrous dreams [i.e., demons].¹⁰²

The “Higher Origin Palace” corresponds to the brain and upper Cinnabar Field, which have a central role in Daoist physiology and self-cultivation but none (ordinarily) in functional medicine.¹⁰³

Besides continuing to appear in “Avoiding Warmth” sections of medical works, in the Song the ideograph for Warmth, *wen* 溫, came to appear more often with its water radical swapped for a disease radical 瘟, referring more generally to virulent epidemics, or plagues.¹⁰⁴ The “Plague Gods” that

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¹⁰¹ Around 4 a.m.

¹⁰² *Shanghan zongbing lun*, 5.123-124. This passage came under particular criticism from Cheng Jiong in his arguments against contagion. Ironically, Chen Yan, who also quoted this remedy (*Sanyin fang*, 6.6b), provided a postface to Cheng Jiong’s *Yijing zhengben shu*.

¹⁰³ Liu Wenshu, famous for his successful promotion of Five Phases and Six *Qi* theory to the court in 1099, described a similar mechanism for contagion, toxic *qi* entering through the nose into the brain. Although he did not identify this specifically with Warmth or with demons, he did give instructions such as the following: [Quoting from a “lost chapter” of the *Suwen*, considered apocryphal]: “If you want to enter the chamber [of someone sick with] an epidemic, beforehand imagine green *qi* coming out of the Liver and moving leftwards to the East and transforming (*hua*) and making (*zuo*) trees.” “Lost Tract,” *Suwen rushi yunqi lun’ao*, 29-31. The text continues with instructions for subsequently imagining the other Phase-associated colors issuing from the Phase-correlated Viscera, moving in the Phase-matched directions and transforming into Phase-fitting things. Catherine Despeux argues that Five Phases Six *Qi* theory was developed in a Daoist milieu, and such visualization techniques and an emphasis on the role of the Brain do suggest such a connection.

¹⁰⁴ Lee (1993a), pp. 423-425. Current recensions of Ge Hong’s work also distinguish the graphs in this way.

Plague here is to be taken in the sense of a general, pestilential affliction, often implying something infectious. It is not to imply any association with the specific disease of bubonic plague, often referred to as The Plague.

began to spread in the Song period were written with the latter graph.¹⁰⁵ The two usages appeared in conjunction, making clear their references to different understandings of etiology, in the Southern Song physician Chen Yan's "Brief overview of the various epidemics and their patterns and treatments." Here, Warmth 溫 was one epidemic configuration:

In general, before the vernal equinox and after the autumnal equinox, the *qi* of Heaven accords with Clear and Cool [weather]. If suddenly you have Warmth *qi* breaking in, then the people will be ill with Warmth Epidemics (*wenyi* 溫疫). After the vernal equinox and before the autumnal equinox, the *qi* of heaven accords with Heat. If suddenly you have Clear and Cool *qi* breaking in, then the people will be ill with Cold Epidemics. ...

Following this, Chen detailed a rich variety of plague 瘟 types which he associated with specific places, fitting a demonic and more generally ontological view of etiology:

That which establishes an epidemic (*yi*), might be ditches not flowing, accumulating their filth, and this fuming up and forming [epidemic *qi*]. It might be that the land has a lot of death-*qi*, which is blocked and then erupts and forms [epidemic *qi*]. It might be that the officials and clerks are corrupt and oppressive, making grievances and slander which forms [epidemic *qi*]. Today these are called Prison Plague (*yuwen* 獄瘟), Injury Plague (*shangwen* 傷瘟), Grave Plague (*muwen* 墓瘟), Temple Plague (*miaowen* 廟瘟), Shrine Plague (*shewen* 社瘟), Mountain Plague (*shanwen* 山瘟), Sea Plague (*haiwen* 海瘟), Home Plague (*jiawen* 家瘟), Stove Plague (*zaowen* 竈瘟), Harvest Plague (*suiwen* 歲瘟), Heaven Plague (*tianwen* 天瘟), Earth Plague (*diwen* 地瘟), and so forth. You must not fail to investigate [their origins].¹⁰⁶

These varieties were associated with places prone to the particular dangers of blockage or demonic attack: sacred precincts; remote areas; domestic

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For more on various plague god cults and their spread in southern China from at least the Song period, see Katz (1995).

¹⁰⁵ On the spread of cults to the Five Plague Gods, see Lee (1995), pp. 391 ff; Katz (1995).

¹⁰⁶ (Chen Wuze) *Sanyinfang*, 6.4b-5a.

spaces; stagnating filth producing noxious fumes; and the moral obstruction of governmental injustice accumulating airs of grievance around prisons.¹⁰⁷

Theoretical Rigor and its Limits

As the naturalistic Yin-Yang and Five Phase cosmologies that underlay and powerfully integrated imperial ideology, medical theory, and religious practice gradually spread from the Han period on, the contradictions between functional-configurational and ontological-contaminationist frameworks became evident but were often ignored. Sometimes, as in the case of Ge Hong and Chen Fu, the different frameworks were tied to social class. Cao Zhi 曹植 (192-232)¹⁰⁸ attributed demonic views of epidemics in general to the benighted poor.

In 217 pestilential *qi* was spreading, and every family suffered [the proliferation of their relatives'] stiff corpses. In every room there was the sorrow of wailing tears. Some closed their doors and died. Some clans were mourned for their annihilation. Some [people] took it to be epidemics carried out by demons and spirits.

Now, of those so stricken, all are sons who dress coarsely and eat rough food, people who live in thorn huts and mugwort-woven shacks. It is rare among those families who live in palaces and eat from *ding*-vessels, and households with piles of sable and layers of bed-mats. When Yin and Yang losing their positions, when Cold and Summer-Heat cross the seasons—it is for this reason that epidemics arise. But the deluded people hang talismans and perform exorcisms. It is ridiculous.¹⁰⁹

The class distinction is born out in the decline between the Han and the Song of customs such as the exorcistic *nuo* 傩 festival and the employment of shamans for healing at court and among elites.¹¹⁰

Despite occasional derision and the posing of functional-configurational models as alternatives, though, disease-spreading demons remained prominent objects of fear across the social spectrum. From early times we find

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¹⁰⁷ For analyses of demonic dangers associated with particular places, see Liao Hsien-huei (2007); Li Jianmin (1994).

¹⁰⁸ Famous poet and younger brother of Cao Pei, Cao Cao's successor and founder of the Wei Dynasty.

¹⁰⁹ *Caoji quanping* 曹集詮評, 9.66-67.

¹¹⁰ Bodde (1975), pp. 75-138; Nakamura (1992), p. 85.

records, not only at the popular level but in elite society, of epidemics treated and prevented by wearing or imbibing protective talismans or demon-expelling medicines, exorcisms and exorcistic festivals, and the shunning of people or areas stricken with epidemics. Shamans and plague god festivals remained vital and prevalent at the local level through the rest of the imperial period and even today.¹¹¹

During the Song period, when officials were deploying Cold Damage texts to combat shamanic healing, Daoist exorcists were also popular among elites, talismanic treatments retained a department in the imperial medical curriculum, and prominent medical writers and government bureaus included treatments for demonic ailments in their formularies.¹¹² The imperially compiled *Comprehensive record of Sagely beneficence* (1118) advised:

For methods of treatment [of Demonic Intermittent Fevers (*guiniū* 鬼瘧)] it is appropriate to perform exorcistic sacrifices to expel [the demonic noxious agents (*guixie* 鬼邪)], and together with that take decoctions for

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¹¹¹ In a very few records, we find policies or policy proposals that reflect a recognition of contagion as a real danger, and quarantine as a judicious response. State-run hospitals were, in at least one policy document, ordered to set aside quarantine wards specifically to prevent contagion. During epidemics in 1181 and in 1187 official travel bans were ordered for the Southern Song capital of Lin'an (modern Hangzhou), presumably in this case to keep the disease from spreading through interpersonal transmission. On quarantine wards, see *Song huiyao jigao* 宋會要輯稿, discussed in Goldschmidt (2009), p. 64. For records of the two travel bans, which were gleaned from local gazetteers, see Imura Kōzen (1936), p. 271.

Contagion among cattle may have provoked less controversy. Although "filial" behavior among cows was used in the Song as evidence that Filial Devotion was a universal Coherent Principle (*li* 理), for literati cattle quarantine does not seem to have triggered the intense moral reaction that it did among humans. On contagion among cattle, see *Nongshu*. On bans on cattle trading during disease outbreaks, see Shiba Yoshinobu (1970), p. 98.

On apotropaic and exorcistic treatments and festivals, see, for example, Harper (1998); Bodde (1975), pp. 302-316, 387-395; Lin (1988), pp. 115-118; Lee (1993a), pp. 420-421; Katz (1995); Benedict (1996), pp. 100-130; Szonyi (1997); Johnson (1989). While some of these works mention the continuation of these practices in the twentieth century, the following focus on it: Lin Fu-shih (1995b); Guo Jing 郭淨 (1993); Lee (1993b); Gould-Martin (1975).

¹¹² See, for example, Davis (2001), p. 17; the talismans in *Shengji zonglu* (1118), *juan* 195-197. On the inclusion of talisman and incantation techniques in the Song curriculum, see Miyashita Saburō (1967), p. 140.

expelling (*qu* 祛) noxious [agents] and calming the spirit.¹¹³

The medical official Chen Yan 陳言 (fl. 1161-1176) similarly wrote:

When the sick have chills and fever every day, their dreams are inauspicious, and they often become afraid, this is called Demonic Intermittent Fever. It is appropriate to use apotropaic and exorcistic methods (*jinbi yanrang zhi fa* 禁避厭禳之法).¹¹⁴

We are not looking, then, at official or elite consensus.

The impression that medical works sometimes appeared to uphold Cheng Jiong's ideals and advocate a rigorous functional-configurational approach, may have been an artifact of context. The Song did see an outpouring of treatises on Cold Damage that eschewed mention of contagion and "Avoiding Warmth" – books that took Zhang Zhongjing's contagion-free *Shanghan lun* and Five Phases and Six *Qi* theory – not Chao Yuanfang's comprehensive nosology, not Sun Simiao's eclectic therapies, and not state pharmacopeias' encyclopedic ambitions, as their starting points. If contagion and Warmth did not fit the narrower theoretical enterprise, this does not mean that they were neglected medically even by the same authors. We have already discussed the appearance of Avoiding Warmth in the theoretical works of Pang Anshi and Chen Yan. Liu Wenshu, famous for successfully promoting Five Phases and Six *Qi* at court, did not discuss contagion in his theoretical writings, but did in his comments to an appended apocryphal "lost tract" from the *Suwen*.¹¹⁵ The literatus medical writer Xu Shuwei 許叔微 (1080-1160)¹¹⁶ developed functional-configurational theories in his works on Cold Damage, where he did not mention contagion, but gave accounts of and treatments for "Various Worm, Flying Corpse, and Demonic Infestation" diseases and demonic or ghostly visitations in his formulary, *Puji benshi fang* 普濟本事方

¹¹³ *Shengji zonglu*, vol. I, 35.718.

¹¹⁴ Under "Symptoms and Treatments for Intermittent Febrile Disorders (*nüebing*) with Neither Inner Nor Outer Causes," *Sanyinfang*, 6.12b.

¹¹⁵ "Lost Tract," *Suwen rushi yunqi lunao*, 29-31. See translation and discussion in Hinrichs (2003), pp. 194-197.

¹¹⁶ Person of Zhen Prefecture, Huainan East Circuit; in modern Jiangsu. *Jinshi* 1132. He served as an Educational Official in Huizhou and Hangzhou, and as Grand Academician at the Academy of Scholarly Worthies. *Songren zhuanji* 3.2177; postface to *Xu Shuwei Shanghan lun zhu sanzong* by Chen Zhiheng et al., 215.

(Formulae for the Fundamental Matter Universal Relief).¹¹⁷ One type of work aimed at the development of functional-configurational frameworks, in which contagion did not fit; others included more diverse phenomena. Medicine is, after all, a practical discipline, and does not lend itself to theoretical reductionism.

That said, medical writers and Song officials, if they did not go so far as Cheng Jiong in calling for rigorous confinement to canon-based Cold Damage models, did give that approach to medicine priority and prominence over demonic Warmth and contagion. Luo Shi and Liu Yi did pit “Cold Damage” against shamanic healing. What provoked the growing antagonism between functional-configurational and ontological-contaminationist medicine? What made their polarity more obvious, and commitments to the former stronger?

The eleventh century saw the conjunction of the new availability of the hitherto obscure *Shanghan lun* of Zhang Zhongjing, the appearance of a new system for calculating and predicting the climatic configurations that engendered epidemics and guided their treatment, and the coincidence of the dominance of the Three Yin and Three Yang modalities in both the classical text and the new cosmology. The Song’s expansions of its bureaucracies for editing and publishing medical texts, as well as for medical education and medical relief, provided venues for the circulation of these texts and thereby opportunities for building on them in theory and in practice.¹¹⁸ Campaigns against southern shamans and quarantine, begun as early as the 960s, clearly brought attention to the contradictions between functional-configurational and ontological-contaminationist medicine, and motivated officials and literati to promote the former against the latter. Put another way, functional-configurational approaches provided a resource for those who would reform southern customs, or would dispute contagion, or would seek non-apatropaic non-exorcistic non-sick-avoiding means for treating epidemics.

Functional-configurational medicine also spoke to a view of the cosmos, of the person, and of disease that would have been congenial to officials and to elites with predilections for a holistic organic universe, and for minimizing the heterogeneity of the empire. Configurational theories reduced diverse disease manifestations to factors of climatic variation in temperature and dampness, to a numerical cosmology; ontological factors such as Warmth and Plague demons came in a profusion of local peculiarities and individual personalities. Five Phases and Six *Qi* theory also

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¹¹⁷ Puji *benshi fang*, 6.89, 7.94-103, 8.112-113; Xu Shuwei *Shanghan lun zhu sanzong*, *passim*.

¹¹⁸ See Hinrichs (2011), pp. 217-238.

appealed to literati and officials who were interested in cosmology, something Cheng Jiong evinced in his work on the *Yijing* (Classic of Change), and surely contributed to making contagion, which does not fit well in cosmological systems, anathema.

Implications

The theoretical potential of demons, worms, and effluvia to be treated in functional, processual, or relational terms was never fully translated into practice. Daoist talismans did not attempt to convert demons; they exorcised them. Medical therapies did not prescribe means of harmonizing with demons and worms; they avoided and expelled them. Foul *qi* was not measured on axes of temperature and moisture; it stank. The compelling cosmology that provided the basis for functional medicine, while influential, sometimes overlay and more often coexisted, competed, or alternated with other ways of looking at the world, experiencing the body, and healing. These frameworks not only offered different ways of looking at the world, they authorized different action in it. They were strategic resources.

It is not inconsequential that functional-configurational medicine offered an elegant cosmology of disease and epidemics that shared a common idiom with dominant models of imperial-bureaucratic power. This medical modality's diagnostic and therapeutic approaches demanded subtle artistry and erudite sensitivity, not unlike that of the ideal ruler or official. It identified not enemies to be attacked or defended against, but irregularities to be regulated, imbalances to be balanced, insufficiencies to be replenished, excesses to be curbed, contrary flows to be re-channeled. It eschewed martial approaches for civil ones congenial to cultured literati, gentry, and the growing number of physicians who aspired to elite distinction.¹¹⁹ It reduced the human, environmental, climatic, and epidemiological ecologies of far-flung Lingnan, Sichuan, Jiangnan, and the northern "central" plains to fractal variants of common principles, or even Coherent Principle (*li* 理), thus producing an ideologically resonant formulation that integrated the diverse peoples and lands of the empire.

Ontological-contaminationist medicine did not. Instead it offered a vibrantly diverse and capricious world of violent bestial demons, gnawing verminous creatures, and vile fetid vapors. It located these in the rooms and effects of the sick and the dead and in exotic, frightening lands. These were not patterns to be harmonized, but things to be fled, warded off,

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¹¹⁹ On the growing number of Song physicians who were seeking and achieving something closer to literati status, see Hymes (1987); Chen (1997); Chu (2006).

cleansed, and destroyed. Ontological modalities were not alien to elite culture and ruling practice, but neither did they suit civil-bureaucratic and Confucian ideals—ideals grounded in oppositions between governance through transformative instruction of commoners and barbarians on the one side, and punishment and military conquest on the other. In the Song, officials and literati exhibited totalizing preoccupations, campaigning aggressively to integrate elite-commoner and center-periphery customs and mores.¹²⁰ As we have seen, this ethos permeated far beyond policy and philosophy, contributing to the rationalization of theories of epidemics, and to the marginalization of contagious Warmth diseases and the divisive world views and behaviors they supported.

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¹²⁰ This ethos tended to be acted on more through central state policy in the Northern Song, and more through local activism and self-cultivation in the Southern Song. For an overview of these orientations, see Hymes and Shirokauer (1993).

Functional-Configurational vs.
Ontological-Contaminationist Models

Etiologies	<u>Functional</u> • Noxious Qi 邪氣 • Wind 風 • Cold 寒 • Warmth 溫 • Summer-Heat 暑	<u>Ontological</u> • various demonic entities: 惡鬼, 精魅, 邪, 蠱, 精物、忤, 屍, 祟 • various chong 蟲, 蠱, 蠹, 蠹, 蟻 • various perverse, steaming, stinking, or fermenting [effluvia] 乖戾, 熏, 蒸, 鬱, 臭穢, 惡, 醅汗 (氣)
Categories of Epidemic or Contagious Disorders	<u>Configurational</u> • Cold Damage 傷寒 • Seasonal Qi 時氣 • Five Circulatory Phases and Six Climatic Qi 五運六氣	<u>Contaminationist</u> • Pestilence 癘 • Warmth, Heaven-Spread 瘟, 天行 • Infestation 注／疰, 傳屍癘瘵 • Miasma 瘴, 霧 • Grand Wind, lai 大風, 癩
Dominant Responses to Disorder	• Harmonize 調, 和	• Avoid, Ward Off 辟／避, 禁, 防 • Expel, Evacuate, Exorcise 除, 下, 祛, 厭, 禳 • Kill, Destroy 殺, 滅

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