Bridie Andrews. *The Making of Modern Chinese Medicine, 1850–1960*. Vancouver, British Columbia, University of British Columbia Press, 2014. xvi, 294 pp., illus. \$32.95 (paper).

Sean Hsiang-lin Lei. *Neither Donkey nor Horse: Medicine in the Struggle over China's Modernity*. Chicago, Illinois, University of Chicago Press, 2014. x, 382 pp., illus. \$35.00 (cloth).

KEYWORDS: scientism, missionary medicine, Japan, imperialism, nationalism, acupuncture

It may seem strange to a contemporary observer in the West that “complementary and alternative medicine” (CAM) has not lost its appeal, but has in fact acquired a growing measure of popularity in developed countries in the twenty-first century. The root of this impression exemplifies what Charles Rosenberg identifies in *Our Present Complaint: American Medicine, Then and Now* (Johns Hopkins University Press, 2007) as one of the two possible outcomes in the encounter between Western biomedicine and alternative healing practices. The slighting of Chinese medicine, to single out one genealogy of CAM, supports a triumphalist narrative of scientific biomedicine according to which mainstream, learned medicine always has the capacity to integrate those seemingly valuable elements of the alternative into its normative and regulatory foundations. Over time, however, Rosenberg observes a different trend displacing the total disdain of CAM. The hegemony of scientific medicine rests on its indifferent awareness of and willing coexistence with “other” health-care paradigms, acknowledging the abiding necessity of alterity presence rather than genuine “epistemological egalitarianism or relativist pluralism” (Rosenberg, 126).

The two books reviewed here turn Rosenberg’s insight on its head by steering our attention to a different side of the world where, before the rise of industrial globalism, “Chinese medicine” had been the dominant tradition (of course, which medical tradition appears “dominant” depends on where and how one looks). In fact, as both authors point out, this statement is a misnomer, because before the twentieth century, there was a plurality of medical and healing conventions in China, not all of which we would identify as what is called (traditional) Chinese medicine today. A notable example contributing to the changing definition of medicine in China is the maneuvering of those reform-minded physicians who intentionally construed “superstitious” religious practices as the antithesis of a scientific and modern version of Chinese medicine in the early twentieth century. As such, the key question that Sean Hsiang-lin Lei sets out to tackle in his study is this: “How was Chinese medicine transformed from the antithesis of modernity to one of the most potent symbols for China’s exploration of its own modernity?” (3) Similarly, Bridie Andrews asks, in what ways have “the values associated with modernity (including science, democracy, linear time, and the commitment to progress in human history) [come] to be equally important in Chinese medicine?” (12) Both books therefore share the ambition to

throw light on the mutual imbrication of modernity, scientificity, and nationalism in China's medical development.

For a long time, historians of Chinese medicine have been divided into two groups, distinguished by whether one's focus is on the period before or after the rise of Western biomedicine. While concluding immediately prior to the onset of modern challenges serves the strategic purpose of certain analyses, we also know that what we call "traditional Chinese medicine" is a relatively recent invention that found its most definitive articulation in the Maoist period. This crucial pillar of contemporary CAM emerged in a Cold War context that witnessed the state-wide promotion of an epistemic syncretism, which attempted to absorb elements of Western biomedicine into the foundations of a kind of medicine that is at once nationalistic and Chinese. If this narrative appears strikingly mimetic of Rosenberg's depiction of medical hegemony in the West, Andrews's and Lei's studies provide a sober and timely reminder about the alterative agency of Western biomedicine in the modern transformations of Chinese medicine, representing not its enemy but its midwife.

By putting the spotlight on the Republican period (1912–49), the two books present a number of astute insights that promise to remain authoritative in the field for years to come. Both authors share the view that Western biomedicine had gained an uneven footing in China whereby its influence on different domains of health care varied significantly since the mid-nineteenth century. The expansion of public health, for example, exemplifies where Western biomedicine penetrated most deeply. Wu Liande's success in containing the Manchurian Plague in 1912 epitomized the beginning of a series of targeted efforts to merge medical reform with state interest. These efforts not only culminated in the establishment of the North Manchurian Plague Prevention Service, China's first attempt at a public health service, but they also brought into sharp focus some of the lingering difficulties that physicians of traditional medicine faced, especially their weakness in dealing with the contagious nature of certain infectious diseases. When Yu Yan proposed to abolish Chinese medicine altogether in 1929, its practitioners came together and learned from physicians of biomedicine to connect their professional development to the interest of the state by rebranding their work as "national medicine" (*guoyi*) in tune with the then prevalent ethos of anti-imperialism. Faced with mounting pressure, the Nationalist government quickly forsook Yu's proposal, and physicians of Chinese medicine grabbed onto the new language of science to legitimate the efficacy of some of their longstanding pharmacopeia. This move, therefore, highlights an important area of their expertise least threatened by the intrusive nature of Western biomedicine. In short, not only is the conventional wisdom about the absolute triumph of Western medicine over Chinese medicine untenable, the confrontation between the two styles of medicine pushed advocates of modern biomedicine in China to re-strategize and learn from it as much as it stimulated Chinese-style physicians to take action to bring about an unprecedented collectivism among themselves.

In showing that the introduction of modern biomedicine helped strengthen rather than curtail the development of Chinese medicine, Andrews and Lei stress the

incoherent nature of Western medicine itself. In the nineteenth century, argues Andrews, “missionary medicine turned out to be not so much a marker of cultural difference as a tool for reducing the perception of alterity” (55). Striving to persuade the Chinese public, Western doctors downplayed the spectrum of problems confronting their work by appropriating and accommodating Chinese medicine in order to generate a sense of commensurability. This had the unintended effect of reinforcing the status of Chinese medicine, especially the value of Chinese pharmacy. By the early twentieth century, the western medical community in China was still far from unified. Although the attempted merging of the China Medical Association (for missionaries, secular doctors, and Chinese graduates of foreign or approved Far Eastern medical schools), the National Medical Association (for Chinese graduates of British- and American-run medical schools), and the Chinese Medical and Pharmaceutical Association (for graduates of Japanese-run medical schools) into a single Chinese Medical Association in 1932 gave the Western medical profession in China a seemingly unifying voice, these mergers were in many ways a reaction to the increasing solidarity of their rivalry. In fact, as Lei demonstrates, when the Nationalist government committed itself to forming a Ministry of Health in 1928, one of its key objectives was to strike a delicate balance between the Japanese-German faction and the Anglo-American faction. However, a direct consequence of the Rockefeller Foundation’s intervention, among other variables, was that “over the course of the Republican period, the Anglo-American faction gradually acquired a dominant position in both medical administration and the medical profession as a whole” (129).

Despite these similarities, the two books have different strengths. Andrews’s study is especially illuminating in explaining Japan’s influence on medical reforms in China. As a result of Japanese imperialism in China, many Chinese physicians have been reluctant to acknowledge the Japanese impact on their profession. This often leads to the singular perception of Japan’s significance in terms of mediating the transmission of Western biomedicine to modern East Asia, especially since the direction of knowledge acquisition reversed between Japan and China after the First Sino-Japanese War (1894–95). However, Andrews shows that by the time Chinese students arrived in Japan, they encountered a mixed situation in which the state supported the development of Western medicine and a concurrent movement for preserving *kanpō* (Sino-Japanese medicine) flourished as an attempt to maintain cultural identity by way of “scientizing” traditional medicine. A mirror image developed in Republican China: the Nanjing government convened its first Health Commission in 1929, which is often seen as the opening salvo of a series of attacks on Chinese medicine. In response, Chinese-style doctors, like their *kanpō* predecessors, mobilized themselves into forming a coherent National Medicine Movement, launched initiatives to defend their status, and consolidated a professional identity in ways that correlated with anti-imperialist nationalism. Andrews shows that the application of scientific methods to uncover the active principles in traditional pharmacopeia, a major innovation in Chinese medicine in the 1920s and 1930s, can be traced back

historically to the pharmacological research into Chinese drugs in the *kanpō* revival movement.

Lei's study, on the other hand, provides the best account to date of the role of the state in transforming medicine in China. In his words, "the historic confrontation did not take place directly between the two styles of medicine but between Chinese medicine and the modernizing Chinese state" (5). Lei depicts the year 1929 as a pivotal turning point for both Western medicine and Chinese medicine as their practitioners redefined the nature of their competition in terms of their alliance with the state, as opposed to fighting for patients, for instance. The same year that witnessed the government's intention to abolish Chinese medicine saw the rise of the National Medicine Movement. Whereas the evidence for the state's alliance with Western medicine runs across the North Manchurian Plague Prevention Service and the Ministry of Health, Chinese medicine's alliance with the state culminated in the establishment of the Institute of National Medicine. Lei refines his argument, however, by showing that this is not merely a matter of political struggle, but one with epistemological consequences. Specifically, he calls the creation of modern Chinese medicine a process of *speciation*, out of which a new "mongrel" form of medicine suddenly emerged (making Chinese medicine "neither donkey nor horse"). "The important point," writes Lei, "is that the desirability, the derogatory connotation, and the dangerous potential of mongrel medicine were all inseparable from . . . the project of Scientizing Chinese Medicine" (163). The spirit of scientism first found its most explicit pronouncement during the May Fourth Era, but it became, according to Lei, a key motto embraced by Chinese physicians in response to Yu's proposal a decade later. Although notable efforts to integrate the two styles of medicine existed before 1929 (Tang Zonghai's work springs to mind), this moment marked the first time when Chinese-style physicians were forced to cope collectively with the concept of science. Having succeeded in acquiring the necessary state capital for establishing the Institute of National Medicine, they began to marginalize those peers who refrained from engaging with the project of scientization.

It is impossible to do justice to these two meticulously researched and clearly written monographs in a single review essay, but certain elements do stand out as especially interesting and path-breaking. Andrews's discussion of the advent of scientific acupuncture provides a sorely needed historical explanation for its contemporary survival and popularity. After all, the practice was shunned by elite doctors in China before the twentieth century, so how did it become such an important icon of Chinese medicine today? The answer, according to Andrews, lies in the effort of those medical thinkers who attempted to give acupuncture a modern scientific basis. Here, the work of the physician Cheng Dan'an (1899–1957) is remarkable in that he mapped Western anatomy and physiology—such as the physical structures and functional systems of nerves, blood vessels, and lymph glands—onto the meridian tracts of acupuncture (*jingluo*). For a similar experiment in the scientization of Chinese medicine, Lei's chapter on the birth of the new antimalarial drug *changshan* (dichroa root) reveals the political nature of this discovery. Among other things that made

this an anomalous event, participating researchers violated the basic protocol for conducting scientific research on Chinese drugs, but it was only because of this violation that they were able to show the antimalarial efficacy of *changshan* as efficiently and quickly as they did. This chapter in the history of Chinese medicine therefore not only dispels the longstanding myth that Chinese medicine is ineffective in treating infectious diseases, but it also sheds light on the intertwined nature of experimentation, laboratory science, and actor-network that turned a research design into a political strategy—a story familiar to critical scholars of science but told with a brand-new cast.

Whereas previous studies have tended to shy away from delving directly into the encounter between Chinese-style and Western-style medicine, these two books represent the most innovative and magisterial treatment to date of the transformation of Chinese medicine in the first half of the twentieth century. They show that although Chinese physicians have struggled with medical hegemony in myriad ways, genuine interests in “epistemological egalitarianism or relativist pluralism”—however volatile in becoming the most obvious end product of history—have nonetheless served as a key catalyst in medicine’s global past.

Howard Chiang, Ph.D.

Department of History, University of Warwick,

Coventry CV4 7AL, UK

doi:10.1093/jhmas/jrv054

Advance Access Publication: January 7, 2016

Anne Hardy. *Salmonella Infections, Networks of Knowledge, and Public Health in Britain, 1880–1975*. Oxford, Oxford University Press, 2015. ix, 249 pp., \$99.00 (cloth).

KEYWORDS: epidemiology, bacteriology, food poisoning, germ theory

“A large family . . . with a beautiful name but most unpleasant habits.” Such is a forceful description of the bacterial genus, *Salmonella*, the subject of Anne Hardy’s new monograph. The group was confounded in the late nineteenth century by the nebulous monikers enteric fever, typhoid, and summer diarrhea, yet a century later, microbiologists recognized over two thousand and five hundred specific zoonotic serotypes of *Salmonella*, the most virulent being *Salmonella typhi*, the causative organism of typhoid fever. Hardy’s goal—formidable in chronology and scope—is the weaving of three narratives; the modern history of how *Salmonella* became a public health problem, the laboratory research that unraveled the *Salmonella* family of bacteria, and public health attempts to curb food poisoning *Salmonella* outbreaks.

Following her longstanding interest in Victorian public health, and presaged by a series of signpost journal articles on typhoid fever, food poisoning, and veterinary