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EAST ASIAN HISTORY AND CULTURE REVIEW

The Japanese Medical Empire and Its Iterations

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Hoi-eun Kim. *Doctors of Empire: Medical and Cultural Encounters between Imperial Germany and Meiji Japan*. University of Toronto Press, 2014. 272 pp. \$55 (cloth/e-book).

Transforming the East Asian STM Field

As recently as the early 1980s, the literature in English concerning the broader transformation of East Asia as a space for emerging developments in science, technology, and medicine (STM) was dominated almost exclusively by works on imperial China. This is not surprising, given its considerable historical legacy as the dominant cultural force in the region.¹ It was perfectly acceptable within the field, moreover, to treat neighboring countries within this Sinocentric framework, or at least to regard their cultural and historical indebtedness to China as one of their central features of interest.² If I exaggerate the hegemonic force of China studies in the recent past to make a rhetorical point, I do so to mark the arrival of a great deal of newer scholarship concerning the transformation of the East Asian region since the nineteenth century, and arguably since at least the seventeenth century, particularly within the field of medicine—whether Western, “traditional” (a problematic term, admittedly), or even, in more complex cases, those practices embedded within a dense nexus of religious worship and healing.

The work under review here, Hoi-eun Kim’s *Doctors of Empire*, provides a new and welcome addition to the growing literature on Meiji Japan, following in the tradition of a substantial body of previous work on scientific and technological accomplishments, including studies by James Bartholomew (1993), Tessa Morris-Suzuki (1994), and Morris Low (2005), among many others.³ If these earlier works tended to concern themselves primarily with the domestic story of the transition from Tokugawa to Meiji, and how the adoption of an eclectic

range of practices contributed to a new model of nation building, Kim brings a different approach to bear on the central question of a nascent Japanese medical community undergoing its own radical form of reinvention. Specifically, he looks at the “cultural encounters between Imperial Germany and Meiji Japan” over the course of roughly fifty years spanning the second half of the nineteenth century and reaching to the early twentieth, just prior to the outbreak of the First World War. If scholars have long acknowledged the Meiji fascination with German scientific models of practice, Kim is one of the first to investigate this relationship in full detail, rigorously tracking the estimated twelve hundred Meiji physicians who spent time in Germany for study and research.⁴ Moreover, his model for examining this relationship is one of mutual encounter, or interdependence—one in which Germany receives just as much as it imparts to its visitors in establishing this dynamic relationship.

This point of emphasis proves critical, as Kim is attempting here a distinctive brand of comparative imperial history, with Bismarck’s Germany and Meiji Japan each offering important lessons in terms of the respective paths taken to modernity. In many respects, this is a book more about imperial Germany, or certainly equally divided between Germany and Japan, than a traditional work focused exclusively on the Meiji model. By attempting this brand of transnational history, Kim argues that his Japanese actors represent just as much a contributing and formative part of German history as they are of Japan’s, and he states this explicitly at several points. This is not a minor claim, and when he takes the reader through the seminar rooms, beer halls, rooming houses, and diverse spaces in which his Japanese actors lived, studied, worked, ate, and practiced medicine, he reinforces their centrality to the German project of higher education, as well as, of course, the formative effects that Germany would continue to have on their subsequent development.

Similarly, if Kim’s approach embraces at least these two distinct sites, he spends ample time with his German actors as well, and not just in the domestic context, where they do much of their teaching. He follows the numerous German experts employed by the Meiji state in a variety of capacities, here meaning primarily as university lecturers and consultants on matters of medicine and public health. Like the Japanese students encountering an unfamiliar German context, the German professors and researchers featured here interact with a Japan undergoing rapid change, and Kim wants to capture as closely as possible their fresh reactions and responses to a variety of novel situations. In this sense, Kim’s approach is itself somewhat eclectic—and I

mean this in the most positive sense—as he blends transnational history with medical anthropology at various points, explicitly identifying a group of his German actors as amateur “anthropologists” (chapter 5).⁵ The result is a work far richer in the depth of its claims and research than would otherwise be possible.

In effect, what Kim creates here is a hybrid, combining a close and detailed account of Meiji physicians in Germany with a parallel account of German actors moving in the other direction. Moreover, for this second narrative thread, he explicitly mobilizes the category of “German Orientalism,” seeking to document and understand how the Germans saw and made use of their diverse experiences in Japan. In turn, the Japanese actors received a strong dose of German interest in racial categories and physical anthropology, both of which would influence how they saw themselves, and soon, of course, how they saw and responded to other Asian populations.⁶ This last remark reflects the reality that Japan ultimately began to develop its own set of imperial ambitions. The presence of the Japanese empire, both as an implicit trope hovering in the background for much of the book, and later as an explicit theme near the conclusion, makes this work strong throughout, carrying out its initial ambitions. This is not a teleological move toward empire, but rather, a careful suggestion of the ways in which the German-Japanese experience of medical encounter gradually accumulated over time, tending to highlight certain impulses as emerging possibilities.

Adaptation and Translation: Reframing the Relationship of Medical Encounter between Germany and Japan

Kim frames his ambitious project by opening with an account of a ceremony held at Tokyo Imperial University in April 1907, with the occasion marking the unveiling of two busts intended to memorialize the legacy of two German professors of medicine— Erwin Baelz and Julius Scriba—who had spent considerable time in the Japanese context. With this vignette, Kim proceeds to a brief account of the day, with Dean Aoyama of the School of Medicine offering his observations in German, remarks to the effect that “when it comes to medical science, our nation is a German colony” (3). These remarks are in some sense a tipping of the hat in the direction of Kim’s central argument, but in another respect, the claim put forth here represents only a simple, crude version of what Kim ultimately hopes to achieve. That is, Aoyama’s words clearly reflect at least one version of a dominant understanding of the legacy of German medicine for Meiji

Japan, when German higher education became a common path traveled by numerous Meiji physicians.

However, this broad claim—that Germany wielded considerable influence on Meiji Japan in shaping its medical practice—forms only one strand of Kim’s narrative, and it is the corresponding dynamism of Japan’s role in Germany for which he ultimately hopes to make a case. The relationship, in other words, involves reciprocity, a complex interdependency in which each culture draws from the other in the process of encounter. The historiographical section following this initial frame builds on these themes, as Kim wrestles with the exceptionalism he finds in many typical accounts of medical history, where the biomedical practice appears simply as an object to follow, a finished product or “black box” in transit from one culture to another. Similarly, he spends time carefully laying out his emphasis on a transnational approach, recognizing its uses and limitations, and in particular, reiterating the theme of reciprocity as an underlying, motivating force. This is in contrast to what he sees as an overly static account of networks of expertise characteristic of some transnational histories.

With the theoretical work set in place, Kim proceeds to divide his attention equally between the German and Japanese groups of actors, and this division of labor is reflected in the ensuing six body chapters. With an emphasis on breaking down the unidirectional, transfer style of narrative, it should not be surprising that Kim opens with the Germans, specifically the core group of lecturers brought to Japan to teach the latest medical practice in the second half of the nineteenth century. As with his introduction, Kim provides a brief vignette, one in which we witness the initial reaction of these German lecturers in 1871—a confused response at the background knowledge of the Japanese student cohort—which would be replaced by a sense of familiarity by the early twentieth century. Chapter 2, “Borrowed Hands,” seeks to explain this rapid transformation covering a roughly thirty- to thirty-five-year period, one that saw an almost complete overhaul of pedagogy and practice.

Negotiating Knowledge Practice: The “Modern”⁷

At the early stages, however, the relationship between the German professors and their Japanese students was marked by numerous misunderstandings and cultural gaps, as Kim shows through his account of Leopold Muller and Theodor Hoffmann, two of the first group to approach the issue of pedagogy in the new context starting in 1871. Here, Kim’s intent is seldom

one relying on a progressive narrative of transformation, but rather, one marked by incremental adaptations executed across successive cohorts of lecturers and students. Moreover, the account is characterized by frequent frustration and outright humor, as the various parties sought to understand the situation. Prior to the arrival of the Germans, for example, Japanese students were asked to read aloud from their Western textbooks, operating on a brute translation method that might consist of only a few sentences in a given session, often in a language they had yet to master. In contrast, Muller and Hoffmann, eager to begin their work, offered a set of ambitious four-hour lecture sessions, generally with a translator mediating for the benefit of the audience, accompanied by simplified notes following the lecture. The sheer scale of this contrast illustrates the significant differences in approach.

Although not explicitly interested in the issue of translation as a means of conveying knowledge content, Kim does hint at many of the larger domestic (Japanese) and regional (East Asian) issues hovering in the background, including the prior context of Japanese medical practice preceding the arrival of the Germans. Specifically, when Kim addresses the question of *rangaku*, or “Dutch learning,” he accepts its importance as a contributing factor to Japanese medicine and yet equally seeks to locate the focus of the discussion elsewhere. His justification for this gesture lies in *rangaku*’s yes lack of what he calls “a proper institutional setting and support” (29), presumably in contrast to the German case to follow.⁸ Scholars of *rangaku/ranpō* (Dutch/Western medicine as adopted and practiced by Japanese doctors) certainly might argue with this characterization, or, at least, look for a means to place the “Dutch learning” in greater conversation with the emergence of a newer conception of anatomy. Again, Kim responds by letting his actors tell their own story, with the German professors expressing a sense of unpleasant surprise at the style of anatomical knowledge held by their first batch of students.

It is worth pausing here for a moment, as accounts of East Asian medicine and the turn to “modernity”—with any number of competing definitions, and deferrals, offered for this term—have generated an enormous amount of attention for the region. Certainly, China specialists often seek to discuss biomedicine in tandem with Chinese medicine, and recent works, such as Sean Lei’s *Neither Donkey nor Horse* (2014) and Bridie Andrews’s *The Making of Modern Chinese Medicine, 1850–1960* (2014), explicitly seek to place the two forms of practice in conversation. Works by other China specialists, such as Nicole Barnes (2012), Wayne Soon (2014), and Mary Brazelton (forthcoming) tend to focus more on specific aspects of biomedical practice, but

certainly with an acute awareness of the nuanced politics of the choices made by Republican China during wartime, and subsequently, by the People's Republic of China (PRC).⁹ Moreover, in the case of medical anthropologist Mei Zhan (2009), she takes a material approach, seeking to tease apart the essentialist category of "Chinese medicine," as cherished by many others, by looking closely at practice. For Korea, similarly, there are scholars who want to treat *hanuihak* (Korean medicine, or indigenous forms of Korean medical practice) as central to the project of a Chosŏn Korea in transition from the nineteenth century, and these figures likely include Dongwon Shin (2009) and Soyoung Suh (2008), among others.¹⁰ Still, this should not mean that biomedicine cannot be discussed in itself, as long as it is placed in its appropriate context.

If the conversation about alternative forms of practice is a rich one, it arguably also reflects the continued dominance of China models for the field. To date, there are relatively few accounts, for example, that track *kanpō* (the Chinese-influenced form of Japanese medical practice) past the eighteenth century. In this respect, Kim's book is in the company of other recent works on Japan and the development of its present medical system, including Alexander Bay's *Beriberi in Modern Japan* (2012). Of course, there are also earlier works, such as Ann Jannetta's *The Vaccinators* (2007), that seek to place *kanpō* in dialogue with emerging notions of biomedicine, specifically using smallpox as a window into changing notions of disease, practice, and public health. The point is that a spectrum of medical practices flourished, and indeed continues to flourish, in broader East Asia, and if there is a tendency to regard discussion of Western biomedicine as somehow antithetical or alien to the (Asian) experience due to the circumstances of its arrival, that is unfortunate. For Korea and Japan, Chinese medicine once represented a foreign "other," and was gradually absorbed in a variety of ways. Clearly, for Kim, Western medicine does not pose this kind of problem, and, again, his Japanese doctors in training acquire this new knowledge through a carefully managed relationship of encounter and exchange.

If chapters 1 and 2 place their focus on the Germans, chapters 3 and 4, in turn, foreground the experience of the Japanese in Germany. As already noted, Kim's focus goes beyond that of traditional accounts in the respect that he tells us far more than simply the medical content of what these students learned. Instead, we are presented with a much richer portrait, a cultural history of student life in late nineteenth-century Germany, as experienced by this particular demographic. This approach takes readers into the classroom or lecture hall, certainly, but it also

includes such unexpected and wonderful sites as the boarding hall, where the majority of students lived. In this sense, the author clearly wants to capture the social and cultural milieu of the German university and its extended life, and he labels the process of studying abroad as one of building a “socialized intellect” (54)—that is, the cultivation of medical knowledge within a cultural context.

Building on this, Kim aims to capture the diversity among his Japanese student population, even while offering a group portrait at the general level. The students supported by the Meiji state, for example, were set against their counterparts, so-called private students, as two groups traveling to and competing for resources in Germany. The former group, limited to those who had finished either first or second in their cohort, were characterized as elite, bearing the hopes and ambitions of the Meiji government. In contrast, the private students were often seen as squandering their time and money, occupying spaces that might otherwise have been put to more productive use. With this portrait, Kim undercuts any notion of a heroic narrative for the Japanese experience in Germany, tying it to personal ambitions in many cases. As he points out, moreover, the fetish for everything “German” would become sufficiently valuable that some students would travel to Europe just to spend a few days or weeks in Germany, knowing that this alone might be sufficient to enhance their future prospects.

Challenging the Heroic

If this devotion to the less-celebrated side of the Meiji story seems to divert our attention, this is far from the case, as a core part of Kim’s approach is to capture the diversity of his collective group, even while offering a group portrait. In this respect, his attention to the less ambitious—those who claimed degrees they had not earned or who mobilized a period of travel as study abroad—is revealing of Meiji attitudes and practices. At the same time, German universities expressed concern about the quality of the students arriving for medical study, and they found that a number of the Japanese students held less-than-stellar credentials in their prior context. All of this goes to say that Kim very consciously challenges a “great men” version of the Meiji narrative and wryly concludes that his actors, in general, “were not the cream of the crop of Japanese practitioners of medical science” (56).

Along similar lines, he also gives us a good deal of detail on the sociocultural experiences of these students—that is, their degree of absorption into the German milieu. For example, we

learn of the difficulties of German-language study at the personal level, complementing the sections devoted to the same issue within the classroom. The individual societies established, joined, and participated in by the Japanese students receive a good deal of attention, encompassing both social groupings intended for Japanese to socialize among themselves, as well as those where the intent would be primarily to encounter German society. In many ways, these sections, effectively bridging chapters 3 and 4 (“Bedazzled and Bewildered”), offer the richest detail in the volume, with urban history also playing a major role. Here, Kim portrays the spectacle and distractions of the imperial German city as a social canvas in which the students learned of, and experienced, a world often very different from their own. Clearly, then, this is a cultural and intellectual history in which medical knowledge interacts with, and is shaped by, the space and personal practices that it inhabits.

When Empires Meet: Germans in Japan, Bridging Germany and Japan

In chapter 5, “Japan through the Stethoscope,” Kim turns to the cultural and personal beliefs of his German practitioners, invoking the trope of the “anthropologist” (102) as one of the major motifs. Focusing on the emerging practice of physical anthropology, along with some of the racial and cultural beliefs underpinning this body of thought, Kim explores his German actors as they encounter their new environment. In particular, he references the “strangeness and unfamiliarity” (103) they likely experienced, and in turn, he seeks to understand the categories of analysis they might have used in adjusting to their circumstances. In the long run, he is clearly pointing to the intersection of empires, the ways in which German racial thought may or may not have influenced the subsequent formation of such practices in the Meiji context. His treatment is a carefully nuanced one, however, and it begins with the formation of societies devoted specifically to natural history and ethnology.

The German Society for Natural History and Ethnology in East Asia, or OAG, is the subject of much of the remainder of the chapter, which looks at the activities of German academics in Japan and the differences between this community and a comparable group of German merchants. Leopold Muller and Erwin Baelz stand in as the representative figures here, with Muller depicted as “rather naive yet . . . forceful” (122) in his claims to German superiority, especially based on his lack of language proficiency. On the other hand, Baelz, while seemingly more scientific in his approach and methodology, provides a far more insidious model, offering a

blueprint for racial categorization. Kim hints that this applies not just to the obvious candidates, such as Taiwan and Korea, but also to the German colonies in Africa.¹¹ This form of “racial pigeonholing” (112), the construction of categories, offers a potential tool kit to the more ambitious members of an aspiring empire.

Telos and Legacy (Post-Meiji)

At the same time, the issue of teleology, and how far forward to push the contributing role of German influence, represents a potential problem, one of which Kim is acutely aware. While he wants to provide insight into comparative imperial histories, he is not claiming that the German presence determines, or even really explains, much of Japan’s subsequent activity, especially for the medical field. Instead, Kim takes a careful, suggestive line here, one that carries us through chapters 5 and 6 and well into the closing sections of the work. In chapter 6, specifically, Kim categorizes this nexus of issues under the label “the perils of encounters” (123), a term encompassing a range of developments. As he defines it, the term is meant to explicitly challenge any notion of a direct transfer of knowledge and practice—a “linear, frictionless transition” (126)—between Germany and Japan. For late Meiji Japan, the question is then reframed as one of examining how German medical practice was received and translated by different groups of social actors, sometimes with mixed or unexpected results.

In the short term, Kim uses this idea of groups or social actors to approach the famous case of the beriberi controversy in Japan, already written about in many previous accounts, and here meant simply to be illustrative.¹² The competition centering on the proper diagnosis and treatment of the disease broke down into a set of contrasting factions, with each holding out for a different position. For a Japan possessing expansionist ambitions, and with armed forces and a navy heavily affected by the condition during the Russo-Japanese War (1904–1905), this was no small matter (Kim H. 2013). Moreover, the approaches taken were shaped by the effects of German medical pedagogy, with its emphasis on bacteriology and the isolation and identification of a causative agent, principles associated with the work of the famous bacteriologist Robert Koch. Kim thus uses the debates between Koch and his interlocutor and frequent opponent, Max Pettenkofer, to explore the Japanese context, looking for analogies between the two comparative settings. Just as Koch and Pettenkofer once debated the merits of germ theory, their Japanese students would do very much the same.

In summing up this contentious series of debates, Kim appeals to the legacy of Koch's personal visit in August 1908, during which the teacher famously showed his devoted interest in Japan, posing for any number of photos in local dress and attending functions on behalf of his former students. If the practice of "Japanese management of germs" (147) represents the public face of Koch's legacy, however, Kim seeks to uncover a deeper story, one possessing more nuance. In particular, he describes this ambition as "the brewing tensions between the different camps of the followers of German medicine" (147), one with implications for more than just beriberi. In that case, he suggestively observes that the German influence was "not always beneficial" (148) to its adherents, especially as they started to form camps and to lose sight of the larger goals of public health and disease prevention.

Beyond this, Kim implies a possibly darker path ahead, one invoking the Japanese legacy in mainland China, although this activity lay at least several decades in the future. In more practical terms, he limits himself to a brief discussion of the implications for the expanding empire, linking it to the need to fill new bureaucratic positions in Taiwan, Korea, and eventually China. For Taiwan, he points to the familiar path of Goto Shinpei, here citing the recent work of Shiyung Liu, with Goto taking on his role as a network builder in a colony functioning effectively as an experimental space (Liu 2009).¹³ Korea receives only a brief treatment in the book, although I have had the good fortune to see Dr. Kim present unpublished work on this topic, extending the project of Japanese physical anthropology well into the South Korea of the late 1960s and early 1970s, as prominent Japanese-trained academics held their positions for the next several decades (Kim H. 2015). Certainly, this topic emerged in the first encounters with international medical relief projects in the post-Korean War era, and there remains a great deal of work here to be done for the Korean context.¹⁴

With this last statement in mind, the references to figures such as Sato Susumu, who was highly placed in the imperial medical order during the Sino-Japanese and Russo-Japanese wars, and Shiga Kiyoshi, clearly are intended to outline some of the broad Japanese temporal and developmental assumptions about Korea, with implications for colonial rule and beyond.¹⁵ And China looms in the foreground, although Kim does not push the subject any further, leaving it to the reader to consider the possibilities. Again, his agenda is very much set against any kind of facile teleology, and he argues explicitly against any contention that his actors "slavishly copied" (153) their teachers in Germany. Instead, he offers an account of the careful reception of ideas

and practices, with the selection process not always obvious in its aims, and providing a significant temporal delay in terms of the deployment of categories. In the end, when he provides a brief list of his major points, the emphasis lies with what he calls “messy entanglements” (161) taking place on the move, rather than any set of easy principles passed from one set of actors to another in a static form.

This account clearly represents a very different world from the Sinocentric one with which we started this review, and if that world never really figures prominently in Kim’s comparative take on imperial Japan and Germany, it still plays a large role in setting the scholarly agenda for much of East Asia, regardless of the period. My aim here has not been to diminish that view so much as to broaden and expand its range, especially for the period covering the seventeenth century to the present. If the pharmacopoeia and practice of Ming and Qing continue to interest many, so, equally, should a newer world in which the Japanese empire moved from *kanpō* to its deep engagement with a variety of forms of biomedicine, refracted through the experiences of its individual practitioners and also through an extended period of cultural contact and exchange (Nappi 2009).¹⁶ For much of northeast Asia, this second story adds to and extends the story of medicine and the biosciences to include a number of new possibilities, without necessarily having to lose sight of the first story. Moreover, with the region challenged to deal with emerging developments such as SARS (2003), and, more recently, MERS (2015), it should be abundantly clear why this second story might be of great interest.¹⁷

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Notes

- 1 To cite a well-known example, the journal *East Asian Science, Technology, and Medicine*—published by the University of Tübingen—was known as *Chinese Science* until as recently as 1999. Increasingly, new and forthcoming work on Japan, Taiwan, and Korea—especially that concerning the Japanese empire and its impact in terms of medicine, public health, and pharmacopoeia—is expanding and changing the view for much of northeast Asia.
- 2 If this trend represented a significant problem for the two other major countries in East Asia, Japan and Korea, it also posed a problem for the new and growing literature on

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- many parts of Central and Southeast Asia. On the positive side, the growth of new venues such as FHS Asia (Forum for the History of Science, Asia) and SHOT Asia (Society for the History of Technology, Asia) means that scholars of Asia increasingly have a stronger voice within larger debates taking place regarding the history of STM.
- 3 More recent scholarship, including the work of Daqing Yang (2011), Hiromi Mizuno (2008), Aaron S. Moore (2013), and Takashi Nishiyama (2014), has begun to extend this style of coverage from the Meiji period well into the Taisho and late Showa, encompassing the war years (1931–1945) and even the postwar recovery, and calling into question the representation of a “new” Japan.
- 4 This type of argument has been made for other national contexts, with German–American academic exchange in the late nineteenth century inspiring a great deal of scholarly commentary.
- 5 The use of the term emerges specifically within the context of a discussion of German Orientalism.
- 6 Japanese interest in physical anthropology in sites under Japanese influence, such as China, Taiwan, and Korea, has already begun to attract a good deal of scholarly interest. See, for example, Ock-Joo Kim (2008). See also Jin-kyung Park (2008) of Hankuk University of Foreign Studies (HUFS) on the role of Japan’s medical polices in prisons and policing, especially with respect to gender. The postwar legacy of these practices as inherited by Korean practitioners also remains very much a subject worth pursuing. In addition, the legacy of pre- and postwar Japanese psychiatry is emerging as a new subject of interest, with Theodore Jun Yoo’s *Gender and Madness: The Politics of Care in Korea* (forthcoming).
- 7 Many historians of EASTM, or East Asian Science Technology and Medicine, hold little interest in pursuing the question of the “modern,” per se, at least as defined in terms of a Western periodization, arguing that it locates the history in terms of an entirely different historiographical tradition and understanding.
- 8 Presumably, some scholars of Japan might take issue with this characterization and seek to complicate the process of medical change in Tokugawa Japan. See Jannetta (2007) and Trambaiolo (2014). I do not mean to imply that the transition from *ranpō* to biomedicine was uncomplicated, nor was it “natural.”
- 9 See also Asen (2012) and Luesink (2012).
- 10 Dong-won Shin at the Korea Advanced Insititute of Science and Technology (KAIST) is the major figure here, covering all things medical in the Korean context. Soyoung Suh is based at Dartmouth. For a view placing *hanuihak* in conversation with biomedicine, see the work of Jongyoung Kim (2007). There are also a number of scholars working on this topic at Kyunghee University, famed for its OM (Oriental Medicine) College and its *hanuihak* pedagogy. For biomedicine and gender, see Sonja Kim (n.d.) on Korean women and colonial attitudes toward sex and birth practice.
- 11 In this last instance, Kim references the famous case of Lothar von Trotha and the Herero Wars in German colonial holdings in southwest Africa (present-day Namibia).
- 12 Beriberi ultimately turned out to be a disease linked to vitamin deficiency. This caused enormous confusion in the Japanese context, where German training emphasized the search for a bacterial or viral agent of causation.

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- 13 Under Liu's direction, his group at Academia Sinica is undertaking a comparative Taiwan–Korea medical project. For the politics of identity in colonial Taiwan, see Ching (2001). See also the work of J. Meaghan Greene (2008) on Taiwan's long-term science policy and Ming-Cheng Lo (2002) on Japanese medicine's influence on its Taiwanese practitioners. James Lin's dissertation (forthcoming) includes sections exploring agricultural development as practiced in China and Taiwan and subsequently exported to other countries in the postwar era.
- 14 This holds true not just for the Minnesota Project (1954–1962) and the Scandinavian Project (1958–1968), but also for the large-scale public health interventions (e.g., family planning) of the 1960s and 1970s. Japanese-trained doctors in Korea remained in their positions until at least the 1970s, and this development is just starting to be more fully explored in the Korean context.
- 15 Shiga Kiyoshi, perhaps best known for his work with dysentery, also headed Keijo Imperial University (1929–1931) and was medical advisor to the Governor-General of Korea.
- 16 See also Yang (2012a, 2012b) for recent work on Japanese pharmaceuticals and empire.
- 17 A wonderful example is the March 2015 American Association for Asian Studies panel on “Ecologies in Production: Japan from Meiji to Post-1945,” organized by Lisa Onaga of Nanyang Technological University (NTU).

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