

anyone interested in the history of genetics, bioethics the popular representation of illness, and disability, as well as changing forms of identity politics in medicine today.

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**Alexander R. Bay**, *Beriberi in Modern Japan: The Making of a National Disease* (Rochester, NY: University of Rochester Press, 2012), pp. III, x + 230, \$95.00, hardback, ISBN: 978-1-58046-427-7.

In an article published in the journal *Science* on 18 November 1892, Doctor Ashmead of New York wrote

We have a wet trip, the very weather in which beriberi, or *kakke*, flourishes in Japan . . . I have elsewhere affirmed my belief in the operation of carbonic compounds in the production of *kakke* in Japan . . . That Europeans in Japan rarely contract beriberi is partly explained by the fact that they are not exposed to charcoal fumes in their houses (p. 282).<sup>1</sup>

The debate over causes of beriberi or *kakke* in Japanese had puzzled medical doctors for years. Compared with the international acceptance of Umetaro Suzuki's discovery of beriberi aetiology, Kanehiro Takagi's dietary experiment in the late nineteenth century has been commonly seen as the pioneer of Suzuki's discovery in Japan. Therefore, as Suzuki officially identified beriberi as a disease caused by the deficiency of vitamin B1 (thiamine) in the 1910s, the controversy within the Japanese medical circle shifted to who should be credited with discovering it first. To some in Japan, Takagi in fact should be treated as a pioneer sharing the glory with Suzuki. As far as the medical community was concerned, Japanese *kakke* and modern beriberi are undoubtedly the same disease, the only historical problem is who really discovered the aetiology.

While the interests of the medical community were focused on understanding the real cause of beriberi and identifying its discoverer, historians have addressed the issue from a different angle. Unlike the previous focus on aetiology, contemporary historians of disease pay much more attention to distinguishing the fundamental differences between beriberi in modern western medicine and *kakke* of Sino–Japanese traditional medicine (*kampō*). The modern definition to Japanese *kakke* through western medicine does not satisfy all of the descriptions of *kakke* symptoms in the past. *Shoshin kakke* was a common illness throughout the Tokugawa period (1603–1867), the cause of which remains debatable nowadays. Historians such as Liao Yuqun therefore suggest that traditional *kakke* cannot and should not be translated as beriberi, because they are actually two distinct sicknesses.<sup>2</sup> For Liao, the translation of *kakke* as beriberi is too simplistic.

Alexander R. Bay follows a different approach to previous medical professionals and historians alike. Instead, he treats beriberi as a symbol revealing 'the connection between medicine and power in modern Japan'. Without engaging with the Foucauldian definition

<sup>1</sup> A. Ashmead, 'Contribution to the Etiology of Beriberi', *Science*, 20, 511 (1892), 281–2.

<sup>2</sup> L. Yuqun, 'Records and Interpretations: Reinvestigation on the History of Kakke in Japan', *New History*, 12, 4 (2001), 121–54 [in Chinese].

of biopower, the author definitively proclaims that ‘this book is also about power and medicine’. In doing so, Bay’s research reveals that ‘Western-trained doctors, grappling with a disease of unknown origin, constructed a unique Japanese form of science in the prewar years’ while the disease beriberi became ‘a disease of war and imperial expansion’ in the Meiji period. Following a chronological framework, excluding the introduction and conclusion, the book includes six chapters: 1. The Geography of Affliction: Beriberi in Edo and Tokyo; 2. Putting the Laboratory at the Center; 3. Beriberi: Disease of Imperial Culture; 4. Empire and the Making of a National Disease; 5. The science of Vitamins and the Construction of Ignorance; and 6. The Rice Germ Debate: Total Mobilization and the Science of Vitamins in the 1930s.

Despite a focus on the search for beriberi aetiology in the first half of book, Bay cleverly avoids the cliché of identifying who should be credited in beriberi aetiology. Instead, he turns to the symbolic status of bacteriology in Meiji Japan’s medical modernisation. Historians of modern Japan usually assume that the adoption and adaptation of western science was one of the hallmarks of the Meiji ‘Civilization and Enlightenment’ program. The so-called beriberi debate (*kakke ronsō*) in the Meiji and early Shōwa periods led to groups of Japanese medical professionals engaging in an international competition searching for the cause and cure of this disease. The competition had a major impact not only on newly emergent western medicine in Japan but on Japan as a rising Empire. In this atmosphere of the building of the state and Empire, beriberi in the eyes of Japanese officials could thus be seen as ‘an enemy greater than Russia’. In the last part of book, the author carefully portrays the functions of several governmental research institutions including these in army and navy to reveal the hidden agenda of ‘internal colonization’ in prewar Japan. As the author points out, ‘in the 1930s, imperial expansion became a tool used to unify the people’. As imperial enterprises eager to define beriberi aetiology, the authorities thereby formed part of an emerging direction in beriberi research that reconceptualised Japan’s modernisation and the Empire.

*Beriberi in Modern Japan: The Making of a National Disease* is indeed an inspiring and well-organised monograph. The author has done an excellent job linking the aetiological argument with Japanese state-building in the modern period. While some scholars may object to Bay’s strategy of treating *kakke* and beriberi as the same disease, this problem should not overshadow the central findings of the work. Bay is most successful in crossing the boundary between scientific studies and cultural–political approaches all without touching the nerve of conventional viewpoints of scientism. While readers will surely enjoy the innovation of this book, it also may raise questions about the traditional conflicts between the Japanese army and navy in medicine as well as the rivalry between Shibasaburō Kitasato’s pupils and the doctors from the Medical School of Tokyo’s Imperial University. This work will not only bring answers and explanations to readers, but it also leaves a number of questions to be further explored.

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