
Habituating Individuality: The Framing of Tuberculosis and Its Material Solutions in Republican China

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SUMMARY: In their endeavor to solve China's tuberculosis crisis, public health advocates in the 1930s framed tuberculosis as a disease of the Chinese family. Instead of being considered as a social disease, tuberculosis drew people's attention to the graphic details of personal health habits and the allegedly pathogenic structure of the Chinese family. Focusing on so-called unhygienic habits and on the selective acceptance, abandonment, or innovation of household utensils (such as the traditional sleeping platform, the individual cup, and the hygienic table), the author traces the process by which tuberculosis contributed to the making of the modern Chinese body by way of habituating individuality.

KEYWORDS: tuberculosis, hygiene, twentieth-century China, health habits, modernity, individualism

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The Chinese Hygienic Table

Few people have heard of the Chinese hygienic table,¹ although you may have used one just last night without thinking anything of it. It is the circular, rotating tray set found on dining tables in Chinese restaurants all over the world, better known in English as a “lazy Susan.” So familiar is this device that it may be surprising to learn that this standard feature of modern-day Chinese restaurants is a fairly recent invention of the early twentieth century. Even more surprising is the fact that the self-proclaimed inventor of this device was not a designer of household items but Wu Liande (Wu Lien-teh, 1879–1960), the Cambridge-trained doctor who helped control the Manchurian plague of 1911, thereby introducing modern public health practices to China. Wu had no interest in convenience or fine dining; he invented the hygienic table to protect the Chinese people from their number one cause of death: tuberculosis.

How did the control of tuberculosis (TB) come to be so closely connected with the design of a domestic item in China in the early twentieth century? To answer this question, one must appreciate how tuberculosis in 1930s China became framed as a disease of the Chinese family. Instead of being considered a social disease, tuberculosis drew attention to the graphic details of personal health habits and the allegedly pathogenic structure of the Chinese family. This paper attempts to explain how this framing took shape; why it assumed its particular format; and how tuberculosis, once framed as a family disease, in turn was used as a framework from which to discuss larger issues of individualism, family reform, and modernity.

This paper proceeds in six parts. Following the introduction, section 2 argues that medical leaders and state officials during the Republican period deliberately formulated the practical strategy of deprioritizing the objective of controlling tuberculosis in the construction of public health in China because they saw tuberculosis as a social disease that was closely related to socioeconomic conditions and therefore not easily controllable by means of public health measures. Against this health policy, however, an antituberculosis movement arose that helped popularize the idea that China was suffering a tuberculosis crisis. With very limited and problematic statistical data, these health advocates popularized not only the seriousness of this health crisis but also the idea that China’s tuberculosis problem was very different in nature from that of the Western countries.

Section 3 details the rise of a perceived tuberculosis in China. Section 4, titled “Unhygienic Habits and the Intimate Family,” documents how health advocates developed the theory that rather than being a social

1. “Hygienic table” was the English term used by its inventor, Wu Liande.

evil caused by modernization, urbanization, and poverty, tuberculosis in China was caused by the individual's unhygienic habits that were cultivated within the traditional Chinese family. By way of tracing the changing meanings of tuberculosis as a family disease in premodern and Republican China, section 5 analyzes the process that refashioned tuberculosis into a disease of the Chinese family. Given the fact that this local etiology helped create a novel fear of intimate contact between family members, section six argues that there was a salient parallel between the advocacy of personal hygiene as the key to tuberculosis prevention and the family reform movement: Both groups viewed the traditional Chinese family as the source of various kinds of threats, whether health related or moral, against which the individual had to vigorously protect him- or herself. In very different ways, both of these two movements participated in transforming the Chinese people into modern "individuals," autonomous and liberated from the confinement of the traditional patriarchal family.

Focusing on the selective acceptance, abandonment, and innovation of specific household utensils, section 6 traces the process by which tuberculosis contributed to the making of the modern Chinese body by way of habituating individuality. Finally, this article emphasizes that this habituation of the individual was far from an exact replica of the modern West. By preserving the social relationships fostered by communal eating, for example, the local invention of the hygienic table allowed the Chinese to practice tuberculosis prevention while also becoming a somewhat different kind of "individual."

Deprioritizing Tuberculosis in the Construction of Public Health

From the mid-nineteenth century to the 1930s, estimates of the prevalence of tuberculosis in China rose steadily. Writing in the 1840s, Benjamin Hobson (1816–73), a noted medical missionary to China, described tuberculosis as "slower in its progress and less frequent than with us."² By 1910, however, James Maxwell (1836–1921) found the description of tuberculosis as a "white plague" seriously misleading: "Tuberculosis is without any shadow of a doubt more prevalent and more fatal among the Chinese than it is in Europe and America."³ In historical terms, the

2. Wang Jimin and Wu Liande, *History of Chinese Medicine: Being a Chronicle of Medical Happenings in China from Ancient Times to the Present Period*, 2nd ed. (Taipei: Southern Materials Center, 1985), p. 323.

3. W. Hamilton Jefferys and James L. Maxwell, *The Diseases of China, Including Formosa and Korea* (London: Bale and Danielson, 1910), p. 43. By 1914, the China Medical Commission of the Rockefeller Foundation was convinced that tuberculosis, hookworm, and syphilis were

palpable difference between the two men's perceptions can be traced to the early 1910s, around the fall of the Qing Dynasty and the founding of the Republic of China. As late as the 1870s, Hobson's observation still held sway among Western missionaries, even if many of them had begun to regard the phenomenon as an enigma in need of an explanation. As John Dudgeon (1837–1901) wrote, "It is difficult to say why it should be so, as the causes that produce consumption, such as bad air, insufficient food and exercise, bad hygiene, etc must be more operative, and must exist to a much greater extent here than in the more civilized countries of Europe and America."⁴ Furthermore, it is important to point out here that what Hobson called "phthisis" in 1840s and Dudgeon "consumption" in the 1870s referred to a fairly broad group of conditions characterized by emaciation in conjunction with pulmonary symptoms. Obviously, this notion cannot be equated directly with the modern disease of tuberculosis, understood in the context of the germ theory and identified unequivocally by the presence of the tubercle bacillus.

Following the establishment of the Republic of China, the sense of puzzlement vanished. In 1912, the American missionary doctor William Warder Cadbury,⁵ who received his M.D. from the University of Pennsylvania and served as professor at Canton Christian College, expressed little doubt that tuberculosis was an extremely widespread and deadly disease in China. Lacking local statistics, Cadbury turned to data collected in the United States, which stated that the mortality rate among Chinese sufferers of tuberculosis living in America was not only much higher than among whites, but also higher than among Native Americans and African Americans. Among all of the ethnic groups in New York City, the Chinese population suffered the highest mortality rate from tuberculosis in 1902. Based on this circumstantial data, Cadbury reasoned that the toll of tuberculosis in China must be astronomically high, and he thus proposed a massive crusade against the disease.⁶ In light of these newly

the most widespread diseases in China. See China Medical Commission of the Rockefeller Foundation, *Medicine in China* (New York: University of Chicago Press, 1914), p. 2.

4. John Dudgeon, *The Diseases of China: Their Causes, Conditions, and Prevalence, Contrasted with Those of Europe* (Glasgow: Dunn & Wright, 1877), p. 45.

5. After graduate study in Vienna, William Warder Cadbury received his M.D. from the University of Pennsylvania and taught there for one year. He was one of two professors when the medical school of Canton Christian College opened in 1910. He later became superintendent of Canton Hospital in 1930 and served as vice president of the Chinese Medical Association, 1935–37. See Gerald H. Choa, "Heal the Sick" Was Their Motto: *The Protestant Medical Missionaries in China* (Hong Kong: Chinese University Press, 1990), p. 160.

6. William Warder Cadbury, "Luilun feiluo suming neishang zheng" (A proposal for an antituberculosis crusade in China), *Zhonghua yibao* (Chinese medical news), 1912: 1–7.

produced, alarming statistics, Cadbury found it unbearable that both the government and the Chinese people had been so unconcerned with the number one killer in the nation.

The lack of concern that the late Qing authorities displayed toward tuberculosis was just one aspect of its disregard for the imperatives of what Ruth Rogaski has called hygienic modernity (*weisheng*).⁷ As the late Qing and the succeeding Republican regimes gradually learned the painful lesson that modern hygiene could play a crucial role in protecting China's territorial sovereignty against the foreign powers, they started building certain modern hygienic institutions, especially ones related to the surveillance and control of acute epidemic diseases such as the plague.⁸ In contrast, neither regime did much to stem the spread of chronic infectious diseases such as tuberculosis. But if little was done during the early Republican period, this was not a result of sheer ignorance, but rather a consciously formulated strategy.

This strategy was formulated by John B. Grant (1890–1962) when he launched his heroic project to promote public health in China. In 1923, Grant submitted his proposal for creating a department of hygiene at Peking Union Medical College (PUMC) to the Rockefeller Foundation.⁹ Within that proposal, he explicitly argued against trying to tackle the problem of tuberculosis at this early stage of constructing public health in China. More than anyone else, Grant knew how deeply the disease had penetrated the country's social fabric: He analyzed China's medical problems in terms of the major sources of excess mortality. First of all, he treated the death rate in Europe and America, that is, fifteen per thousand of the population, as the normal mortality rate. And then Grant reckoned that China, with a death rate of thirty per thousand, had an excess death rate of fifteen per thousand, which amounted to six million excess deaths per year. Grant never defended the accuracy of his statistical data; on the contrary, he admitted that his Chinese figures were based on an "analogy with other countries possessing statistics coupled with available fragmentary local figures."¹⁰ Nevertheless, Grant's analysis of China's medical

7. Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China* (Berkeley: University of California Press, 2004).

8. Sean Hsiang-lin Lei, "Microscope and Sovereignty: Constituting Notifiable Infectious Disease and Containing the Manchurian Plague (1910–1911)," in *Hygiene and Modernity in Chinese East Asia*, ed. Angela Leung and Charlotte Furth (Durham, N.C.: Duke University Press, forthcoming).

9. Mary Brown Bullock, *An American Transplant: The Rockefeller Foundation and Peking Union Medical College* (Berkeley: University of California Press, 1980), pp. 134–61.

10. John B. Grant, "State Medicine: A Logical Policy for China," *Nat. Med. J. China*, 1928, 14: 65–80, quotation on p. 69.

problem in terms of “excess deaths” was widely accepted and repeated by many advocates of public health throughout the Republican period.

As this analysis rendered “curative medicine” powerless in solving the problem of excess deaths in China, it paved the way for Grant’s public health-centered vision of medical construction in China. More important, if the vast number of excess deaths were to be reduced, gastrointestinal infectious disease and smallpox would have to be the focus of the effort: “Not all diseases are equally controllable through public health measures. The cause of tuberculosis, for instance, is so closely related to economic conditions that it is much harder to control than gastrointestinal diseases that lend themselves much more readily to the influence of public health measures.”¹¹

Grant concluded, “In China, where funds and personnel are limited, it would be unwise to concentrate inadequate resources on tuberculosis until the attack on the more easily controllable gastro-intestinal diseases had been well organized.”¹² Grant’s conclusion was far from the consensus among modern-trained physicians.¹³ Just a decade prior to Grant’s statement, when the modern-trained Chinese physicians had decided to establish their own National Medical Association of China in 1915 and organized the national conference in Shanghai in 1916, one of five resolutions submitted to the government concerned “the control of tuberculosis and venereal diseases.”¹⁴ In retrospect, however, prioritizing objectives was a practice of absolute necessity in the late 1920s. Even with another decade’s efforts in promoting public health, China was still far from being able to cope with acute gastrointestinal diseases. In 1934, when Grant and his colleagues surveyed urban public health, they concluded that “of the 19 surveyed cities only three had regulation for notifiable diseases. . . .

11. John B. Grant, “A Proposal for a Department of Hygiene,” (1923) in Rockefeller Foundation Archives, Rockefeller Archive Center, Sleepy Hollow, New York (hereafter RAC), box 75, folder 531, p. 17.

12. Ibid.

13. Grant was much aware of his unconventional conclusions. Therefore, he strove to articulate and defend his position in many publications, including international English-language journals. “It may be correct to give ‘Tuberculosis Control’ in the United States a relative importance of one tenth of the total possible rating for all health activities. Ascribing the same relative importance to control measures in an initial public health program in China would be injudicious, despite the fact that it is at least three times as prevalent as in the United States, inasmuch as the prevalence of tuberculosis is so closely interlinked with poor economic circumstance upon which public health has only an indirect influence.” See John B. Grant, “Appraisal of National Health Administration,” *Amer. J. Hygiene*, 1926, 6: 450–62, quotation on p. 455.

14. Anonymous, “The First National Conference,” *Nat. Med. J. China*, 1916, 2 (1): 1–3, quotation on p. 2.

Only 5 of the 19 cities have attempted to give free smallpox vaccination. . . . Cholera vaccination was not extensively practiced. . . . Immunization against diphtheria and scarlet fever was not mentioned. No measure was described for the control of venereal diseases or tuberculosis.”¹⁵

Over the following decade, as Grant’s experimental project of a Health Demonstration Station¹⁶ struggled to its feet in Beijing, Chinese public health experts followed Grant’s practical strategy and gave tuberculosis short shrift. Thus, it was not classified as a legally notifiable infectious disease, which was required by law to be reported to government authorities, and the station made no effort to locate cases in the demonstration area, taking them only as they presented themselves. In addition, the station had no X-ray equipment, and the PUMC hospital had agreed to admit only thirty health station patients annually for X-ray examinations. Furthermore, lacking its own sanatorium, the station could arrange admission to private sanatoria for only a limited number of patients who could pay their own expenses. With the exception of educational initiatives (a topic to which I shall return), the otherwise highly acclaimed health station did not make substantial efforts to control tuberculosis.

While the founding of China’s first, but short-lived, Ministry of Health¹⁷ in 1928 signaled a new recognition of the importance of health by the Republic government, it did not result in a public health-centered policy toward national health care, at least not prior to 1936.¹⁸ Even when the Republican government did devote some of its limited resources to certain aspects of public health, it deliberately avoided investing in the control of tuberculosis. Five years after setting up the Ministry of Health, Rui-heng Liu (J. Heng Liu, 1890–1961), then director of the National Health Administration and a close ally of John Grant, openly admitted that “no systematic work has been done for the prevention of tuberculosis and leprosy by the central government. The reason for this is purely a financial one.” Moreover, he saw no reason to change this approach

15. John B. Grant and T. M. P’eng, “Survey of Urban Public Health Practiced in China,” *Chinese Med. J.*, 1934, 48: 1074–79.

16. Grant’s Health Demonstration Station was praised as a pathbreaking effort to bridge the gulf between modern hygienic knowledge and the practical needs of local environments. In addition to serving as a demonstration center, the station could simultaneously function as a research center for studying the specific local situations and as an educational opportunity for students to gain firsthand experience in working in the local communities.

17. In 1930, within two years after its establishment, the Ministry of Health was abolished and replaced by the National Health Administration under the Ministry of Interior.

18. Ka-che Yip, *Health and National Reconstruction in Nationalist China: The Development of Modern Health Services, 1928–1937* (Ann Arbor, Mich.: Association for Asian Studies, 1995), pp. 41–43.

in the near future. On the contrary, “The experience in the anti-tuberculosis work throughout the world shows very clearly that any reduction of deaths from this disease stands in direct proportion to improvement in the financial conditions of the community, practically irrespective of whatever is done toward its control.”¹⁹ As late as 1944, Siming Si (also known as Szeming Sze, 1908–98), the general secretary of the Chinese Medical Association and soon cofounder of the World Health Organization, stated flatly that “the establishment of special hospitals and sanitaria for tuberculosis, venereal disease, and leprosy cases by the government is not only beyond the limits of the budgets now permitted, but is not urgently necessary.”²⁰ As revealed by these public statements, the professional and governmental leaders of China took credit for formulating a practical policy for improving China’s health situation, even though it entailed the delay of governmental investment to cope with the number one cause of death in China.

The policy of deprioritizing tuberculosis continued till the very end of the Sino-Japanese war. In 1946, the Republican government finally planned to implement an ambitious project of State Medicine, an extreme form of national health service completely staffed, sponsored, and controlled by the state. As part of this plan, it decided to upgrade the National Health Administration into a Ministry of Health and to build five tuberculosis sanitaria, each with five hundred beds, in five major areas of the country.²¹ Because the Republican government never had the opportunity to realize this plan before it was forced to withdraw to Taiwan, the control of tuberculosis did not take place until the Communists took over China in 1949.²² Since the Republican government’s noninterventionist policy toward tuberculosis was built upon the understanding that tuberculosis was a social disease, it was no wonder that advocates of the antituberculosis movement had to develop a new framework for this disease with a feasible objective, whereby they could motivate the public to join the crusade.

19. J. Heng Liu, “Hygiene and Public Health: Some Phases of Public Health Work in China,” *Chinese Med. J.*, 1934, 48: 70–73, quotation on p. 73.

20. Szeming Sze, *China’s Health Problems* (Washington, D.C.: Chinese Medical Association, 1944), p. 26.

21. Anonymous, *Weisheng Jianshe Wunian Jihua Caoan* (Guideline for the Five-Year Plan of Health Construction) (Nanjing, China: Weishengshu, 1946).

22. Zhang Yixia and Mark Elvin, “Environment and Tuberculosis in Modern China,” in *Sediments of Time: Environment and Society in Chinese History*, ed. Mark Elvin and Liu Ts’ui-jung (Cambridge: Cambridge University Press, 1998), pp. 520–44, esp. p. 541.

The Rise of the Tuberculosis Crisis in China

While the Republican government largely followed Grant's strategy of deprioritizing tuberculosis until the end of the Sino-Japanese war, the rise of a semigovernmental antituberculosis movement in the early 1930s nevertheless turned tuberculosis into a highly visible national health issue.²³ The National Anti-Tuberculosis Association of China (Zhongguo Fanglao Xiehui, NATAC) was established in Shanghai in October 1933. Its small organizing committee consisted of three people: Wu Liande, G. F. Bume (National College of Medicine Red Cross Hospital, Shanghai), and Li Tingan (1898–1948), a Harvard graduate and director of the Municipal Health Administration, Shanghai.²⁴ According to a retrospective account published by NATAC in 1950, the organization was founded by the National Medical Association of China and the Shanghai Municipal Health Administration.²⁵ During its first membership drive, it succeeded in recruiting around three hundred members with donations amounting to eighteen thousand dollars. It is worth mentioning that more than half of this amount, ten thousand dollars to be precise, actually came from Jiang Jieshi (Chiang Kai-shek, 1887–1975), generalissimo of the Nationalist Government. Wu Tiecheng (1888–1953), the mayor of Shanghai, not only served as the honorary captain of the association but also hosted the second membership drive in his own residence. Moreover, the list of its board members presents almost a who's who of China's medical leaders, such as the director of the National Health Administration, Liu Ruihen, and most of the presidents of the National Medical Association of China (NMAC), including Yan Fuqing, Wu Liande, Diao Xinde, and Niu Huisheng. Clearly, this civil association enjoyed very close connections with both the Nationalist and the Shanghai municipal government and the NMAC.

One of the most important objectives of the antituberculosis movement was to popularize the idea that China was suffering from a tuberculosis

23. In the official publication *Reconstruction in China*, published in 1935, Tang Leang-li provided a detailed report on the progress of public health measures under the Republican government. While the author noted that epidemics were the top priority of the Central Field Health Station and documented many of the steps taken to achieve this objective, he did not mention any initiatives aimed at tuberculosis. See Tang Leang-li, *Reconstruction in China: A Record of Progress and Achievement in Facts and Figures* (Shanghai: China United Press, 1935), pp. 105–34.

24. "Our First Tuberculosis Conference," *Chinese Med. J.*, 1934, 48: 318–19.

25. Zhongguo Fanglao Xiehui, *Zhongguo Fanglao Shiliao* (The Historical Documents concerning the National Anti-Tuberculosis Association of China) (Shanghai: Zhongguo Fanglao Xiehui, 1983), p. 47.

crisis. Instead of relying on personal impressions, newly produced statistics played the crucial role this time in making this little-noticed crisis visible. *On Tuberculosis* (*Laobing Lun*), one of the earliest Chinese books on tuberculosis, was written in 1927 by Dr. Lu Yongchun (1892–1945), who, in addition to being a member of NATAc, was a famous TB expert at PUMC and the director of one of the earliest sanitaria in Beijing. Thanks to both NATAc's and NMAC's efforts of promotion, Lu's book became the most widely circulated Chinese book on tuberculosis at that time. When Lu estimated the national mortality rate caused by tuberculosis, he basically relied on the statistics that John Grant and his colleagues had collected during the 1920s in Beijing's First Health Demonstration Station. Since the sample data in Grant's study suggested that of every 10,000 citizens 307 people died from tuberculosis, a simple multiplication led to the conclusion that more than 1.2 million people died from tuberculosis in China each year. According to this estimate, tuberculosis not only ranked as the country's most deadly disease, it affected China more than it did any other country and ranked China's mortality rate from tuberculosis ten times higher than that of Canada.²⁶

There is no doubt that an estimate like this was highly speculative, especially given the fact that the First Health Demonstration Station served around 110,000 residents but China had a population of 400 million. It was clearly too small a sample for such a large and diverse country. Moreover, even within the population covered by the First Health Demonstration Station, the mortality rate from tuberculosis dropped steadily from 435 in 1926 to 328 in 1927, from 376 in 1928 to 258 in 1929, and then rose slightly from 200 in 1930 to 223 in 1931. The number 307, which Lu adopted, was nothing but the average of these numbers. While the steady decline in mortality reflects—and hence can be explained by—the improvements of health within the demonstrated area, it also indicates that these numbers were far from representative of the national situation.

Other estimates were no less problematic. In quite a few instances, public health experts extrapolated numbers from the statistics gathered in metropolitan areas, even in their foreign concessions, such as Shanghai and Hong Kong.²⁷ This methodological problem was so obvious that

26. Lu Yongchun, *Laobing Lun* (On Tuberculosis) (Beijing: Zhonghua Yixuehui, 1929 [1927]), pp. 17–18.

27. Lai Douyan, “Guanyu Zhongguo jiehebing de jige tongji” (The incidence of tuberculosis in China: A statistical study), *Zhonghua yixue zazhi* (Chinese Med. J., Chinese ed.), 1934, 20 (7): 903–14. It is worth pointing out that the Chinese Medical Association collaborated with seventeen hospitals around the country in a major survey on the prevalence of tuberculosis.

many public health experts were keenly aware of it. For example, G. A. M. Hall,²⁸ a physician at PUMC and Beijing (Peiping) Tuberculosis Center with more than twelve years of experience in treating tuberculosis patients in northern China, asserted: “An estimate of the incidence, mortality and types of tuberculosis existing in China today cannot be made with any degree of accuracy. Such vital statistics as are available are unreliable, and refer only to the few foreign-controlled concessions and Treaty Ports in which commercial endeavor and industrialization have created conditions differing entirely from those existing in other parts of the country.”²⁹

While scholars like Hall hinted at the possibility that the estimated incidence was exaggerated, most nevertheless joined in the chorus of alarm. On this apparent inconsistency, public health expert Dr. Frank Oldt at the Canton Hospital made perhaps the most honest and therefore most revealing comment: “Tuberculosis is the greatest single cause of death in China. This is only an opinion; yet it is hardly probable that anyone would care to question it.”³⁰ Hoping perhaps to push the government and the public to take action, most experts were willing to live with, and even to popularize, these problematic estimations. This was indeed the case with NATAC.³¹ In the end, people knew very well that the precision of these numbers did not matter at all; they would never be used in any serious planning of health policy. These numbers were just tools for awakening the government and the Chinese people to this crisis of a national scale. Or more precisely, for these health advocates, the virtue of the numerical data did not lie in their precision or objectivity, but in their comparability. Without these numbers, they would not have been able to compare the problem of tuberculosis with other deadly diseases, and more importantly,

28. G. A. M. Hall was affiliated with both the Division of Dermatology and Syphilology at the Department of Medicine, Peking Union Medical College, and the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis at the University of Pennsylvania in the 1930s. He was trained as an internist, but in the mid-1930s became interested in the epidemiology of tuberculosis and tried to persuade the Rockefeller Foundation to establish a Tuberculosis Research Center within PUMC in 1935.

29. G. A. M. Hall, “Tuberculosis in China,” *Brit. J. Tuberc.*, 1935, 29 (3): 132–44, quotation on p. 135.

30. Frank Oldt, “Tuberculosis in Kwangtung: According to Age, Sex, Occupation, and Economic Condition,” *Chinese Med. J.*, 1933, 47: 111–27, quotation on p. 111.

31. While the association strove to popularize the idea that China was the country suffering most from tuberculosis, in its future plan to establish a research association for tuberculosis it admitted “although we have experts’ surveys in Peiking (Beiping), Guangzhou, and Shanghai and we used their results as the national average, the number is just a hypothesis. By no means can it fairly represent the national situation.” *Zhongguo Fanglao Xiehui Disanjie Zhengmu Dahui Tekan* (A Special Issue for the Third Recruitment Campaign of the Chinese Anti-Tuberculosis Association) (Shanghai: Zhongguo Fanglao Xiehui, 1936), pp. 14, 33.

to compare the situation in China with that in other countries. It was for the purpose of comparison that these problematic numbers were widely circulated and reproduced in almost every article and essay on tuberculosis, no matter whether it was written by public health experts, progressive intellectuals, ordinary citizens, or just high school students. By means of these numbers, they convinced each other that in comparison to other countries, China was indeed a *Laobingguo*, literally, a “nation of tuberculosis.” In quite a few places, people asserted that it was tuberculosis that gave China the humiliating image of being the “Sick Man of East Asia.”³²

As the new picture of China in the grip of a tuberculosis crisis emerged, the enigma that had long puzzled medical missionaries gained a new life, albeit in a reverted form. No longer puzzling over why tuberculosis was less prevalent in unhygienic China than in the civilized West, in the 1930s public health experts wondered how an agrarian China could suffer more than Western countries from a disease widely thought to be caused by industrialization and urbanization.³³ Only two explanations seemed possible. The first was that the surveys done in treaty ports had exaggerated the incidence of the disease; the other was that previously unrecognized local factors had to be responsible.

Quite a few surveys suggested that researchers in China had to look beyond social and economic vulnerability to understand the extraordinary spread of the disease here. In the self-professed first statistical study of TB in China, John Hamilton Korns (1883–1959), an M.D. from the University of Chicago and professor at PUMC, discovered that compared with other occupational groups, “tuberculosis among students in China is disproportionately frequent.”³⁴ And when he conducted tuberculin skin tests, Korns found fewer reactors in poor children than in their better-off counterparts.³⁵

32. For the sake of saving space, I will provide only the volume and page numbers of *Fanglao Yuekan* (Anti-Tuberculosis Monthly), 1935: 1 (7), p. 533; 1 (11), p. 620; and 1 (12), p. 631.

33. Rene and Jean Dubos emphasized in the 1950s that the spread of tuberculosis during the nineteenth century was the outcome of the social tragedies that followed in the wake of the industrial revolution, rather than the consequence of city life per se. They concluded: “Tuberculosis was, in effect, the social disease of the nineteenth century, perhaps the first penalty that capitalist society had to pay for the ruthless exploitation of labor.” See Rene and Jean Dubos, *The White Plague: Tuberculosis, Man and Society* (1952; reprint, New Brunswick, N.J.: Rutgers University Press, 1987), pp. 199 and 207.

34. John Korns, “Tuberculosis in China: A Statistical Study,” *Amer. Rev. Tuberc.*, 1928, 18 (3): 323–35, quotation on p. 326.

35. John H. Korns, “Incidence of Tuberculosis Infection in China,” *China Med. J.*, 1925, 39: 10–19, esp. p. 10. Quoted in W. M. Li, “Suggested Tuberculosis Study: Tuberculin Test,” RAC, record group 1.1, series 601T, sub series 447, box 53, folder 601T, p. 5.

During this period, the most detailed survey of TB prevalence in China was based on an analysis of thirty thousand tuberculosis patients from Canton Hospital (1914–25, 1929–31) and David Gregg Hospital for Women (1927–30). Among all the patients suffering from various diseases in these hospitals, the author was surprised to find that the tuberculosis infection rate was actually three times higher among patients in private rooms than among patients in wards.³⁶ Since a stay in the wards cost about one-tenth to one-half of a stay in a private room, these data suggest that tuberculosis was much more prevalent among upper-class patients than among the poor. This surprising discovery was confirmed by an analysis based on occupational groups: infection rates among professionals were more than three times higher than those among laborers.

Rather than being determined by wealth, susceptibility to tuberculosis seemed to be connected to how a person spent his or her days. Businessmen and housewives, who spent most of their time indoors, suffered the highest infection rates. Even stronger evidence came from a comparison between the relatively better-off class of artisans and the class of the working poor: Artisans experienced twice the infection rate of laborers and of farmers who spent lots of time outdoors. Still, the author was careful not to place too high a value on a survey of hospital patients: “Care must be taken to draw general conclusions.”³⁷

Instead of challenging this surprising finding, Lai Douyan, a graduate from the University of Chicago and a professor of Public Health at the National Medical College of Shanghai, further pushed the logic of this discovery to its extreme:³⁸

In recent years, some people suggested that the prevalence of tuberculosis was attributable to the national economy and was very little affected by attempts at prevention. This is a very partial observation, and by no means should it be taken as settled fact. The rich people in our country are quite different from those in Europe and America. They prefer to congregate in large numbers, dislike outdoor activities, and call the kind of woman threatened by a gust of wind a paragon of beauty. The rich, as a result, are more likely than the poor laboring masses to be infected with tuberculosis. That is the crucial difference between China and the West.

36. Lai, “Guanyu Zhongguo jiehebing” (n. 27), p. 906.

37. Oldt, “Tuberculosis in Kwangtung” (n. 30), p. 127.

38. Contemporaries realized that the tuberculosis statistics collected within hospitals were far from reliable. John Korns pointed out in 1925: “Those hospitals that make careful diagnoses, as a rule admit few if any cases of pulmonary tuberculosis; consequently, their statistics do not serve as a criterion for judging the incidence of this form of the disease.” See Korns, “Incidence of Tuberculosis Infection” (n. 35), p. 10.

In China, “economy was not the key cause of tuberculosis,” concluded Dr. Lai.³⁹

Like many other surveys conducted in the 1930s, the Guangzhou study could hardly be generalized. For one, this survey was conducted within a hospital, ignoring those who had not received any treatment. At that time, even in the nation’s capital of Nanjing, one-third of the population expired without receiving any medical care at all.⁴⁰ Those who went to a hospital for medical assistance were already a preselected section of the general population. Many public health experts recognized the problematic basis of this claim just as that they had suspicions regarding the claim that China was the number one victim of tuberculosis.

While Lai’s conclusion must have been exaggerated, it does reveal the important fact that some health experts entertained the idea that crucial differences existed between tuberculosis in China and tuberculosis in the West. Among those differences, a prominent one lie in the different social images of tuberculosis patients in the two societies. Unlike the Western sufferer, who was seen first as a romantic martyr and then a poor victim of the ills of industrial society, the Chinese patient was not represented by either poor factory workers or farmers.⁴¹ Instead, Chinese victims of TB seemed to be people who were still capable of enjoying the traditional lifestyle and embodying Chinese aesthetics. The foregrounding of rich patients and their lifestyle was a deliberate, if implicit, move to reject social class as the major characteristic of Chinese tuberculosis patients. As I will argue in the next section, instead of being understood as a social disease of modern industrialization, which affected all industrializing countries, albeit to different degrees, to many health advocates in China, China’s tuberculosis problem was very different in nature. In short, tuberculosis in China was a disease of the family, more precisely, a disease of the traditional Chinese family. China’s tuberculosis problem was different from all the other modernizing countries not because of its sheer magnitude, but because it was caused by a peculiar Chinese phenomenon. As advocates came to see a crucial difference between tuberculosis in China and in the West, people started using tuberculosis as a framework for compar-

39. Lai, “Guanyu Zhongguo jiehebing” (n. 27), p. 906.

40. Wang Zuxiang, *Weisheng xingzheng sanshinian suoyi* (Recollections on thirty years of work in public health administration) (Taipei: Weisheng zazhi she, 1953), p. 10.

41. According to Katherine Ott, American medical writers began to associate tuberculosis with poverty and the “dangerous classes” in the 1890s. That was the moment for a reconfiguration of the identity of the consumptive patient and resulted in permanent stigmatization. See Katherine Ott, *Feavered Lives: Tuberculosis in American Culture since 1870* (Cambridge, Mass.: Harvard University Press, 1996), p. 70.

ing and articulating the fundamental difference between two societies and, perhaps most importantly, for demanding a radical transformation of Chinese society in the name of hygiene.⁴²

Unhygienic Habits and the Intimate Family

Was tuberculosis a problem “caused by special racial endowments or by bad habits of life”?⁴³ Having posed this question in an article on “the Chinese and tuberculosis,” Ge Chenghui (1891–1970), a pioneering woman doctor graduated from Yale Medical School, took it as almost axiomatic that Chinese vulnerability to tuberculosis had nothing to do with racial characteristics and everything to do with their daily habits. There is nothing extraordinary about tracing China’s various problems to Chinese habits of daily life, particularly those related to hygiene. When progressive intellectuals started criticizing the lack of hygiene around the turn of the century, very often they were less concerned with public health infrastructure than with etiquette.⁴⁴ They came up with list after list of “the bad habits of the Chinese,” among which many were associated with the spread of tuberculosis.⁴⁵ To cite an example, “Habits are such as to ensure the dissemination of a bacillary infection within the family. In the home, as also in the village inns, the brick bed is common to all, sick or well. Spitting is a universal and accepted habit in homes, in public places, and in the streets. Food is taken from a common bowl, with the chopsticks conveying it to the individual mouth.”⁴⁶ Thus when G. A. Hall tried, as

42. A volume edited by Charles E. Rosenberg and Janet Golden provides excellent examples of how the analysis of disease can become a framework for larger social and cultural issues. See in particular Charles Rosenberg, “Framing Disease: Illness, Society, and History,” in *Framing Disease: Studies in Cultural History*, ed. Charles E. Rosenberg and Janet Golden (New Brunswick, N.J.: Rutgers University Press, 1992), pp. xiii–xiv.

43. Ge Chenghui, “Zhongguoren yu jiehebing” (The Chinese and tuberculosis), *Kexue (Science)*, 1935, 10 (5): 587–96, quotation on p. 589.

44. On the emergence of the discourse of *weisheng* (hygiene) in China, see Rogaski, *Hygienic Modernity* (n. 7).

45. For example, see Zhang Yichang, “Guoren buweisheng de exi” (The unhygienic habits of my countrymen), “Xinyi yu shehui” jikan (Collected essays from “New Medicine and Society”), 1934, 2: 156; and Oldt, “Tuberculosis in Kwangtung” (n. 30), pp. 122–23.

46. Hall, “Tuberculosis in China” (n. 29), p. 134. Echoing these sentiments, another author stated: “Certain ancient customs in social and individual life are closely connected with the epidemiology of tuberculosis in this country. The large families, in the first place, are an important factor in our consideration. As we all know, family members live in close contact and although kissing is less customary than in the West, eating out of the same dishes, two or more persons sleeping together in small and badly ventilated rooms, the popular fear of cold and fresh air are serious factors favoring contagion within the family.” See G. F. Bume, “The Tuberculosis Problem in China,” *Chinese Med. J.*, 1933, 47: 128–37, quotation on p. 132.

Lai and many others had, to account for the perceived tuberculosis crisis in China, he settled on three infamous habits: spitting and the intimate habits of eating and sleeping together.

As the historian John Fitzgerald has insightfully pointed out, ever since Lord McCartney visited Beijing in 1793, spitting was seen as the trademark of "John Chinaman." The prevalence of this racist stereotype among Westerners and its impact on Chinese national pride were even more evident over a century later when Sun Yatsen (1866–1925), the founding father of the Republic of China and a Western-trained physician, interrupted the last of his public lectures on the "three principles of the people" to counsel his audience against spitting and burping in public "because this habit revealed to Westerners that Chinese people had no control even over their own bodies."⁴⁷

Spitting was not only an uncivilized habit, deeply damaging to national pride; it was also, after the arrival of the so-called bacterial revolution, blamed for the spread of tuberculosis.⁴⁸ A public health expert at PUMC, for instance, listed eight ways to prevent tuberculosis, all related to controlling the circulation of phlegm between bodies. In that case, a very important distinction was made between spitting as an uncivilized act and an unhygienic one. In terms of hygiene, the point was not to abstain from spitting altogether but rather to manage contagious phlegm. It was understood that if a tuberculosis patient swallowed germ-ridden phlegm to avoid spitting, he or she would risk suffering the more serious problem of intestinal tuberculosis. Instead of not spitting, one should make sure to use a spittoon filled with disinfectant. This idea led the Japanese government to pass a "spittoon law" in 1904, mandating the placement of spittoons in all public places.⁴⁹ Moreover, public spittoons were much discussed at the 1905 International Tuberculosis Congress in Paris.⁵⁰

Though nobody went as far as saying that the people of China held a monopoly on public spitting, many felt that there was something distinctively Chinese about communal eating (*gong shi*), the number one unhygienic habit on most intellectuals' lists.⁵¹ Western observers had long

47. John Fitzgerald, *Awakening China* (Stanford, Calif.: Stanford University Press, 1996), pp. 9–12.

48. On the identification of spitting as the main vehicle for the spread of tuberculosis and the associated "history of disgust" in a different context, see David Barnes, *The Making of a Social Disease: Tuberculosis in Nineteenth-Century France* (Berkeley: University of California Press, 1995), pp. 83–91.

49. William Johnston, *The Modern Epidemic: A History of Tuberculosis in Japan* (Cambridge, Mass.: Harvard University Press, 1995), p. 227.

50. Barnes, *Making of a Social Disease* (n. 48), p. 87.

51. Zhang, "Guoren buweisheng de exi" (n. 45), p. 156; and Yu Yan, "Gongshizhi yu feilao" (Communal eating and feilao), in *Yushi yishu* (Mr. Yu's comments on medicine), 10 vols. (Shanghai: Shehui yibao guang, 1928), 6: 1–2.

blamed shared bowls for the spread of infectious disease: since every diner at a Chinese table used the same pair of chopsticks to convey food to the mouth and to serve him or herself directly from the communal serving dishes, a fair bit of saliva exchange was unavoidable.

At the conference of the Missionary Medical Association held in Shanghai in 1915, Wu Liande, fresh from his victory over the Manchurian plague, was asked by an American colleague to devise a hygienic alternative to Chinese dining practices; eight months later, Wu published an illustrated article entitled “A Hygienic Chinese Dining Table” in the first issue of the *National Medical Journal of China*.⁵² Before announcing his design, Wu identified three potential solutions. The ideal practice was that of the West: an entire meal served on an individual plate. However, Wu did not consider this an appropriate way to enjoy Chinese dishes. While Wu never specified the reasons behind this important judgment, another health expert in the early 1950s in Taiwan, also in the context of tuberculosis prevention, elaborated on the reasons why the Western individualized style of dining, *fenshizhi*, got in the way of enjoying Chinese cuisine. “Because Chinese culinary art emphasizes the display of the whole thing, such as stewed chicken, roast duck, and steamed fish, if these dishes are cut into pieces and separated onto individual plates for each diner, [this way of serving] really misses the whole point,”⁵³ said Luan Xiaowen, an expert at the governmental antituberculosis center of Jiayi County.

The second solution called for each diner to have two pairs of chopsticks, one for transferring food from the common plate to one’s own and the other for eating. Some people had already adopted this practice; one author pointed out that the pair used for delivering food into one’s mouth should be painted red to signify danger. Apparently, the author had experimented with this method and then discovered how easily one would get confused about the separate roles of the two pairs of chopsticks.⁵⁴ No wonder that Wu found this method too inconvenient to be practical!

Having rejected the first two options, Wu came up with the hygienic table (*weisheng cantai*), an object that later became widely used in Chinese restaurants the world over, called a “lazy Susan” in the United States.⁵⁵ A

52. Wu Liande, “A Hygienic Chinese Dining Table,” *Nat. Med. J. China*, 1915, 1 (1): 7–8.

53. Luan Xiaowen, ed. *Fanglao Changshi* (Commonsense of Tuberculosis Prevention) (Taipei: Zhengzhong Shuju, 1953), p. 5.

54. Fang Kan, “Fanglao Guangbo Yanjiang” (A Broadcasted Speech on the Prevention of Tuberculosis), *Fanglao Zazhi* (Anti-Tuberculosis Magazine), 1935, 1 (7): 377–81, esp. p. 380.

55. The hygienic table actually originated from an American invention. Despite Wu’s claims, it seems likely that Wu took his idea from the lazy Susans of the United States, which

round platform that rotates on a low pedestal, the hygienic table accommodates dishes of food as they emerge from the kitchen—they are placed on the periphery of the platform. Using the pair of chopsticks or spoon placed beside each serving dish, each diner serves him- or herself by first rotating the platform until the desired dish is close at hand, then transferring food from the common dish to his or her own plate or bowl. There is nothing intrinsically hygienic about this rotating plate. In order to serve the purpose of hygiene, one had to use this plate along with the shared serving chopsticks and spoons placed next to each dish. If Wu did invent the hygienic table, as he claimed in a scientific article on tuberculosis published in 1934, this popular piece of Chinese furniture would have originated in the concern about tuberculosis.⁵⁶ In this sense, the hygienic table is a material embodiment of a compromise between modern hygiene and Chinese custom.

In this context, it is important to point out that unlike spitting, the role of which in the spread of tuberculosis was quickly accepted by the international scientific community, the causal link between communal eating and pulmonary tuberculosis was not well established scientifically. By the end of the nineteenth century, scientists and doctors were convinced that pulmonary tuberculosis was an airborne disease, transmitted by dried and pulverized sputum carried in the air.⁵⁷ Alternatively, a person could contract pulmonary tuberculosis from inhaling droplets from a cough or sneeze by an infected person. In both cases, tubercle bacilli entered the lung through respiratory tracts. Curiously, when Chinese doctors blamed communal eating for the spread of pulmonary tuberculosis in the 1920s and 1930s, almost no one found it strange or bothered to explain how an airborne disease could be transmitted through the digestive system.⁵⁸

were widely used in San Francisco's Chinese restaurants. The history of the hygienic table, including its invention, distribution, use, and evolution, has yet to be written and no doubt would tell us a great deal about how the Chinese people materially transformed their lives in response to the germ theory of disease. For a brief discussion of this history, see Endymion Wilkinson, *Chinese History: A Manual* (Cambridge, Mass.: Harvard University Press, 1998), p. 635. I would like to thank Cheng Lingfang for telling me about the lazy Susan and Kim Taylor for the preceding reference.

56. Wu Liande, "Jiehebing" (Tuberculosis), *Zhonghua yixue zazhi* (The Chinese Medical Journal), 1934, 20: 65–97, esp. pp. 95–96. It is worth pointing out that while Wu described the connection between poverty and the deadliness of tuberculosis in New York City, his discussion of how to combat tuberculosis in China gave far greater prominence to reforming unhygienic habits than to issues related to economics.

57. Leonard G. Wilson, "The Historical Decline of Tuberculosis in Europe and America: Its Causes and Significance," *J. Hist. Med. & All. Sci.*, 1990, 45: 366–96, esp. p. 394.

58. I would like to thank Dr. Shu-ching Chang and Professor Yungsik Kim for separately bringing this question to my attention.

While G. A. M. Hall in 1935 included communal eating as a major channel for the spread of tuberculosis in China, two years later he conceded, “chopsticks and the use of the common food-dishes have been accused, without sufficient evidence, as spreaders of contagion.”⁵⁹ For people like Hall, the causal link between communal eating and pulmonary tuberculosis was clearly an issue for debate. Nevertheless, Lu Yungchun considered it a fact because some experiments had proven that tubercle bacilli could move from the digestive tracts to the lymph and blood systems and finally reach the lung.⁶⁰ Therefore, Lu concluded, pulmonary tuberculosis, the most common form of tuberculosis in China, could be transmitted by way of both the respiratory and the digestive system. Apparently, most of Lu’s contemporary antituberculosis advocates, including the Cambridge-trained Wu Liande, agreed with his conclusion as they strove to reform the communal eating system for the sake of solving China’s tuberculosis problem.

The Refashioning of a Family Disease

Given the fact that so many people believed that local customs could explain the rampant spread of tuberculosis, it is not surprising that some of them tried to address the problem that John Grant had strategically shied away from in the 1920s. For example, S. F. Bume, one of the three founding members of NATAc, saw the greatest obstacle for an antituberculosis campaign in the idea that “raising social and economic standard is the chief, if not the only effective, means to combat tuberculosis.”⁶¹ Most revealing is what Hall had to say in 1937: “It has been said that the tuberculosis is an economic problem, and that nothing can be done to control tuberculosis until the economic level of the country is improved. The attitude is incorrect and unjustifiable. Tuberculosis is a specific and contagious disease, and, if correct principles are followed, schemes which are effective in its control can be adapted to communities at any economic level.”⁶² The key, Hall believed, was to think in terms of contagion. To slow the spread of the disease, Hall proposed a simple two-step plan he thought practicable in communities at every economic level: (1)

59. G. A. M. Hall, “Contagion in Tuberculosis,” *Chinese Med. J.*, 1937, 51: 905–18, quotation on p. 913.

60. Lu Yungchun, “Laobing De Chuanran” (On Infection of Tuberculosis), *Fanglao Zazhi* (Anti-Tuberculosis Magazine), 1935, 1 (9): 481–91, especially pp. 486–87.

61. G. F. Bume, “Tuberculosis Dispensary and Its Place in the Control of the Disease,” *Chinese Med. J.*, 1934, 48: 308–17, quotation on p. 309.

62. G. A. M. Hall, “The Establishment of Anti-Tuberculosis Clinics in China,” *Chinese Med. J.*, 1937, 51: 1947–55, quotation on p. 1047.

identifying the major sources of contagion by means of “case-finding” and “contact” studies and (2) cutting off the major pathways of contagion by isolating the infectious individuals.⁶³

The biggest problem in China, Hall found, was contagion within families. This fact had been known for some time, and previous studies had shown that anyone with a family member spitting up tubercle bacilli was five to thirteen times more likely to contract tuberculosis than a member of the general populace.⁶⁴ However, two peculiar characteristics of the traditional Chinese family were blamed for constituting a particularly serious source of TB contagion: the large size of extended family and the particularly “intimate” way in which Chinese people lived with their family members. Despite the popular ideal of three or four generations living under one roof, recent studies have shown that the urban poor in early-nineteenth-century China tended to live in much smaller families. In fact, in the 1920s and 1930s, two-generation families made up about one-third to one-half of Chinese households.⁶⁵ Still, Hall took for granted the prevalence of the extended family. “Not only do the parents have to be considered,” he emphasized, “but grandparents, uncles, aunts, cousins, and especially servants, have frequently been the person who has had the most intimate contact with the children.”⁶⁶

Moreover, “intra-familial contact in China is generally intimate, as custom as well as poverty tend to crowd the family together for sleeping.”⁶⁷ One study found that 23.5 percent of “secondary cases” had been sleeping in the same room with the carrier and 26.9 percent had used the same bed. Compared with the “frequent and repeated infections” within the Chinese family, extra-familial contagion was negligible. In light of these findings, Hall advocated home isolation, that is, removing the patient “from the family kang (fire-warmed brick platform) to sleep in his or her own bed in a corner of the common bedroom.”⁶⁸

In her abovementioned article titled “The Chinese and Tuberculosis,” Ge Chenghui cites many of the contributing factors listed by Hall, adding

63. Ibid.

64. Ibid., p. 1050.

65. Rubie Watson, “Families in China: Ties That Bind?” Paper presented at the symposium on “The Family Model in Chinese Art and Culture,” Princeton University, November 6–7, 2004. When he examined the results of a survey of four thousand families living in Beijing in the 1910s, William G. Lennox was surprised to find that the urban poor had much smaller families than was generally supposed. See William G. Lennox, “Some Vital Statistics: Based on the Histories of 4000 Chinese Families,” *Chinese Med. J.*, 1919, 33: 325–58.

66. Hall, “Contagion in Tuberculosis” (n. 59), p. 913.

67. Ibid.

68. Hall, “Establishment of Anti-Tuberculosis Clinics” (n. 62), p. 1049.

the significant detail that the Chinese people were accustomed to sleeping with the windows tightly closed. According to Katherine Ott's study of tuberculosis in American culture, because of the fear of night air, virtually no one in the United States slept with the windows open until the 1910s, when people suddenly changed this habit. Ott points out that "one of the most important goals of the home rest cure was to provide the greatest amount of fresh air possible, to 'bring the outdoors in.' Windows were left open all year."⁶⁹ But innumerable Chinese medical texts, from antiquity to the twentieth century, named wind as "the chief of various kinds of illnesses" and associated all sort of acute and serious illness with the cause of wind.⁷⁰ Promoters of modern medicine mocked such beliefs and campaigned to bring fresh air into stuffy bedrooms. At PUMC's health demonstration station, a newly designed poster read, "I sleep more than ten hours every night and make sure the window is open."⁷¹ The poster shows a child sleeping beside a window with the curtains waving in the breeze.

For Ge, these family habits—sharing meals, sharing the bed, and sleeping with closed windows—in combination provided the tuberculosis bacillus with a perfect opportunity to spread within the self-contained space of the extended family, closed off to the outside world. "If one member of the family is infected, soon enough half the family succumbs. Hence the name 'corpse-transmitted consumption' [*chuanshi lao*] was given to tuberculosis in the past."⁷² While it appears at first sight that Ge used the traditional name and etiology of *chuanshi lao* to support a new understanding of family contagion, her thinking in fact involved a radical shift in the meaning of tuberculosis (*laobing*) as a family-centered disease from premodern to Republican China. In premodern China, "*laobing*," a general term that included the variety of *chuanshi lao* was among a handful of diseases considered transmissible by person-to-person contact. Among its many traditional varieties, corpse-transmitted *lao*, first discussed in the seventh century, attracted the attention of many modern-trained physicians because, unlike depletion *lao* (*xulao*) which was popular in the late

69. Ott, *Fevered Lives* (n. 41), p. 89.

70. Shigehisa Kuriyama, "The Imagination of Winds and the Development of the Chinese Conception of the Body," in *Body, Subject and Power in China*, ed. Angela Zito and Tani E. Barlow (Chicago: University of Chicago Press, 1994), pp. 23–41.

71. "Fourth Annual Report, Health Station, 1928–1929," RAC, record group 5, series 3, box 219, folder 2737, p. 111. Young students were instructed to draw pictures to illustrate the new practice. See "Eighth Annual Report of Student Competitive Health Drawing," RAC, record group 5, series 3, box 220, folder 2741.

72. Ge, "Zhongguoren yu jiehebing" (n. 43), p. 589.

empirical period, corpse-transmitted *lao* provided solid evidence that the early Chinese might not have known about germs but had correctly recognized, at least for a period of time, the contagious nature of *laobing*/tuberculosis. As medical historian Bridie Andrews has pointed out, the etiological narrative of corpse-transmitted *lao* involved disease-causing “worms” moving out from a wasted corpse into a new, living body. As the result of serial infections by these worms, several members of one family often suffered and eventually died from the same wasting disease.⁷³

Here we must note that according to the conventional etiology of corpse-transmitted *lao*, these wasting worms behaved very differently from modern germs. To begin with, it was only after the patient had passed away that the worms moved out of the body or, more precisely, the corpse; therefore, this disease was called “corpse-transmitted consumption.” Second, these worms did not attack people simply because they happened to be close by. They attacked family members specifically because the very basis of their transmission was the Buddhist and Daoist idea of shared guilt or collective responsibility for the entire lineage.⁷⁴ Since the act of transmission by worms took place only after the original host had passed away, this process in fact sounds very similar to the inheritance of property, or debt, from deceased family members. In other words, people were aware of the communicability of *laobing* among family members but they attributed this phenomenon to the moral membership in the lineage. Instead of emphasizing this moral and religious membership or hereditary nature of *laobing*, modern public health advocates used the term “family” in a new way as a reference to the common residence in which family members lived their daily lives together. In light of the fact that modern-trained doctors generally avoided using traditional and misleading names such as corpse-transmitted *lao* during the Republican period, Ge’s deliberate use of this dreadful term shows how much she wanted to present the family as the key to the spread of tuberculosis in China. For similar reasons, a few modern-trained medical experts promoted another nickname for

73. Bridie Andrews, “Tuberculosis and the Assimilation of Germ Theory in China, 1895–1937,” *J. Hist. Med. & All. Sci.*, 1997, 52: 114–57, esp. p. 128.

74. For the history of the notion of contagion as hereditary transmission within the family, see Angela Ki-che Leung, “Evolution of the Idea of ‘Chuanran’ Contagion in Imperial China,” in *Hygiene and Modernity in Chinese East Asia*, ed. Angela Leung and Charlotte Furth (Durham, N.C.: Duke University Press, forthcoming). See also Li Jianmin, “Contagion and Its Consequences: The Problem of Death Pollution in Ancient China,” in *Medicine and the History of the Body. Proceedings of the 20th, 21th and 22th International Symposium on the Comparative History of Medicine—East and West*, ed. Yasuo Otsuka, Shizu Sakai, and Shehehisa Kuriyama (Tokyo: Ishiyaku Euro America, 1999), p. 203.

laobing: *xijiabing* or “the disease that wipes out or bankrupts the family.”⁷⁵ On the basis of this continuous connection between tuberculosis/laobing and the family, there arose a novel fear of intimate contact between family members and thus a newly felt need to protect oneself against other family members.

Far from being exceptional, isolated cases, Hall and Ge are chosen here as merely the most articulate proponents of the theory that connected the spread of tuberculosis with the Chinese family. When many other medical experts also devoted themselves to popularizing this danger from the family, even laypeople started witnessing this tragic phenomenon taking place within their households. In an article published in the official journal of NATAC, an eighteen-year-old patient bitterly reflected on how his whole extended family, including his uncles, aunts, parents, grandparents, and cousins, fell victim to tuberculosis because his grandmother had contracted the disease from his grandfather. According to this young man’s observations, his grandmother got infected because (1) she had eaten her husband’s leftover dishes, (2) they had slept in the same bed, (3) the grandfather had failed to use a spittoon, and (4) the family had kept the bedroom window closed all year round to avoid catching cold.⁷⁶ In these graphic descriptions, the author witnessed with his eyes the deadly threat his family members posed.

Rather than criticizing the unhygienic behavioral habits of the ignorant elderly, though, many articles tried to motivate them to adopt more hygienic habits for the love of their offspring. In an article titled “Advice to the Coughing Elderly,” Dr. Song Guobing (1893–1956), a pioneer in medical ethics and the president of the Shanghai Association of Medicine, described a tragic story in which an elderly TB patient became the lonely survivor of his whole family as he transmitted the disease to every family member by way of “eating with the same utensils and living in the same room.” In Song’s scenario, ignorance of hygiene had actually turned the already heartbroken old man into a sinner against his own parents and ancestors because, as the Chinese philosopher Mencius (372–289 BCE) famously said, “of the three sins of filial piety, the greatest is to have no offspring.” Sympathetic to these elderly who unintentionally committed the cardinal sin of filial piety, Song felt obligated to give advice to those

75. Even within the journal published by the Anti-Tuberculosis Association, there were many references to the name of *xijiabing*. To save space, I give only the volume and page numbers here: 1945, 1 (9), p. 491; 1946, 2 (2), p. 22; 2 (4), p. 49.

76. Lu Eryu, “Yige Feijiehe Huanzhe de Husheng” (An Outcry from a TB Patient), *Fan-giao Yuekan* (Anti-Tuberculosis Monthly), 1936, 2 (5): 51–53, esp. p. 52.

who “did not know how to isolate themselves from the rest of the family.”⁷⁷ In this provocative scenario, the family presented both the greatest threat to the individual’s health and the most treasured value in life. Surprisingly, this genre of propaganda cut through the change of political regimes and actually continued into the Communist era when the government promoted the politically correct idea that tuberculosis was a social disease caused by capitalism. In an antituberculosis flyer published in 1952, the main text reads: “if you love your kids, don’t endanger them.” As the fine print explains, “Tuberculosis is most easily transmitted within the family,” and “if you suffer from tuberculosis, by no means should you get too intimate with your children.”⁷⁸ Despite the radical difference in conceiving the root cause of the tuberculosis problem in China, during both the Nationalist and Communist regimes, the family was accused of being the major source of danger to its innocent, especially young, members.

It is important to emphasize that health advocates did not stop at constructing theories and popularizing new knowledge; they also implemented hygienic measures to help people protect themselves from the perceived danger of the family. According to documents of NATAc, the tasks of public health nurses during family visits included making sure that family members knew how to avoid TB contagion among themselves, that is, how to manage phlegm and saliva, keep the room properly ventilated, arrange the beds, and abstain from communal eating (*gongshizhi*) by adopting *fenshizhi*, individualized styles of eating.⁷⁹ NATAc helped to make the Chinese style of dining, along with other unhygienic habits, the center of attention in the efforts to contain the spread of tuberculosis.

To be sure, some members of NATAc were fully aware that according to the most up-to-date knowledge, tuberculosis was a social disease and should be resolved through socioeconomic reform. For example, one author pointed out that in the report on tuberculosis published by the League of Nations’ Health Organization in 1931, “almost every page mentioned that tuberculosis was a social disease.”⁸⁰ Nevertheless, this article was remarkably brief, consisting of only one page, and even the author did

77. Song Guobin, “Gao Kesou Laoren” (Advice to the Coughing Elderly), *Fanglao Zazhi* (Anti-Tuberculosis Magazine), 1935, 1 (7): 366.

78. *Zhongguo Fanglao Zazhi* (Anti-Tuberculosis Magazine of China), 1952, 6: 12.

79. Liu Deqi, “Benhui Zhenliaosuo Zhi Rengwu” (The Mission of the Clinics of Our Association), in *Zhongguo Fanglao Xiehui Disanjie Zhengmu Dahui Tekan* (A Special Issue for the Third Recruitment Campaign of the Chinese Anti-Tuberculosis Association) (Shanghai: Zhongguo Fanglao Xiehui, 1936), pp. 11–12.

80. Jiang Qing, “Guoji Miejiehejun Yundong De Fazhan” (The Development of the International Anti-Tuberculosis Movement), *Fanglao Zazhi* (Anti-Tuberculosis Magazine), 1935, 1 (10): 547.

not urge any local effort to join the international trend. Another article dealt directly with the connection between poverty and tuberculosis and hence was titled “Poverty and Diseases of the Chinese People.” Surprisingly, though, the author emphasized that diseases, especially tuberculosis, caused the spread of poverty but never mentioned the reverse causation, namely that disease was the result of poverty.⁸¹ Within NATAc, the most salient exception was Ding Huikang (1904–79), who had received a medical degree from Germany and with his father, the great medical translator Ding Fubao (1874–1952), established two tuberculosis sanitaria in Shanghai in 1928 and 1934, respectively. In addition to introducing the most advanced antituberculosis measures adopted in western Europe, Ding published an article with the title “Preventing the Spread of Tuberculosis by Providing Universal Health Insurance.” Not accidentally, it was also a one-page article, which explicitly admitted that the proposed method was an “ultimate” solution for the future. Given the well-known fact that the national economy was on the verge of bankruptcy, the very thought of a social disease would have paralyzed any effort to alleviate its damage.

Instead of being a social disease, many health advocates in the 1930s, including many members of NATAc, preferred to see tuberculosis in China as a disease of the family, more precisely, a disease of the traditional Chinese family. What these writers proposed was not a general theory of family disease but rather a specific explanation to account for the extraordinary prevalence of tuberculosis in China in connection with the specific, extraordinary features of the traditional Chinese family. Ironically, in 1930s China, tuberculosis was understood neither as a problem caused by modern industrialization and urbanization nor as a disease that could be solved by intensive state intervention.⁸² On the contrary, even health officials perceived tuberculosis as a problem of the individual’s unhygienic

81. Bo Ping, “Zhongguoren De Pin Yu Bing” (“Poverty” and “Illness” of the Chinese People), *Fanglao Zazhi* (Anti-Tuberculosis Magazine), 1936, 2 (4): 47–50.

82. It is useful to compare the situation in China to that in Japan during the 1920s and 1930s. According to William Johnston, Japanese physicians and public health bureaucrats started framing tuberculosis as a socioeconomic problem in the 1920s, using it to argue for broad social and economic reforms. They highlighted living and working conditions, occupation, and income as the disease’s principal causes. However, the Japanese state steadfastly refused to deal with the disease until the escalation of the conflict in northern China during the early 1930s, when many Japanese conscripts contracted tuberculosis. Johnston concluded that as the war redefined the state’s medical priorities, “the central government took formal and direct control of attempts to curb tuberculosis with measures such as extensive surveillance of factory conditions, BCG vaccination campaigns, and social improvements.” See William Johnston, *The Modern Epidemic: A History of Tuberculosis in Japan* (Cambridge, Mass.: Harvard University Press, 1995), p. 252.

habits cultivated within the traditional Chinese family.⁸³ As a metaphor, tuberculosis in China did not symbolize the pathological cost of modernity but rather the weight of traditional habits and family structures, which prevented China from entering the modern individualistic society.

Technologies of the Individual

If TB came to symbolize a “crucial difference” between China and the West, then the perceived divergence lay at the very foundation of two kinds of societies: family versus individual. Three material objects—the family kang, the individual cup, and the hygienic table—represent three possible options for solving the conflicting demands of modern individualism and the traditional family.

The first item to be discussed here is the traditional fire-heated sleeping platform, or kang, on which family members conducted many activities and slept together. Structurally connected to the hearth on one side and a chimney on the other, the kang is part of a cost-effective heating axis that circulates heat for both heating and cooking within the house.⁸⁴ Instead of praising its efficiency and flexibility, many health advocates blamed the kang as an aspect of the dangerous and unhealthy confinement imposed by the Chinese family upon its innocent members. On this bed, shared nightly by parents, children, and grandchildren, the individual was smothered in her sleep.

Just like the advice of “opening the window,” the association between housing and tuberculosis was imported to China from the West. As historian David Barnes has insightfully pointed out, when France launched its “war on tuberculosis” in the late nineteenth century, “the preoccupation of miasmatic theory and Haussmann-style public works with *external* causes of disease moved indoors.”⁸⁵ This indoor-looking gaze took as its key target the workers’ slum housing, especially its four interconnected

83. It is worth pointing out that the two conceptions of tuberculosis—as a social disease and as a family disease—did not necessarily constitute two mutually exclusive choices. For example, while Grant estimated that 75 percent of tuberculosis prevention should focus on improving personal hygiene, he nevertheless emphasized that “the 75 percent controllability ascribed to Personal Hygiene may be dependent largely upon a minimal economic standard.” In this sense, tuberculosis was ultimately a social disease since its alleviation demanded some improvement in people’s socioeconomic conditions. John B. Grant, “State Medicine” (n. 10), pp. 65–80, esp. p. 72.

84. Mareile Flitsch, “Knowledge, Embodiment, Skill and Risk: Anthropological Perspective on Women’s Everyday Technologies in Rural Northern China,” *East Asian Science, Technology and Society: An International Journal*, 2008, 2 (2): 265–88.

85. Barnes, *Making of a Social Disease* (n. 48), p. 114, emphasis in the original.

characteristics: lack of sunlight, poor ventilation, filth, and overcrowding. At first glance, the housing of China's poor appeared to have much in common with French slum housing.⁸⁶

In the French case, however, it was understood that the working class was forced to live in such a pathogenic environment because of poverty. In this sense, tuberculosis was a "social disease" in need of a social solution. By contrast, since the notion of tuberculosis as a social disease went unheard in China, Chinese advocates of public health continued to frame tuberculosis as a family disease by no means exclusively associated with the poor people or the working class. In fact, Chinese writers often pointed out, sometimes with statistical evidence (as in the case of Lai), that the wealthy people suffered more from tuberculosis than their poor fellow countrymen, because their style of family life was closer to that of the pathogenic traditional family. Moreover, while the Chinese discussion of tuberculosis also touched upon housing design, especially in those aspects concerned with sunlight and ventilation,⁸⁷ its main focus was not the material *environment* that bred the bacillus but rather the domestic utensils and furniture that shaped the habitual *social exchanges* among family members. If the hidden agenda of the French TB–housing connection was concerned with the link between TB and worker's slums, the Chinese agenda was about linking TB with the Chinese family, especially the wealthy and traditional family. In short, the target was not the poor working class but the traditional Chinese family; not modernity, but tradition.

Twentieth-century modernizers spoke incessantly about the pathology of the patriarchal Chinese family. Fu Sinian (1896–1950), a leader of the New Culture Movement (1915–23) and famous educator and public intellectual, asserted that "the family was the source of thousands of evils." Among those countless evils, Fu emphasized, the most horrible one was that from the point in time when a baby arrives in the world, "the family teaches him how to abandon the self to follow others, to be an obedient

86. According to Henry Harold Scott, a Hong Kong government bacteriologist, "The problems of tuberculosis in Hong Kong are really social problems. . . . The main cause of the prevalence of the scourge is the predisposing one of overcrowding of the poor and the fact that the rooms inhabited by them are dark and the sunlight rarely enters them. They are further darkened by gratings and shutters." See Henry Harold Scott, "The Prevalence and Character of Tuberculosis in Hongkong," *Ann. Trop. Med. & Parasit.*, 1921, 15: 213–26, esp. pp. 221–22.

87. Citing a report by W. W. Pearse, Hong Kong's Medical Officer of Health, Scott presented the plan of a typical Chinese house, explaining that "the floors of these houses are supported by China fir poles, [which] has limited the width of storeys to fifteen feet" while they often extended fifty or sixty feet from front to back door. Such a layout virtually guaranteed that domestic interiors were dark and rank. See *ibid.*, p. 220.

son of his parents, but it never teaches the child to be himself. In short, it strives for a complete destruction of one's individuality (*gexin*).⁸⁸ Family, more specifically the traditional Chinese family, constituted the source of all evils because, according to Fu, it had the biggest role in destroying individuality.

Using the term "individuality" about ten times in his short article, all in quotation marks, Fu was keenly aware that he was referring to a concept unfamiliar to his readers. As the modern Chinese terms for "individual" (*geren*) and "individualism" (*geren zhuyi*) were both new terms, coined to translate Western concepts into Chinese,⁸⁹ it is highly possible that *gexin* was similarly created to render the concept of "individuality" in Chinese translation.⁹⁰ Because of this new desire to realize *gexin*, when some famous intellectuals broke the arranged marriages made by their parents, this otherwise selfish decision was celebrated as a radical, even heroic, effort to protect "the freedom of love" and to regain control over their own destiny. To rescue the countless young people who lost their individuality and became "buried alive" in the joint family, New Culture radicals "touted the Western conjugal family (*xiaojiating*) as the antidote to China's ills."⁹¹ Clearly, between the antituberculosis movement and the New Culture Movement, there was a shared concern to protect the youngsters from the threat and confinement of the traditional family. In light of this shared concern, the family *kang* was more dangerous than merely as a channel for spreading disease. It materialized the ultimate evil of Chinese culture, that is, an utter lack of personal space, and thus, the suffocation of individuality.

88. Fu Sinian, "Wan E Zhi Yuan" (The Sources of Thousands of Evils), in *Fu Mengzhen Xiansheng Ji* (Collected Works of Mr. Fu Mengzhen), ed. Anon. (1919; reprint, Taipei: Taiwan Daxue, 1952), pp. 1–4, esp. p. 2. I would like to thank my colleague Sung-qiao Shen for calling my attention to this revealing article.

89. I would like to add that the Chinese term for individual (*geren*) was translated from the Japanese term *kojin* which was a translation for "individual." See Lydia H. Liu, *Translating Practice: Literature, National Culture, and Translated Modernity—China, 1900–1937* (Stanford, Calif.: Stanford University Press, 1995), p. 321.

90. The term *gexin* can have at least two meanings in modern Chinese language—personal characteristics and individuality—both of which can be found in Chinese dictionaries published before the Republican period. Fu Sinian clearly used *gexin* to denote individuality, although this usage is no longer popular and can not be found in contemporary dictionaries.

91. Susan L. Glosser, "'The Truth I Have Learned': Nationalism, Family Reform, and Male Identity in China's New Culture Movement, 1915–1923," in *Chinese Femininities/Chinese Masculinities*, ed. Susan Brownell and Jeffery N. Wasserstrom (Berkeley: University of California Press, 2002), pp. 120–44, quotation on p. 121. I would like to thank Bridie Andrews for bringing this article to my attention.

It is no accident that hygienic rules echoed social values such as individualism. Medical sociologist David Armstrong has uncovered a two-hundred-year-old symbiotic development between the construction of social identity and the four regimes of public health, including systems of quarantine, sanitary science in the nineteenth century, personal hygiene in the early twentieth century, and new public health after the 1970s.⁹² In addition to controlling diseases, hygienic rules provided cultural categories, shaped social life, substantiated modes of power, and contributed to identity formation. For example, the quarantine system reinforced the boundaries between localities, allowing the state to exercise sovereign power while consolidating a collective identity. The succeeding sanitary science shifted attention from the movement between localities to the passage of substances—food, air, water, sweat, urine, and feces—between the outside and inside of the body.

As a result, surveillance became focused on the interface between the body and noncorporeal external space, such as the skin, mouth, nostrils, and sphincter—those mediating zones between inside and outside. (As control over these passageways became the mark of a modern autonomous individual, Sun Yatsen used precious time in his political lectures to counsel his fellow countrymen against spitting and burping in public.) In the age of personal hygiene in the early twentieth century, attention shifted again to the dangerous exchange of substances that spread tuberculosis and venereal disease between bodies. Furthermore, as the new gospel of personal hygiene turned a spotlight on the countless social contacts between bodies, people began to develop a new corporeal sensibility and sensitivity about the distance, contact, and exchange between bodies. In short, by dwelling on the boundaries between human bodies, interpersonal hygiene helped create the modern “individual.”

In order to popularize personal hygiene, the PUMC health station started teaching schoolchildren hygienic habits with what they called “individual cups” (Figure 1). A few years later, when a new generation of hygiene textbooks for grade school was published in 1935, many included a lesson, “I use my own cup,” accompanied by a drawing that looked very much like a printed version of the photograph of the individual cup. The routine and innocent use of hygienic equipment like the individual cup habitualized school children to become a new kind of individual, one who felt unease about sharing a cup, a comb, a towel, or a toothbrush with anyone, including family members and loved ones. In conjunction,

92. David Armstrong, “Public Health Space and the Fabrication of Identity,” *Sociology*, 1993, 27: 393–410.



Figure 1. Illustration of the individual cup system used in the school in Beijing's First Health Demonstration Station in the 1920s. Reproduced with permission of the Rockefeller Archive Center.

abandoning the kang and embracing the individual cup would help liberate children from the pathological intimacy of the traditional family, and reconstitute them as “individuals” who kept a physical distance to each other. In the name of health and hygiene, a silent conversion took place by way of the body, or more precisely, by way of adopting hygienic equipment and embodying related hygienic habits.

When John Grant named education as the third-most important public health objective—following the “prevention of gastro-intestinal diseases and vaccination against smallpox,” what he had in mind was precisely this inculcation of bodily habits. He knew all too well that individuals often failed to put into practice the knowledge they possess. This is especially true in regard to disease prevention. As Grant reasoned, “The greater part of man’s actions are habitual and it is only through practicing health habits over a sufficiently long period for them to become automatic that they will be practiced. Ordinarily, this is best secured early in life, in the home or school.”⁹³ Instead of trying to fill the minds of Chinese youth with

93. Grant, “A Proposal for a Department of Hygiene” (n. 11), pp. 11–12.

individualistic values or modern knowledge on hygiene, Grant's strategy focused on automatizing their bodies with a set of formulaic health habits reinforced by hygienic utensils. Even those who had yet to "awaken" to their own unique individualities would physically embody the new ethic of individualism, as long as they insisted on using their own cups and towels and refused to lend them to others.

Most revealing, the individual cup did not stand by itself. The cupboard turned the newly individualized bodies into a grid system that could easily be monitored and managed. As soon as one cast off the shackles of the traditional family and regained one's freedom as an autonomous individual, one became an "automatic" and standardized body, organized, monitored, numbered, and disciplined side-by-side with other bodies. Paradoxically, what accompanied the "awakened" mind, so beautifully described by John Fitzgerald in his groundbreaking work, was the automatized and standardized body already trapped in the cell of a centralized, mechanical grid.⁹⁴ In sharp contrast to the modern "individual" (self) created along with the rise of modern Chinese fiction, who, just like the Russian "superfluous man," "turned out to be a misfit in the hostile environment of a rapidly disintegrating society,"⁹⁵ the individual (body) created in connection with personal hygiene was preconfigured to be an well-integrated member of emerging modern institutions like the schools, factories, army, and the nation. As Michel Foucault put it, "individualizing" and "totalizing" went hand in hand in the subject-building process of modern biopolitics.⁹⁶

Does one sleep with the window closed during the night? Or does one throw all windows open and prepare a separate bed for every child?⁹⁷ Just like the use and disuse of the family kang and the individual cup, these

94. Fitzgerald, *Awakening China* (n. 47). For a penetrating analysis of the relationship between the Enlightenment, the automatized body, and governmentality, see Simon Schaffer, "Enlightened Automata," in *The Sciences in Enlightened Europe*, ed. William Clark, Jan Golinski, and Simon Schaffer (Chicago: University of Chicago Press, 1999), pp. 126–66.

95. Liu, "The Discourse of Individualism," in her book *Translingual Practice* (n. 89), pp. 77–102, quotation on p. 95.

96. Michel Foucault, "The Political Technology of Individuals," in *Essential Works of Foucault, 1954–1984, vol. 3, Power*, ed. James Faubion (New York: New Press, 2000), pp. 402–17; Foucault, "Technologies of the Self," in *Essential Works of Foucault, 1954–1984, vol. 2, Ethics*, ed. Paul Rainbow (New York: New Press, 1997), pp. 223–51.

97. The intimate physical relationship discussed here assumes global proportions when one considers that even today 90 percent of infants around the globe sleep with an adult. A proper understanding of the making of the modern individual must involve an investigation of the constitutive role of so-called premodern practice and domestic habits. See Meredith F. Small, *Our Babies, Ourselves: How Biology and Culture Shape the Way We Parent* (New York: Anchor Books, 1998), p. xx.

bodily habits and material artifacts reveal the degrees to which Chinese people corporeally embodied the individualistic values of modernity as they learned to cope with tuberculosis. We can call these hygienic habits and instruments the political technology of the modern individual. In light of this understanding, Wu Liande's hygienic table should not be seen only as an innovative design that satisfied cultural demands while putting modern hygiene into practice. Although the new gospel of personal hygiene did make some Chinese uneasy about sharing other people's bodily fluids, it did not convert them to filling individual plates at the stove. Without threatening the social relations linked to the shared dish, the hygienic table helped prevent tuberculosis while championing a different kind of "individual." As demonstrated by the selective acceptance, reform, and innovation of hygienic equipment, the multiple means of imagining and coping with tuberculosis reveal the various ways in which people related to their own family, the community, the state, and themselves.



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