

Gender, Health, and History in Modern East Asia

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With an Introduction by Francesca Bray



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Introduction

Francesca Bray

This volume breaks new ground in the history of East Asian biopolitics, offering the first broad-based exploration of gender and health in the region during the long twentieth century. The core theme is the complex meshing of biology, body, and citizen that underpins projects of biological nation building and molds the forms of modern subjectivity. The nine case studies presented here, spanning Japan, Korea, China, Taiwan, and Hong Kong from the 1870s to the present, demonstrate just how tightly concerns with gender and health have been woven into the enterprise of modernization and nation building throughout the period. Colonial powers and medical associations, government bureaucrats, military personnel, and pharmaceutical companies as well as scientists, educators, and medical practitioners contributed to the legitimation and popularization of evolving scientific discourses and interpretations of the gendered body, sex, and reproductive health. As novel visions of the body and its possibilities took shape, new expressions of individuality, sociality, transgression or resistance, new desires, and fears emerged. Across the region and over the decades, norms and ideals, techniques, terminology, and forms of scientific or cultural authority circulated and converged, faded and resurfaced. In mapping such flows, influences, and reactions, the volume highlights the prominent role that the biopolitics of health and gender has played in knitting and shaping the East Asian region as we know it today.

These studies of biopolitics at work in non-Western contexts offer an excellent opportunity to test concepts that have become common currency in the historiography or social analysis of the biosciences. Critics note that Foucault's contrast between sovereign power and biopower derives from a scientific and political transition specific to early modern France,¹ and that terms like "biosociality"² and "biological citizenship"³ likewise stem from

With many thanks to Izumi Nakayama for her significant contributions to this text.

1. Michel Foucault, *The History of Sexuality*, vol. 1 (New York: Vintage Books, 1978).
2. Paul Rabinow, *French DNA: Trouble in Purgatory* (Chicago: Chicago University Press, 1999).
3. Adriana Petryna, *Biological Citizenship: Science and the Politics of Health after Chernobyl* (Princeton: Princeton University Press, 2002); Nikolas Rose and Carlos Novas, "Biological

Western histories, institutions, and expectations. The question, then, is whether and how well such analytical tools travel and how we can best use them. Should we be thinking in terms of “biopolitics in Asia” or of “Asian biopolitics”?⁴ If the latter, what is distinctive about Asian biopolitics, and what might that distinction tell us about the situated nature of biopolitics elsewhere, including societies like France or the United States, which are so often taken for granted as natural points of reference?

The book is divided into three parts. The first focuses on the biosciences of the body and the constitution of reproductive subjects; the second probes the agency of women as family health-carers, “household pharmacists,” and consuming biocitizens; the third contrasts three cases of problematic virility, considered from the perspectives of medical etiology, sexual identity, and fertility. In this introduction I explore some significant themes that crosscut the book’s three parts. I begin with some remarks on historiographical rationales for treating modern East Asia as a region. Then comes a critical reflection on how as historians we use such apparently natural concepts as health and gender, followed by discussions of biopower, nation building, and biological subjects; resistant bodies and modes of biocitizen agency; demographic control, imposed or embraced; and the national and personal challenges, respectively, of family planning and infertility. Low fertility levels were an essential factor in the economic “miracles” that have transformed East Asian nations into prosperous societies, and I briefly discuss the recent resurgence and rebrandings of “traditional” East Asian medicine that find growing appeal among middle-class families and professional women. I conclude with a discussion of the variants of biogovernance and biocitizenship revealed in the nine chapters.

East Asia: Taking a Regional Perspective

Several landmark studies of biopolitics and modernization in East Asian nations have appeared in recent years.⁵ But research in this emerging field

Citizenship,” in *Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems*, ed. Aihwa Ong and Stephen J. Collier (New York: Blackwell, 2005), 439–63.

4. Nicolas Langlitz, “Is There an Asian Biopolitics?” *BioSocieties* 6 (2011): 487–500.
5. Key studies on the sciences of sexuality, eugenics, and race include Frank Dikötter’s *The Discourse of Race in Modern China* (Stanford: Stanford University Press, 1992), and *Sex, Culture and Modernity in China: Medical Science and the Construction of Sexual Identities in the Early Republican Period* (Honolulu: University of Hawai’i Press, 1995) on late Qing and Republican China; and Sabine Frühstück, *Colonizing Sex: Sexology and Social Control in Modern Japan* (Berkeley: University of California Press, 2003) on Japan and its colonies. On the impact of hygiene and public health, see Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China* (Berkeley: University of California Press, 2004) on late Qing China; Dongwon Shin, “Hygiene, Medicine, and Modernity in Korea,” *East Asian Science, Technology and Society: An International Journal* 3(1) (2009): 5–26, on Korea; Ka-che Yip, *Health and National Reconstruction in Nationalist China: The Development of Modern Health*

requires a confident grasp of difficult languages, extensive literatures, and complex histories as well as of the immediate geopolitical context, so it is hardly surprising that so far most studies, even those that are multiauthored, have focused on a single nation or its immediate zone of influence.⁶ Although some nationally based studies address the regional networks within which their actors operate, typically the main focus is on the nation's relationship to the West. Even if many individual works differentiate between the agendas or contributions of particular Western scientific schools or institutions within a country, the cumulative effect of locally focused studies is to emphasize the significance of their most salient common factor, namely encounters and exchanges with what, by amalgamation, comes to appear as a broadly homogeneous, unitary Western science. Overall, this downplays or obscures the equally crucial circulation of local formulations of science and modernity, the flows and clashes of ideas and people, desires and values, institutions and practices, bacteria and commodities among localities, nations, or zones of influence within the East Asian region. It is important to acknowledge that for East Asians emulating or borrowing from the West is not always the first priority: even in the late nineteenth and early twentieth centuries, they were likely to first look to successful neighbors within the region for models.

Recognizing the serious problems intrinsic to taking the modern nation as a natural unit of analysis, compellingly laid out in the case of China by Prasenjit Duara,⁷ there has recently been a surge of interest in "Asia as method" among science, technology, and society (STS) scholars and historians. The concept of "Asia as method" was first proposed in the 1940s and

Services, 1928–1937 (Ann Arbor: University of Michigan Association of Asian Studies, 1995) on Republican China; and Angela Ki Che Leung and Charlotte Furth, eds., *Health and Hygiene in Chinese East Asia: Policies and Publics in the Long Twentieth Century* (Durham, NC: Duke University Press, 2010) on the Chinese culture zone through the long twentieth century. There is also a substantial literature on Western medicine and modernity in East Asia. Important recent contributions include Hoi-eun Kim, *Doctors of Empire: Medical and Cultural Encounters between Imperial Germany and Meiji Japan* (Toronto: University of Toronto Press, 2014), which analyzes Meiji Japan's adaptation of German medicine for deployment as its own tool of empire; Michael Shiyung Liu, *Prescribing Colonization: The Role of Medical Practices and Policies in Japan-Ruled Taiwan, 1895–1945* (Ann Arbor, MI: Association for Asian Studies, 2009), which charts its applications in colonial Taiwan; and John P. DiMoia, *Reconstructing Bodies: Biomedicine, Health, and Nation Building in South Korea since 1945* (Stanford: Stanford University Press, 2013), which tracks the role of medical modernization in South Korea's nation-building project after its liberation from Japan. Bridie Andrews, *The Making of Modern Chinese Medicine* (Vancouver: University of British Columbia Press, 2014); and Sean Hsiang-lin Lei, *Neither Donkey nor Horse: Medicine in the Struggle over China's Modernity* (Chicago: University of Chicago Press, 2014) take a new approach to the complex relations between Western and indigenous medicine that unfolded in China between the 1890s and 1949, analyzing the two ostensibly irreconcilable forms of medicine in terms of coproduction or coevolution.

6. Luping Bu, Darwin H. Stapleton, and Ka-che Yip, *Science, Public Health and the State in Modern East Asia* (New York: Routledge, 2012) is a rare example of a cross-regional study.
7. Prasenjit Duara, *Rescuing History from the Nation* (Chicago: University of Chicago Press, 1995).

1950s by Takeuchi Yoshimi.⁸ Takeuchi was a fierce critic of Japanese imperialism and what he considered its slavish embrace of the “best,” adopted wholesale from an uncritically admired and supposedly coherent West. Takeuchi drew inspiration from the great Chinese writer and translator Lu Xun, who had trained as a biomedical doctor in Japan before returning to China to take up radical politics. Like the majority of his reformist and revolutionary contemporaries, Lu Xun was convinced that China’s salvation depended upon replacing its “superstitions” (including indigenous medicine) with scientific rationality. But it was essential to cultivate a critical spirit and not to be blinded by uncritical adulation of the West’s supposed perfections. Lu Xun therefore translated numerous “minor works” and resistance poetry by writers from small, oppressed nations in the Balkans or Central Europe, spotlighting the heterogeneity and fractures within “Western civilization” and drawing upon these expressions of resistance and despair to develop a critique of power both in Europe and in Asia.⁹

Takeuchi too rejected the facile East-West binaries that Japan’s politicians and apologists had used to foment nationalist sentiment in favor of imperialist expansion and then, post-1945, to excuse defeat and claim the status of victim. Takeuchi argued that Asians must take full moral responsibility for themselves. Rather than using an idealized West to criticize Asia or to define its future goals, they should develop a critique of both the West and Asia that was firmly grounded in Asian conditions and experience, and that would support new forms of responsible agency. In an eloquent recent formulation by the Taiwanese activist-scholar Chen Kuan-hsing, “[U]sing Asia as an imaginary anchoring point can allow societies in Asia to become one another’s reference points, so that understanding of the self can be transformed, and subjectivity rebuilt.”¹⁰ Yet while arguing for the value of “Asia as method,” Takeuchi also cautioned against essentializing regions or nations, insisting upon the need to “fracture the singularity of Asia into a plurality with its own internal and variegated dynamics of colonialism and resistance.”¹¹

Three or four decades later, with the turn to postcolonial studies that began in the 1990s, Takeuchi’s dual agenda was energetically revived: history must be rescued from the colonially rooted assumption that the modern nation was the natural unit of analysis, while the region must be rescued from the Cold War ideologies and epistemologies of area studies. As a field of organized, cross-disciplinary inquiry into the characteristics

8. Takeuchi Yoshimi, “Asia as Method” (1960), in *What Is Modernity? Writings of Takeuchi Yoshimi*, ed. and trans. Richard F. Calichman (New York: Columbia University Press, 2005), 149–66.

9. Shu-mei Shih, “Theory, Asia and the Sinophone,” *Postcolonial Studies* 13(4) (2010): 473.

10. Kuan-Hsing Chen, *Asia as Method: Toward Deimperialization* (Durham, NC: Duke University Press, 2010), xv.

11. Shih, “Theory, Asia and the Sinophone,” 472–73.

and potential of regions or areas identified as Africa, Latin America, the Middle East, and East, Southeast, South and Central Asia, area studies was vigorously promoted by the post–World War II US government as part of its project to stymie Communism and globalize American values and influence. The discipline of Area Studies came under intense fire as opposition to the Vietnam War grew across American campuses: critics tore to shreds the claimed ideological innocence and objectivity of researchers feeding information about America’s “others” into a war machine.¹²

Many features of the Area Studies project justified its political and intellectual discrediting: the cultural coherence attributed to regions defined primarily by geopolitical strategy; the use of quantitative data to construct models that supposedly identified and explained profound cultural predispositions; the defining premise that America should lead the world and that American-style personal traits, social relations, and democratic institutions were values for which all should strive. But other, less strident branches of regional studies research had meanwhile persisted in the shape of regional journals or professional organizations, and the failure of Area Studies could not erase the value, empirical and analytical, of thinking about and with regions.¹³ The region was debated, reconfigured, and mobilized by post-structural and postcolonial scholars,¹⁴ becoming still more compelling as the concept of globalization infused the world of research, as regional economic alliances like ASEAN (Association of South-East Asian Nations), ECOWAS (Economic Community of West African States), OAS (Organization of American States), and CEPA (Comprehensive Economic Partnership Agreement) gathered strength and as the economic and cultural dominance of the United States and Western Europe became increasingly uncertain. In the face of these new geopolitical realities, scholars and teachers have sought ways to rework and democratize regional studies, to generate “Area Studies Inside-Out,”¹⁵ starting from the viewpoint not of strategists in Washington but of local people.¹⁶

12. For a concise account of the foundations, goals, and techniques of area studies or regional science as it took shape in the post–World War II decades, see Trevor Barnes, “What Regional Studies Might Have Been: Cold War American Social Science,” *Regional Studies* 47(3) (2013): 461–64. Terence Wesley-Smith and John Goss, eds., *Remaking Area Studies: Teaching and Learning across Asia and the Pacific* (Honolulu: University of Hawai’i Press, 2010) provides a very useful comparison of the US area studies project with other scholarly-political-economic regional studies programs, such as the Japanese government’s investments in Southeast Asian studies.

13. Barnes, “What Regional Studies Might Have Been,” 461–64.

14. For example, Martin Lewis and Kären Wigen, *The Myth of Continents: A Critique of Metageography* (Berkeley: University of California Press, 1997).

15. John Goss and Terence Wesley-Smith, introduction to Wesley-Smith and Goss, *Remaking Area Studies*, ix–xxvii.

16. One concrete example is *Teach 3.11*, “a collaborative online educational resource,” initiated in response to the Fukushima nuclear disaster, “powered by volunteer students, teachers, and researchers who produce, translate, and share annotated citations of books, articles,

The question arises, of course, of how we identify a region and where (or whether) we draw its boundaries. Sometimes a region is defined primarily by what it is not (the classic case being Asia as not-Europe), sometimes it is defined as much by colonial history as by geography (sub-Saharan Africa or Latin America). Often what appears as a naturally dense lived coherence is in fact the result of considerable political effort and institutional investment (the European Community). Furthermore, the linkages that constitute a viable region need not be defined in rigidly territorial terms: Chinese Southeast Asia, Nanyang, is a good example of a fluid yet coherent region, its component territories determined at any historical point by where significant numbers of Chinese migrants worked or had settled. East Asia as conceived by the imperial Japanese state in the 1930s (Tō-a) comprises rather different territories or states from the “tributary” East Asian region that the historian Takeshi Hamashita sees as forming a self-conscious unit during the Qing dynasty.¹⁷ In the immediate post-World War II period, the Communist and anti-Communist nations of East Asia had so little communication or exchange that they could legitimately be treated as independent zones. Today, however, they are all (even North Korea) tightly integrated into a region.

In a recent essay on the resurgence of Asia, Prasenjit Duara helpfully delineates the characteristic networks of trade, migration, capital flow, and political linkages that knit together a region known as Asia in successive historical eras: under colonialism, between the world wars, through the Cold War, and, in an unprecedentedly strong coalescence and cohesion, since the Asian financial crisis of 1997. Noting that Asia as a representation (external or internal) and Asia as an integrated social reality are by no means identical, Duara sees Takeuchi’s Asia (“as method”) as “a desired signifier of resistance . . . not [to] be confused with the more substantive goal of achieving regional sustainability by the critique of rampant capitalism and unyielding nationalism.”¹⁸

I am not sure I can agree with Duara that the dizzyingly ambitious goal he formulates is indeed substantive. Most of us, as scholars or as citizens, will be satisfied with more modest aims. But the point is that taking Asia, or East Asia, seriously, whether as a signifier or as a field of action and experience,

films, and other educational resources to help advance knowledge and wisdom about disasters through the angle of the history of science and technology in Asia” (teach311.org).

17. Takeshi Hamashita, “Tribute and Treaties: Maritime Asia and Treaty-Port Networks in the Era of Negotiation: 1800–1900,” in *The Resurgence of East Asia: 500, 150 and 50 Year Perspectives*, ed. Giovanni Arrighi, Takeshi Hamashita, and Mark Selden (London and New York: Routledge, 2003), 17–50.
18. Prasenjit Duara, “Asia Redux: Conceptualizing a Region for Our Times,” *Journal of Asian Studies* 69(4) (2010): 1029. Duara perforce offers a sketch; for a more richly textured and rigorous (Marxist) analysis of cycles of regional cohesion and dispersion in East Asia since 1500, see Giovanni Arrighi et al., eds. *The Resurgence of East Asia: 500, 150 and 50 Year Perspectives* (London and New York: Routledge, 2003).

is at once a method and a political commitment. As a project for rethinking simultaneously the articulations of the world we live in and the tools we have devised to observe and analyze them, it resonates powerfully with unfolding concerns in history and philosophy of science. In the 1980s it was feminist theory that shook our certainties about the truth of science as we knew it, challenging the universalist claims of the Western scientific tradition, providing the analytical tools to expose how supposedly neutral truths were permeated by sexist, racist, and other power-laden assumptions.¹⁹ In the 1990s critics like the feminist philosopher of science Sandra Harding took the next logical step, drawing upon non-Western and postcolonial science to challenge other forms of inequality and hegemony layered into the knowledge claims of Western science and into the associated values and institutions of modernity.²⁰

It is doubtless no accident that the concern to take East Asia seriously as a catalyst of innovative analysis has been specially marked in the field of science studies, for in East Asia the links among STS scholarship, activism, and science policy are unusually close. Fu Daiwie, a philosopher of science and the founding editor of the international journal *East Asian Science, Technology and Society*, commissioned a series of reflections on why East Asia is good to think with in STS—and what “East Asia,” with all its multiplicities and heterogeneities past and present, might mean in such a project.²¹ As Warwick Anderson puts it, “Asia as method” in STS not only offers opportunities for a “fresh critique of technoscience” but constitutes “an ethical standpoint.”²² At one reflexive move further, what cultural values and power relations are built into our supposedly self-critical science studies, and how would “taking Asia as method” expose them? Anderson suggests that it “requires no negation or denial of Euro-American STS, but rather it allows us to treat this Western body of knowledge and practice as ‘one cultural resource among many others.’”²³ Others might wish to argue for a more determined provincialization of Western STS and science studies.²⁴ In either

19. Sandra Harding, *The Science Question in Feminism* (Ithaca: Cornell University Press, 1986); Donna Haraway, “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives,” *Feminist Studies* 14(3) (1988): 575–99; Londa Schiebinger, *Nature’s Body: Gender in the Making of Modern Science* (Boston: Beacon Press, 1993).

20. Sandra Harding, *Is Science Multicultural? Postcolonialisms, Feminisms, and Epistemologies* (Bloomington: Indiana University Press, 1998).

21. Daiwie Fu, “How Far Can East Asian STS Go? A Position Paper,” *East Asian Science, Technology and Society* 1(1) (2007): 1–14; Fa-ti Fan, “East Asian STS: Fox or Hedgehog?” *East Asian Science, Technology and Society* 1(4) (2007): 243–47; Warwick Anderson, “Asia as Method in Science and Technology Studies,” *East Asian Science, Technology and Society* 6(4) (2013): 445–51.

22. Anderson, “Asia as Method,” 445, 449.

23. *Ibid.*, 448, quoting Kuan-Hsing Chen, *Asia as Method*, 233.

24. Langlitz, “Is There an Asian Biopolitics?”

case, however, it is clear that the two critical projects, science studies and Asia as method, can greatly benefit by joining forces.

This is the principle upon which the contributors to this volume proceed. While by no means dismissing the key importance of Western influence and power, their studies demonstrate that to understand the cultural and institutional resources and the worldviews that individuals, corporations, or states in modernizing or contemporary East Asia bring to decision making or policy, we need to give full weight to intraregional circulations, exchanges, and influence, and to factor in the imprint of common historical legacies. In the cases discussed in this volume, such shared experiences or preferences include the long-term impact of foreign colonialism, Japanese imperialism and Cold War alliances, repeated reformulations of “Confucian values” or “traditional medicine,” and even long-standing brand loyalties.

Questions of Health and Gender

Health and gender are such everyday terms now, so deeply rooted as common currency in our personal lives, social institutions, and academic debates, that they appear quite straightforward topics for historical research. But, like sex and reproduction, or male and female, they are heavily loaded terms, denoting complicated concepts with vexed histories even in their native context. What happens when we transpose such terminology into another historical or geographical context? At this point we realize that we must treat these concepts not as natural facts but as what Raymond Williams calls keywords, terms denoting prominent features of our social experience that we use to explain our world and that we feel drawn to investigate and compare. We use words like culture or market, technology or environment, medicine, health, or gender as if they were obvious, universal, and unambivalent, yet as Williams notes they enfold complex histories and multiple, often inconsistent or contested meanings. Because they are polysemic they are rhetorically, analytically, and politically powerful—and also insidious.

Morally and philosophically loaded as it is, even the basic terminology of reproduction, sexuality, or gender, of health, normality, or deviance, did not (and still does not) translate easily among German, French, and English, let alone into or among Japanese, Chinese, or Korean. How should a scientist or author choose between competing terminological claims? Howard Chiang²⁵ tracks how Republican Chinese life scientists reached consensus on a terminology of male and female difference that would meet the requirements of the new biological science and its epistemologies. To denote biologically

25. Howard Hsueh-Hao Chiang, “The Conceptual Contours of Sex in the Chinese Life Sciences: Zhu Xi (1899–1962), Hermaphroditism, and the Biological Discourse of Ci and Xiong, 1920–1950,” *East Asian Science, Technology and Society* 2(3) (2008): 401–30.

male and female (whether animal or human), they adopted *xiong* 雄 and *ci* 雌, terms traditionally used to designate male and female animals. For discussion of human norms and individual variants, they supplemented *xiong* and *ci* with the social terms *nan* 男 and *nü* 女 (man and woman). This new terminology put a very different ontological and epistemological spin on human sexual difference and gender from the evolving, mutually interdependent differentiation implied by yin and yang, the cosmologically rooted terms used traditionally (and still today) in Chinese medical theories of sex and sexual difference.²⁶

So what are the challenges and rewards for historians of studying societies distant from our own in space or time through the lens of modern Western concepts like gender, health, or the paired term “gender and health,” which in linking the two individual concepts implies strong forms of association between them? Is it legitimate, feasible, and fruitful to think of Al-Andalus, ancien régime France, or even Republican China or contemporary Japan in such terms? There is the risk that we shall distort the past by forcing it into modern categories that were not recognized in the language or lives of the historical actors, like gender, or that, like health, existed earlier in rough equivalents but were construed quite differently. Yet there is also the exhilarating promise of flinging open new windows not only onto the past but also onto the present, the process of critical comparison pushing us to probe the politics and assumptions of our research and of our broader society. The East Asian cases presented here are particularly illuminating, since they present the concepts of gender and health in motion. We see how new terms are coined and existing terms redefined, first in response to the introduction of concepts from the West and their filtering through East Asian communities of practice. Then, as time goes by, we are shown how keywords and clusters of association, ideals of healthy masculinity and femininity, shift in the face of new challenges and demands.

As mentioned earlier, there is now a sizeable body of research on the themes of medicine, medical services, and public health, in individual East Asian nations and occasionally also at regional level. But the science of gender and its historical unfolding, while central to state policies and profound in its personal impact, has hitherto received less explicit attention. Yet the nexus of gender and health is a compelling theme. Prominent in the earliest plans for modernization, it represents an area of private life and personal characteristics in which East Asian “developmental” states have actively and confidently intervened ever since. Yet, by the same token, in this arena of sexuality and gender where the personal is the political and the body encounters the state, the challenges of imposing scientific norms and propagating “healthy,” “rational,” or “responsible” practices and values

26. Ibid.

across space, class, and culture are particularly fraught. As in other parts of the world, among the nations of East Asia this has been a minefield of resistance, contestation, and radical claims over reproductive rights, definitions of normality, gender norms, and sexual identity. It is thus a richly documented field, yet so far it has received little attention outside the narrower context of birth-control programs.²⁷

Biopower, Nation Building, and Biological Subjects

In focusing on the nexus of health and gender, this volume fills a significant gap in the literature.²⁸ It offers stimulating and often surprising new insights into the making of modern history in the vibrant region of East Asia, not least because this biopolitical arena has been regarded as vital by its governments, scientists, and citizens for more than a century.

If sex was the “most secret quintessence of life” in the minds of European and North American biochemists and other scientists in the early twentieth century, issues of sexual characteristics and desire, gender roles and behavior, and heterosexual reproduction as well as marriage, love, passion, and how they relate to friendship and companionship similarly dominated the intellectual horizon of Chinese modernizing thinkers, including public intellectuals, university professors, scientists, physicians, self-appointed experts, etc. . . . Not only did they see sex as an important subject of scholarly inquiry, but they saw it as such precisely because of their conviction that the question of life was inextricably bound up with the question of sex.²⁹

As Howard Chiang notes, for East Asian elites of that period the “question of life” was not merely a matter of intellectual or philosophical concern: the very survival of the nation was at stake.³⁰ This certainly applied to China, which, having endured several decades of Western encroachment on its sovereignty, experienced the culminating humiliation in 1895 when it was defeated by Japan, a former vassal state traditionally viewed as an inferior civilization.³¹ The new biopolitics had begun to take shape even earlier in

27. On birth control see below, “To Whom Does My Body Belong?”

28. One important strand in the literature on gender and health not addressed in this volume is the gendering of the modern biomedical professions (doctors, nurses, and midwives) and the roles of these different professional groups as agents of modernization; pertinent studies include Aya Homei, “Midwives and the Medical Marketplace in Modern Japan,” *Japanese Studies* 32(2) (2012): 275–93, on the introduction of the “new” midwifery in Meiji Japan; and Tina Phillips Johnson, *Childbirth in Republican China: Delivering Modernity* (Lanham, MD: Lexington Books, 2011) on the biomedicalization of midwifery in Republican China.

29. Chiang, “Conceptual Contours,” 406.

30. So too was the very conception of modernity: could or should the “philosophy of life” be determined by the scientific method rather than by Confucian or other religious principles? See Lei, *Neither Donkey nor Horse*, 11.

31. Frank Dikötter pioneered historical scholarship in this field of East Asian studies, showing how physiological and sexual anxieties interwove in late Qing and Republican China to

Part I

Bodies beyond Boundaries: Evolving Physical Development and Reproductive Technologies

This section, containing chapters by Nakayama, Lee, Wu, and Ha, highlights processes that standardize gendered bodies in health and reproductive policies in modern and postcolonial East Asian states in face of changing demographic needs and realities. Nakayama and Lee zoom into Japan and China during the first half of the twentieth century, examining how the “standard” models of the body and physical growth were constructed by studies in child development and school textbooks. Theories of physical development, “Asian” or otherwise, shaped and were shaped by state anxieties over gender norms in imagined racial and civilizational hierarchies as well as “normative” familial relationships in a conflicted pursuit and construction of modernity. Shifting to postcolonial Taiwan and South Korea, Wu and Ha engage with the ongoing processes of forming and challenging gender norms through new reproductive technologies. In Taiwan, the controversy is over the state’s policy to exclude assisted reproductive technologies (ARTs) based on the official narrative of normative “families.” Meanwhile, South Korean laws have defined, redefined, and regulated gender norms and reproductive health by controlling legal and financial access to these new reproductive technologies.

Gender, Health, and the Problem of “Precocious Puberty” in Meiji Japan

Izumi Nakayama

Introduction¹

Japanese children were precocious, and that was the problem. Not intellectually, per se, but physically. Mishima Michiyoshi 三島通良 (1866–1925), a pioneer of school hygiene (*gakkō eisei* 学校衛生), came to this conclusion after having gathered physical data from children all over Japan starting in 1892 to understand their physical development. In every stage of child development, Mishima meticulously compared notes with the data from his selected European counterparts and emphasized the sameness between Japan and the “West,” as if the “West” was the original standard and Japan needed to match it. For Mishima, any variations between Japanese and Western data constituted a problem to be explained and resolved. Japanese boys and girls were experiencing puberty *too early* (and the European examples appeared to Mishima, to borrow the words of Goldilocks, “just right”). This deviation from the normative West was interpreted as a source of the inferiority of Japanese height and length of limbs, because, as Mishima noted, Japanese children kept pace with their Western counterparts at every stage of development until puberty.² After puberty, Japanese bodies stopped growing, he argued, remaining underdeveloped in comparison to Western children, resulting in shorter limbs and stature.

The Japanese body was under attack in the late nineteenth century during the period of Euro-American imperialism, unequal treaties, and the evolving new international order. It was too small, too short, too weak to compete with the imagined “Western body”; apparently, there was a lot for the Japanese elites to be anxious about. The revolutionary reforms

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1. I would like to thank all the participants of the workshops and the two anonymous reviewers for their comments. I am also very grateful to Jan Kiely for his input and support.
 2. Mishima Michiyoshi, *Nihon kentai shōni no hatsuikuron* [The theory of healthy Japanese children’s development] (Tokyo: Dai nihon tosho, 1902), 247–48.

undertaken by the new Meiji government had resulted in the transformation of a once-isolated, resource-poor country into the most industrialized and militarily powerful nation-state in early twentieth-century East Asia. And yet Japan was compelled to conform to Western standards of “civilization” in order to rid itself of unequal treaties.³ At the time, government officials and social critics made frequent and often obsessive comparisons between Japan and the Western “civilized” nations. The strength of the new nation was supposed to be demonstrated by the vitality, and more importantly, the physical stature of its people. The bodies of the Japanese people did, for many officials and intellectuals, represent a natural resource that had to be developed and marshaled in the new age of competition of races between nation-states. Yet as this historical examination will show, how intellectuals, government bureaucrats, school hygienists, and pediatric specialists of the Meiji period viewed and interpreted children’s bodies and their physical growth illustrates the complex interactions between the ideals of civilization and its associated gendered norms.

The “precociousness” of Japanese girls and boys, measured not in absolute age but in relation to the idealized Western body, and the supposed resulting physical underdevelopment embodied significant gendered differences and interpretations.⁴ For a girl, the timing of her menarche, deemed “early” or “late,” was perceived by a wide range of male medical doctors and intellectuals to reveal the degree to which she was physiologically “civilized.” As I have discussed elsewhere, these Japanese medical specialists in the Meiji period pushed forth a range of new interpretations of menstruation based on medical knowledge informed by ideas of a sociocultural and racial civilizational hierarchy, both domestic and international. In the last decades of the nineteenth century, menstruation was no longer a source of female impurity but a physiological phenomenon with serious consequences, and a foundation for the health of a woman, a family, and the nation.⁵ Yet for Japanese boys, their condition was much less definite. Without a single, standardized indicator of puberty (like menarche), their physiological transformation was more opaque and wide ranging, including signs such as growth of pubic and facial hair, muscular development, coarsening of the voice, ability to have an erection, and nocturnal emissions. With this, medical specialists and social commentators focused on a physical act that represented, among other things, puberty: masturbation. While concerns

3. For a perspective taking international relations theory and ideas about the “European International Society” into account, see Shogo Suzuki, *Civilization and Empire: China and Japan’s Encounter with European International Society* (London: Routledge, 2009).
4. For studies on actual cases of precocious puberty in the nineteenth century, see, for example, M. Jeanne Peterson, “Precocious Puberty in the Victorian Medical Gaze,” *Nineteenth-Century Gender Studies* 4(2) (Summer 2008). <http://www.ncgsjournal.com/issue42/peterson.htm>.
5. For more details on these menstrual discourses, see chapter 2 in Izumi Nakayama, *Politics of Difference: Menstruation in Modern Japan* (manuscript in preparation).

over the assumed relationship among masturbation, neurasthenia, and the young male body was not unique to Japan within East Asia, the rationale for the civilized body differed in its interest for the delaying of puberty.⁶

Civilized Bodies

The idea of a child as a mnemonic device for the nation-state was, as Stefan Tanaka noted, integral to the development of the nation itself.⁷ But even before the studies of child development, the links between the construction of a modern “civilization” and the national body had already been theorized in social Darwinist terms by some of the Meiji era’s most important intellectuals. The relationship between ideas of civilization and the body was implied in the late nineteenth century by intellectuals theorizing on the changes not only of Japan as a nation-state but also its people. In 1875, Nishi Amane 西周 (1829–1897) wrote in the *Meiroke Zasshi*, “In the seven year period since the Meiji Restoration, people’s bodies have transformed from their bones.”⁸ While Nishi most likely wanted to emphasize the dramatic political (as well as the resulting sociocultural) transformation of Japan since 1868, he also anticipated subsequent discussion of the body. His implication was that the major sociopolitical reforms required an equally dramatic transformation of Japanese bodies. Fukuzawa Yukichi 福澤諭吉 (1835–1901) commented, writing, “[Nishi] says that, during the seven years already passed since the Restoration, men, even physiologically, have fundamentally changed from the bones of their bodies and that it is indeed a fact that the enlightenment of society has invariably progressed during the subsequent days and months.” However, for Fukuzawa, it was insufficient. He believed “[t]here has been

6. For examples in China, see Hugh Shapiro, “The Puzzle of Spermatorrhea in Republican China,” *positions* 6(3) (Winter 1998): 551–95; and “Neurasthenia and the Assimilation of Nerves into China” (23rd International Symposium on the Comparative History of Medicine, Seoul, Korea, July 5–11, 1998). <http://www.ihp.sinica.edu.tw/~medicine/conference/disease/shapiro.PDF>, accessed January 1, 2016.

7. Stefan Tanaka, “Childhood: Naturalization of Development into a Japanese Space,” in *Cultures of Scholarship*, ed. S. C. Humphreys (Ann Arbor: University of Michigan Press, 1998), 22–23.

8. Nishi Amane, “Naichi ryokō” [Domestic travels], *Meiroke zasshi* 23 (December, 1874). *Meiroke Zasshi* [Journal of the Japanese Enlightenment], trans. and with an introduction by William Reynolds Braisted, with the assistance of Adachi Yasushi and Kikuchi Yūji (Cambridge, MA: Harvard University Press, 1976). In the 1976 translation, the reference to “bones” is translated as the national body. I altered the translation to give more attention to the term “bones” of the human body. This is not the first discussion of human bones in relation to foreign relations for Japan. In the eighteenth century, Arai Hakuseki, in discussing the issue of foreign trade, likened Japan’s natural resources to that of human bones—something essential that could not be replace or replenished. See notes on Sugi Kōji, “On Reforming Trade,” in *Meiroke zasshi*, 307.

a renewal of the bone structure/quality during the last seven years, but the people's spirit undoubtedly remains as before."⁹

The problem of post-Meiji Restoration transformation of Japan for Fukuzawa was its superficiality, and yet he believed this had physical consequences as well. In his series of articles "On Japanese Women" published in 1885, Fukuzawa criticized Japanese society's long-standing "ill-treatment" of women that had left Japanese women weak and inferior, both physically and emotionally, and *so bearing weak children*.¹⁰ He was equally critical of men's bodies. Japanese men, Fukuzawa held, had become effeminate and weak during the Tokugawa period. In times of peace, male bodies became weaker and smaller and were no longer able to support the suits of armor worn during the Warring States period. Male and female bodies were a fundamental reason for the nation's lagging behind in what he perceived as the global "civilizational" rankings.¹¹ Writing in the years prior to the termination of the unequal treaties and the Sino-Japanese War, Fukuzawa was very much concerned with not only the state of the physical body but the "barbaric" practices that rendered the Japanese body inferior in relation to the West. While he considered intermarriage with other races a benefit, Fukuzawa was initially optimistic, primarily arguing for a cultural transformation that would overcome the historical and social factors detrimental to the physique of the Japanese and, hence, to the country.

Even after Japan's military victories in the Sino-Japanese and Russo-Japanese Wars were perceived by many to have demonstrated the attainment of a certain level of "civilization," the former insecurities about the Japanese body remained. Okuma Shigenobu, a politician who later became

9. Braisted, *Meiroke Zasshi*, 321. Here, Braisted's translation is "bone structure," although "bone quality" may be more appropriate. The major point of contention between Nishi and Fukuzawa was not the quality of Japanese bone mass or structure. The discussion centered on whether to allow foreigners to travel freely (*naichi ryoko*) within Japan prior to the elimination of the unequal treaties, particularly through the larger question of "mixed residences" (*naichi zakkyo*) or the legal restrictions concerning the travels, commerce, and residences of foreigners in Japan. Without the power of jurisdiction, litigation for foreigners' offenses was difficult for Japan, and Fukuzawa worried anxiously about injury to the "independence of the country." Fukuzawa's opinion opposing mixed residence was later indirectly supported in 1892 by Herbert Spencer, the English political and sociological theorist, but with a different rationale. Spencer weighed in on the question of Japanese mixed residence with foreigners (meaning Caucasian Americans and Europeans) and advocated keeping them away "as much as possible at arm's length" from the Japanese people. This physical separation, as argued by Spencer, was necessary for the survival of the Japanese, for intermarriage with a superior race would result in the decline of the inferior race. See letter to Kaneko Kentaro, in *The Life and Letters of Herbert Spencer*, ed. David Duncan (Methuen, 1908), vol. 2, 14–18, quoted in Kenneth Pyle, *The New Generation in Meiji Japan: Problems of Cultural Identity 1885–1895* (Stanford: Stanford University Press, 1969), 110.
10. Fukuzawa Yukichi, "Nihon fujin ron" [Theories on Japanese women], *Ijishimpō*, June 4–12, 1885, republished in *Fukuzawa Yukichi on Japanese Women: Selected Works*, trans. and ed. Eiichi Kiyooka (Tokyo: University of Tokyo Press, 1988), 6.
11. Fukuzawa, "Nihon fujin ron," 54.

prime minister, wrote in 1913 how he believed that the historical environment and sociocultural influences specific to Japan led to the "unnatural development" of the Japanese people. Okuma, unlike other intellectuals who focused on the physical frailty of Japanese women as the source of national weakness, argued that the "feudal class hierarchy" in recent Japanese history resulted in immense pressures from "above," causing lower-class individuals, particularly men, to bend over, walking while looking at the ground. This style of walking led to poor posture and shortness in stature and, in Okuma's opinion, to depression. And this further led to a subservient and pessimistic outlook. Such "ill" mind-sets and bodies, Okuma argued, made for a naturally inferior race compared to the Europeans, "who strode through the streets," unhindered by such historical pressures. These Europeans had excellent posture, walked with dignity, and, according to Okuma, had "fully and naturally developed." These "naturally developed" European bodies represented the physical standard, one deemed to be universal and imminent like Western civilization.¹² Okuma's assessment of Japanese poor posture was a kind of excuse for the physiological "inferiority" of the Japanese vis-à-vis the "naturally developed" bodies of the Europeans. Similar to the Chinese "natural feet" discussion examined by historian Dorothy Ko, the Japanese, according to Okuma, could have "naturally developed" had they not been crushed under the weight of the "feudal class hierarchy."¹³ This historical sociocultural interpretation of Okuma, however, implied the potential for the Japanese body to improve and even catch up to, or surpass, the Europeans. Whether influenced by Confucian or Lamarckian perspectives on "soft inheritance," Okuma believed that this would all depend on whether the "uncivilized" norms and mind-sets could be changed. The Japanese race, Okuma held, was not inherently inferior but just a victim of history. Okuma's images of these superior "Western" bodies were based not on a particular nation-state (although most likely British, French, or German) or on a set of quantifiable data of physical measurements but, rather, on his impressions and ideals. As with the other discussions, references to "tradition" and "civilization" were made as part of an assumed linear narrative, in which Japan would have to shed unproductive practices from the past in order to join the universal, Western "civilization." The concept of the West was cultural, not

12. Okuma Shigenobu, *Taiyo* [The sun] (Hakubunkan, 1913), 413–14. Fukuzawa also criticized the ideal feminine physique endorsed by "tradition." "Willow waists" and "squash-seed face" may not sound attractive in English, but a thin-waisted woman with a pale, white oval face had been considered the ideal Japanese beauty. Yet critics argued such beauty standards elevated female frailty as an attractive characteristic to which women aspired, leading to the birth of frail Japanese children by frail mothers. Described as "geisha-like" or "the hysterical type," the transformation of Japanese women into healthier, robust beings was integral, as women were the medium for improving the Japanese body.

13. See Dorothy Ko, *Cinderella's Sisters: A Revisionist History of Footbinding* (Berkeley: University of California Press, 2005).

geographical, according to some optimistic believers, and whatever racial or religious prejudice may threaten Japan's trajectory, Japan could theoretically transform itself into attaining upward mobility and, finally, equality in the competition of civilizations. With this view of linear progression toward an assumed natural state (that was Western), perhaps it was not surprising that Japanese children were seen as the hope for the future; conflating the biological with the social, cultural, and political, Mishima viewed the physical growth of children as corresponding to the development of the nation.

The Japanese terms used to translate "development" in the late nineteenth century were many: *seichō* (成長), *hatsuiku* (発育), *seiiku* (生育), *nenchō* (年長), *hattatsu* (発達). In 1843, Rangaku scholar Horinouchi Sodō 堀内素堂 (1801–1854) translated selections of Christoph Wilhelm Hufeland's medical text as *Yōyō seigi* (幼幼精義), which became one of the earliest basic texts of pediatrics, and used the word *hassei* (発生) for the Dutch word *ontwikkeling* (development).¹⁴ In another context, as educational historian Tanaka Masato has shown, the English word "development," as used in J. S. Mills *On Liberty* was translated as *hattatsu* (発達) by Nakamura Masanao 中村 正直 (1832–1891) in 1872. This, Tanaka argued, was not simply a matter of choice (using *hattatsu* over *hassei* or *hasshutsu* [発出]), but a deliberate understanding of a continual "developing" process. The "development" of virtue was understood as *hassei*, that of moral conduct as *hasshutsu*, and the culminating individual was *hattatsu*.¹⁵ Maeda Akiko, an educational historian who examined a wide range of Dutch-Japanese and English-Japanese dictionaries from the late eighteenth to early twentieth centuries, explained that *hattatsu* was used to describe emotional and intellectual changes, while *seichō* was used more often to refer to physical transformations in the 1870s. However, there was a shift from *hassei* to the common use of *hattatsu* in the 1880s, which came to include ideas of emotional, intellectual, and physical development.¹⁶

14. The medical text was titled *Bemerkungen über die natürlichen und impfen Blattern, verschiedene Kinderkrankheiten, und sowohl medizinische als diätetische Behandlung der Kinder* (1798). Hufeland's text was translated into Dutch by J. A. Saxe, and Horinouchi worked from the Dutch text. See Tanaka Masato, "Rangaku ni okeru hattatsu no gainen no donyū ni tsuite (1–3)" [The introduction of the concept of development in Dutch studies], *Kyōto daigaku kyōiku gakubu kiyō* [Bulletin of the Faculty of Education, Kyoto University] 39–41 (1993–1994); and Maeda Akiko, "Seichōron ni okeru hon'yaku goro no yakuwari: Jūhachi, jūkyū seiki nihon no kosodate ron to shōni igaku ni chakumoku shite" [The role of translated terms in child development: Focusing on child raising and pediatrics in the eighteenth and nineteenth centuries in Japan], *Hitsotsubashi ronsō* 124(4) (Oct 2000): 547–53.

15. Tanaka Masato, "Bunmei kaikaki ni okeru hattatsu no gainen no donyū ni tsuite" [The introduction of the concept of development in the period of Bunmei kaika], *Kyōto daigaku kyōiku gakubu kiyō* 34 (1998): 116.

16. Maeda Akiko, "Kindai Nihon no hattatsu gainen ni okerushintairon no kentō" [Education and the idea of development in modern Japan], *Kagoshima daigaku kyōiku gakubu kenkyū kiyō kyōiku kagaku hen* [Bulletin of the Faculty of Education, Kagoshima University, Studies in Education] 59 (March 2008): 283–95, 287.

The concern with physical development arose as a consequence of a “civilized” institution: the modern school system. In the first decades of the Meiji period, numerous Japanese medical doctors and hygiene specialists, out of fear that the modern education system and the physical structures of the schools themselves impacted and impeded the growth and vitality of young bodies, began scrutinizing the bodies of school children. They were not alone, as doctors and pediatricians in Germany, the United States, and England contemporaneously developed the field of school hygiene in the late nineteenth century, and, by 1904, the First International Congress for School Hygiene was held in Nuremberg. Japan was represented, along with the United States and numerous other European countries.¹⁷

The use of biometric data to decry the decline of children’s health was a phenomenon shared in industrializing countries from the nineteenth century onward. Japanese concerns, tinged with a sense of inferiority to the imagined Western body and power, emerged in a period when the government attempted to get rid of unequal treaties and to gain equal standing in the international hierarchy. Richard Meckel, an American historian of public health, also pointed to the turbulent period between the US Civil War and World War I as the moment when American school hygiene became “the object of a discrete and significant discourse within the essentially urban public health movement.”¹⁸ His research demonstrated striking similarities to the Japanese case, when the rise of US public education raised new ideas and gendered concerns over mental overwork, physical development, and civilization, or, as expressed in the words of G. Stanley Hall, “[W]hat shall it profit a child if he gains the whole world of knowledge and loses his own health?”¹⁹ Yet Americans also struggled with a different set of anxieties, categorized by additional domestic hierarchies based on race, religion, or even subregions.

In Japan, like elsewhere, school hygiene (*gakkō eisei*) was used to diagnose and cure those suffering from the “civilizing” effects of school through “school illness” (*gakkō byō* 学校病).²⁰ Yet the normative standard of a healthy body and development was an imagined perfect Western one, conveniently

17. See *Nature* 69 (1798) (April 14, 1904): 572, for details on the First International Congress for School Hygiene.

18. Richard Meckel, “Going to School, Getting Sick: The Social and Medical Construction of School Diseases in the Late Nineteenth Century,” in *Formative Years: Children’s Health in the United States, 1880–2000*, ed. Alexandra Minna Stern and Howard Merkel (Ann Arbor: University of Michigan Press, 2002), 187.

19. *Ibid.*, 201.

20. See Izumi Nakayama, “Posturing for Modernity: Mishima Michiyoshi and School Hygiene in Meiji Japan,” *EASTS* 6(3) (September 2012). Also, it is important to note that even before Mishima, there were opinions within the Ministry of Education, notably David Murrar (1830–1905), who pointed to the constrained seating arrangements and its detrimental effects on children of poor health. For a detailed account, see Kondō Mikio, “Meiji chūki ni okeru gakurei mimanji no shūgakukinshi tsūtatsu ni kansuru kentō” [Study on prohibition

overlooking the anxieties expressed by physicians in the United States and elsewhere. As government officials, medical doctors, and intellectuals of the nascent nation-state viewed the national body as weak and inferior in relation to the West, various ideas on how to “remedy” the situation emerged from these diverse groups, led foremost by Mishima Michiyoshi.

Mishima Michiyoshi and Child Development

“A pedophilic pervert” was what newspapers called Mishima for his interest in children’s bodies. Some fanned suspicions that his physical examinations would “shorten lifespans.”²¹ On his way to pioneering school hygiene in Japan, Mishima was not bothered by such criticisms, nor did he question the scientific value of his studies. Having entered Tokyo Imperial University Faculty of Medicine in 1884 and in 1889 continuing on to its postgraduate program, Mishima chose to focus his research on pediatrics, examining the physical development of able-bodied children.²² In 1891, the Ministry of Education commissioned Mishima, who was still a graduate student, to survey the state of elementary school hygiene throughout the country. Through this project, Mishima established himself as a leading school hygiene expert. He stayed on with the Ministry of Education to become the director for the School Hygiene Division in 1896, later traveling to study in Germany, England, and France in 1903.²³ He published widely on the topic of school hygiene, pre- and postnatal care, child development, and physical education, and translated numerous medical texts into Japanese.²⁴

In 1892, Mishima began one of the first surveys focusing on the measurement of children’s bodies ever to be conducted in Japan. Statistical surveys in Japan began around 1872, when Sugi Kōji 杉亨二 (1828–1917), a Dutch studies scholar turned Meiji bureaucrat, influenced by Dutch work on

of entering school notice for children pre-school age in the middle of the Meiji era], *Nagano-ken tanki daigaku kiyō* 60 (December 2005): 99–109.

21. Mishima, *Nihon kentai*, 10.

22. The term “able-bodied” is used as opposed to “disabled children.” Sugiura Morikuni, *Wagakuni gakkō eisei no sōshisha Mishima Michiyoshi (jō)* [Mishima Michiyoshi, founder of our nation’s school hygiene (part 1)] (self-published, 1971). In 1890, Mishima was one of the founding members of Mumeikai (無名会), the origins of the Japan Pediatric Society. In 1892, he founded the Imperial Vaccine Institute (Teikoku Tōbyōin 帝国痘苗院) with Numano Kōtarō 沼野孝太郎 to deal with the smallpox epidemic.

23. Upon his return, he resigned from his post at the Ministry of Education, because of bureaucratic redistributions and the closing of the School Hygiene division. For more, see Nakayama, “Posturing for Modernity.”

24. While beyond the scope of this chapter, Mishima’s works were introduced to Qing China soon after their publication in Japan. See Shō Taihō (Shang Dapeng), “Shinchō makki ni okeru shintaikan no keisei wo meguru Nihon no eikyō ni kansuru kenkyū” [Study of the Japanese impact on the formation of late Qing views of the body], *Heisei 17 nendo kenkyūhi hojokin kenkyū kekka hōkokusho* [2005 report for the research outcomes based on the grants-in-aid for research], March 28, 2006.

statistics, headed what is now known as the Statistics Bureau in the Ministry of Internal Affairs and Communications and began editing Japan's first national statistical handbook. In 1874, Mitsukuri Rinshō 箕作麟祥 (1846–1897), a French-educated Ministry of Education bureaucrat and legal scholar, translated *Eléments de statistique* by Alexandre Moreau de Jonnès (1778–1870) and coined the term *tōkei* (統計) as the Japanese equivalent for “statistics.”²⁵ All these scholars, including Nishi Amane and Tsuda Mamichi 津田真道 (1829–1903), who studied with Simon Vissering at Leiden University, were involved in the influential Meiji 6 Society (Meirokeisha), and their research interests and translations highlighted the significance of statistics and statistical surveys in the late nineteenth century.²⁶ In this vein, Mishima participated in the Japanese expectation that statistics could greatly benefit national interest through the collection of data.

Mishima began his 1892 commissioned study by first conducting a physical examination of more than 1,000 students attending Tokyo's elementary schools. Through this initial survey, Mishima came to believe that the new and modern education system in Japan was weakening the bodies of schoolchildren by enforcing long hours in the classroom without providing appropriate study environments. The complete national survey commissioned by the Ministry of Education, published in 1895 as *School Hygiene Investigative Report Conspectus*, covered regions from the southern island of Kyushu to the northern prefectures of Aomori and Akita. This report, reflecting Mishima's interests in addition to the commissioned assignment, first dealt with the physical structures of school buildings. The second half of the report was an investigation of student bodies and their development. This was Mishima's starting point for collecting data on the physical development of Japanese children.²⁷

Mishima's *Developmental Theory of Japanese Able-Bodied Children* was based on his doctoral thesis, submitted to the Tokyo Imperial University in April 1902 for his degree four months before the publication of the book. The subject data he collected for this project was extensive: 9,609 boys and 7,467

25. The Dajōkan shōin seihyōka (太政官正院政表課), and the edited volume was titled *Nihon seihyō*. See Kaji Shigeo, *Sugi Kōji den* [Biography of Sugi Kōji] (Tokyo: Aoi shobō, 1960). Mitsukuri was the son of Dutch studies scholar Mitsukuri Genpo and educated in English, French, and German from a very young age. See Yoshi'i Tamio, “Seiō kindaihō no juyō to Mitsukuri Rinshō” [Mitsukuri Rinshō and the reception of European modern law], in *Meiroku zasshi to sono shūhen: Seiō bunka no juyō, shisō to gengo* [Meiroku Journal and its environs: The reception, philosophy, and language of Western culture], ed. Kanagawa daigaku jimbungaku kenkyūjo (Tokyo: Ochanomizu bunko, 2004).

26. For the Dutch influence on the Japanese “statistical boom” in the late nineteenth century, see Okubo Takeharu, *Kindai nihon no seiji kōsō to oranda* [Modern Japanese political initiatives and Holland] (Tokyo: Tokyo University Press, 2010). For the Chinese example, see Tong Lam, *A Passion for Facts: Social Surveys and the Construction of the Chinese Nation-State 1900–1949* (Berkeley: University of California Press, 2011).

27. For details on this survey, see Nakayama, “Posturing for Modernity.”

girls, totaling 17,076 Japanese children ranging from newborns to age fifteen. Newborns and infants up to the age of three were patients of the pediatric section of the Medical University, while the other children were examined in kindergartens and higher schools throughout Japan.²⁸ The lack of real statistical data, Mishima argued, was obstructing the progress of science in Japan and was an embarrassment.²⁹ He planned to remedy the situation, explaining how the development of school hygiene in Japan was not too far behind its European counterparts, referring to the 1877 publication of *Handbuch der Schul-Hygiene* by Adolf Baginski (Baginsky, 1843–1918) as the starting point. While Mishima did not completely dismiss the methodology or the conclusions arising from the works of Adolphe Quételet (1796–1874) and his idea of *l'homme moyen* (“the average man”), based on the mean values of measured variables, he also explained the rationale for his extensive survey by noting that while there were the translated studies and surveys by Quételet and Henry Pickering Bowditch (1840–1911), these works dealt with different races, climates, food, clothing, housing—all of little relevance to Japan.³⁰ Therefore, he began collecting data as his commissioned project for the Ministry of Education commenced and continued his research over the years, despite difficulties in gaining public support for these physical surveys. Such behavior, he felt, only proved to him the lack of “civilization” in Japan still, and its consequences for the body.³¹ Nevertheless, Mishima lamented the uncooperative state of affairs in Japan and believed that his research would not rise to the accuracy of Euro-American standards.³²

One of the original questions leading Mishima to this survey was why the Japanese were “a precocious race.”³³ “Precociousness” and “precocious puberty” remain a modern medical term that describes a physical

28. He specifically noted the regions as “Tokyo, Kinai, Sanyō, Sanyin, Shikoku, Kyūshū, Ōba.” The majority of the children aged four to six surveyed here attended kindergarten. The categorization by age was important, as he discovered in Kyūshū and elsewhere, for students began attending school at different ages. In one case, he found in one particular elementary school how the age difference between the youngest and oldest students in the same grade was more than eight years and six months. This and other discoveries led to his involvement in the debate of the appropriate age to start school. See Kondō Mikio, “Meiji chūki ni okeru shūgaku nenrei no giron ni kansuru ichi kōsatsu” [Study on prohibition of entering school notice for children pre-school age in the middle of the Meiji era], *Nagano-ken tanki daigaku kiyō* 59 (December 2004): 45–54.

29. Mishima, *Nihon kentai*, 3. The German title was *Das Wachstum des Kindes in Japan*.

30. See Adolphe Quételet, *Sur l'homme et le développement de ses facultés, ou Essai de physique sociale* (1835), 2 vols. Henry Pickering Bowditch, physiologist and dean of the Harvard Medical School, founder of the first physiological lab in the United States, taught Charles Sedgwick Mino and G. Stanley Hall, among others.

31. Mishima, *Nihon kentai*, 10.

32. *Ibid.*, 3. In addition to being called a pedophile, other issues involved superstitious parents unwilling to divulge the exact birth date of their child or the unwillingness of girls to undo their tall hairdos and undress before measuring their height and weight.

33. *Ibid.*, 1.

Part III

Potent(ial) Virility: Labor, Migration, and the Military in the Construction of Masculinity

The chapters by Leung, Chiang, and DiMoia explore how labor requirements, military cultures, and demographic policies shaped, and in turn, were shaped by shifting and competing visions of masculinity, influenced by changing medical authorities and legitimacy of colonial powers and postcolonial nation-states. Leung explores the growing number of “weak” male migrant laborers and soldiers (notably Chinese and Japanese) plagued by beriberi/*jiaoqi*/*kakké* increasingly framed as a “deficiency” disease in the early twentieth century. She highlights anxieties and concerns over the supposed “failures” of East Asian masculinity and female fertility in this modern biomedical framing of the disease. The normative physiology of postcolonial Taiwanese men and the involvement of the military in its reproduction, analyzed by Chiang in the Cold War case of “the Chinese Christine,” continued to shape expressions of anxiety over masculinity well into the latter half of the twentieth century. East Asian military culture remains significant for DiMoia’s study of (South) Korean masculinity, where he investigates the role of vasectomy as an integral part of family planning in the late 1960s. South Korean men were called upon to volunteer for this physiological procedure as part of their “duty” to the nation in addition to their military service, yet “continued potency,” as propagated by the state, was an ongoing concern to their masculinity.

Weak Men and Barren Women

Framing Beriberi/*Jiaoqi*/*Kakké* in Modern East Asia,
ca. 1830–1940

Angela Ki Che Leung

Introduction*

Beriberi, a disease “discovered” by Dutch doctors in Batavia in the nineteenth century, was key to the construction of the new “nutritional science” in the early twentieth century.¹ Defined as a potentially fatal nervous degeneration disorder due to the deficiency of vitamin B1 (thiamine), it is still believed to be prevalent in rice-eating regions where the diet is based on polished rice, from which the thiamine-rich seed coat has been removed.² Since its being framed in biomedical terms in the late 1920s, beriberi, curiously translated in East Asia by the names of an ancient disorder, *jiaoqi* 腳氣 in Chinese, and *kakké* in Japanese (both meaning literally “leg-qi,” highlighting the conspicuous symptom of weak legs), indicating recognized kinship between the historical and modern ailments,³ has been studied and analyzed

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1. Christiaan Eijkman (1858–1930) fed chicken with white rice in the East Indies in the late nineteenth century to develop the theory, and British chemist Frederick Hopkins (1861–1947) further elaborated on the chemical composition of vitamins. Both men obtained the Nobel Prize in 1929 for their study on vitamins. See Kenneth Carpenter, *Beriberi, White Rice, and Vitamin B: A Disease, a Cause, and a Cure* (Berkeley: University of California Press, 2000), 102–4.
2. See, for example, the definition of beriberi in *The Bantam Medical Dictionary*, Third Revised Edition, prepared by the editors of Market House Books Ltd. (New York: Bantam Books, 2000), 52: “A nutritional disorder due to deficiency of vitamin B1 (thiamin). It is widespread in rice-eating communities in which the diet is based on polished rice, from which the thiamine-rich seed coat has been removed.”
3. There is occasional confusion about the contemporary use of the Chinese term *jiaoqi*, which is sometimes used erroneously or locally to mean athlete’s foot or gout. We exclude such meanings of the term in this chapter.

mostly in terms of dietetics, especially rice eating, even in historical contexts where polished rice did not exist.⁴

This ultimate biochemical explanation of beriberi as a major milestone in the construction of nutritional science⁵ was in fact juxtaposed on evolving framing processes of beriberi/*jiaoqi*/*kakké* within different medical traditions throughout the colonial period in East Asia, in different languages.⁶ While European scientists were discovering, experimenting, and speculating on what they saw as a new disease in Asia that they finally linked to the consumption of a modern food product, polished white rice, Asian doctors were puzzled by the “reemergence” of an old ailment amply described in classical medical treatises as one caused by the penetration of damp in the body. Colonial governments were concerned with the disease as they saw in it a major threat to economic productivity. As an author of an early report on beriberi in Hong Kong wrote, quoting “an old resident” of the colony: “The prosperity of this Colony largely depends on the sturdy shoulders of the Hong Kong coolie.”⁷ For East Asian society, on the contrary, the noticeable weakening male bodies coined by the Chinese term “sick men of East Asia,”⁸ in crowded, industrializing, and stressful urban centers infested with “modern” diseases such as tuberculosis, syphilis, and beriberi, accounted for its inferiority compared to the West. The modern Asian beriberi/*jiaoqi*/*kakké* epidemic fully encapsulated the anxiety on this “observable” diminished

4. Notably an article by Lu Gwei-Djen and Joseph Needham in 1951 in *Isis* 42 (1951): 13–20, “A Contribution to the History of Chinese Dietetics,” based on a chapter of Lu’s PhD dissertation in chemistry on beriberi submitted in 1939. The recent work on Japanese *kakké* by Alexander Bay also accepts such a kinship with beriberi. See his *Beriberi in Modern Japan: The Making of a National Disease* (Rochester, NY: University of Rochester Press, 2012).
5. Michael Worboys, “The Discovery of Colonial Malnutrition between the Wars,” in *Imperial Medicine and Indigenous Societies*, ed. David Arnold (Manchester: Manchester University Press 1988), 208–25.
6. Beriberi is an excellent example of the futility of writing the “biography” of a disease, as eloquently argued by Roger Cooter in *Writing History in the Age of Biomedicine* (with Claudia Stein, New Haven: Yale University Press, 2013), chapter 7. It is impossible to do retrospective diagnosis to verify claimed cases of beriberi of which East Asian and European experts had very different conceptual tools to formulate explanations at different historical moments. The Asian epidemic emerged as mysteriously as it disappeared in the twentieth century. On the contrary, the study of the different framing processes of beriberi/*jiaoqi*/*kakké* in this period, an approach proposed by Charles Rosenberg (“Disease in History: Frames and Framers,” *Milbank Quarterly* 67[1] [1989]: 1–15) reveals how the epidemic became an actor in a “complex social situation” (10), affecting personal lifestyle, therapeutic methods, and the design of public health strategies in East Asia.
7. R. M. Gibson, “Beriberi in Hong Kong, with Special Reference to the Records of the Alice Memorial and Nethersole Hospitals and with Notes on Two Years’ Experience of the Disease,” manuscript, March 16, 1900, p. 4.
8. For the formulation of this expression, see Yang Ruisong, “Xiangxiang minzu chiru: Jindai Zhongguo sixiang wenhua shang di ‘Dongya bingfu’” [Imagined national humiliation: “Sick men of East Asia” in modern Chinese thought and culture], *Guoli Zhengzhi Daxue lishi xuebao* 23 (May 2005): 1–44.

masculinity linked especially to the military,⁹ a phenomenon discussed in depth, but from another perspective, in John DiMoia's and Howard Chiang's chapters in this volume.

Doctors of competing medical traditions in colonial Asia, despite differences in approach and premises, agreed that beriberi's main victims were Asian men even though this gender difference could not be fully accounted for in physiological terms. The social framing of the epidemic thus became important for making the ailment comprehensible. Conflicting explanations proposed by experts from different medical traditions made the beriberi/*jiaoqi/kakké* phenomenon one of the most puzzling and elusive epidemic experiences in modern East Asia while they at the same time unraveled layers of individual and collective anxieties in a rapidly changing world, articulated most effectively in terms of the health of the gendered body.

The Emerging Asian Pandemic: A Male Disease

It was in modern institutions with high concentrations of young men that Western medical doctors working in colonial Asia first noticed this unfamiliar "Asian" disease, in the mid-nineteenth century. The British doctor Malcomson published one of the first books on beriberi in 1835 based on his observations on the impact of the disease on native troops in Northern Circars in the late 1820s.¹⁰ Later in the 1860s, Dutch scientists, including C. Eijkman, began systematic study of beriberi in Batavia, with the British and the Americans getting more involved in research from the beginning of the twentieth century.¹¹ The first regional alert of a beriberi epidemic outbreak took place in 1860 in Sungaiselan, where one-eighth of the miners were reported to be sick and one-third of the sick died. In the following year, the disease caused 700 deaths in Belitung. In the 1890s in Bangka hundreds of workers died each year of the disease that accounted for 5 percent death rate of the total force of about 12,000 workers, many of them Chinese.¹² The situation continued to be serious in the early twentieth century in Java. The

9. The close link between beriberi and the military in East Asia is best represented by the Japan case; see Alexander Bay, "Beriberi, Military Medicine, and Medical Authority in Prewar Japan," *Japan Review* 20 (2008): 111–56.

10. He noted that in 1827, twenty-eight out of eighty-eight deaths in native troops, and twenty out of fifty-two deaths in 1830 were due to beriberi, see J. G. Malcomson, *A Practical Essay on the History and Treatment of Beriberi* (Madras: Vepery Mission Press, 1835), 11–26.

11. Carpenter, *Beriberi, White Rice, and Vitamin B*, chapters 1, 3, 5, and 6. Duan Simmons, "Beriberi, or the 'Kakké' of Japan," *China Imperial Maritime Customs Medical Reports*, Special Series no. 2, 19th issue, for the half-year ended March 31, 1880 (Shanghai: Statistical Department of the Inspectorate General), 41.

12. Mary F. S. Heidhues, *Bangka Tin and Mentok Pepper: Chinese Settlement on an Indonesian Island* (Singapore: Institute of Southeast Asian Studies, 1992), 61–65.

number of cases treated between 1901 and 1924 fluctuated between 840 and 7,719.¹³

Similar epidemics among Chinese tin miners were also observed in the Federated Malay States at the turn of the century.¹⁴ By 1905, beriberi was reported to be the most prevailing disease in Malaya, representing one-fifth of all hospital cases, with 2,215 cases and 330 deaths (whereas there were 2,109 malaria cases with 173 deaths).¹⁵ Leonard Braddon's (state surgeon of the Federated Malay States) famous report on the disease in 1907 in the Malay States showed that the epidemic was particularly prevalent among the Chinese male adult population with a case incidence of 40/1,000 in 1901.¹⁶ Reports on other Southeast Asian countries, including the Philippines, Siam, and French Indochina, all recorded rapidly increasing numbers of beriberi patients.¹⁷ Victor Heiser, director of health for the Philippine Islands in the 1910s, estimated in 1913 that there were 100,000 deaths in Asia per year due to beriberi.¹⁸

In Japan, despite consistent attention given to *kakké* in *kampō* texts back in the eighteenth century,¹⁹ the ailment became globally visible only in the late nineteenth century. The American doctor Duane Simmons was one of the first Western doctors who observed the epidemic in Japan in the 1870s and wrote a report in 1880 based on his observation in the Government

13. C. D. Langen, "The International Control of Beriberi," *Far Eastern Association of Tropical Medicine (FEATM) Transactions of 6th Biennial Congress*, Tokyo, 1925, 70–71.
14. Hamilton Wright, "An Enquiry into the Etiology and Pathology of Beri-Beri," *Journal of Tropical Medicine* (June 1, 1905): 161–62; a more complete study of the epidemic in the Malay States is Herbert Durham's "Notes on Beriberi in the Malay Peninsula and on Christmas Island (Indian Ocean)," *Journal of Hygiene* (1904): 112–55.
15. "Malay States Medical Report for the Year 1905," *Journal of Tropical Medicine and Hygiene*, January 1, 1907, p. 9.
16. Leonard Braddon, *The Cause and Prevention of Beri-Beri* (London and New York: Rebman, 1907), 3–4.
17. Edward Vedder, captain medical corps of the US Army in Manila wrote a report in 1913 that between 1895 and 1902, there were 57,025 admissions of beriberi patients in thirty-one district hospitals, of whom 8,990 died, see E. Vedder, *Beriberi* (New York: William and Wood, 1913), 17. Siam was another epidemic region. The principle medical officer reported in 1913 that of a total of 500 conscripts in the Police School at Bangkok, 444 developed beriberi within two months and were sent home on a month's leave. He also observed an increasing epidemic trend of beriberi from 1913 to 1929, with 852 recorded cases in 1913 and 3,871 in 1929, see H. C. Highet, "The Sequelae of Beriberi," *Far Eastern Association of Tropical Medicine (FEATM), Comptes rendus de travaux du 3e congrès biennal tenu à Saigon 1913*, 255. Gaide (general surgeon of colonial troops in Indochina) and Bodet (deputy general inspector), "Le beriberi en Indochine," *Far Eastern Association of Tropical Medicine (FEATM) Transactions of the 8th Congress held in Siam, 1930*, 104.
18. Victor Heiser, "Beri-beri. An Additional Experience at Culion," *Far Eastern Association of Tropical Medicine (FEATM) Comptes rendus de travaux du 3e congrès biennal tenu à Saigon 1913*, 371.
19. See my chapter, "Japanese Medical Texts in Chinese on Kakké in the Tokugawa and Early Meiji Periods," in *Antiquarianism, Language, and Medical Philology*, ed. Benjamin A. Elman (Leiden: Brill, 2015), 163–85.

Hospital in Yokohama and also in private and consulting native practices in both Yokohama and Tokyo. He noted 660 conscripts affected with beriberi were admitted to military and naval hospitals in Tokyo in 1875, representing 3.8 percent of the whole force of 17,000, not counting those victims whose symptoms were milder and not sent to the hospital.²⁰ The increasingly alarming epidemic was made known to the world after the publication of the medical report on the navy in 1901 on the First Sino-Japanese War of 1894–1895 showing that, in the 1880s, almost one-third of the navy was infected with the disease. The eventual control of the epidemic by the implementation of diet change narrated in the report was an exemplary epidemiological study in the up-and-coming Western biochemical tradition.²¹

In China, the modern *jiaoqi* epidemic was first revealed in a monograph on the ailment in 1887 by a Cantonese doctor working in British Hong Kong, Zeng Chaoran 曾超然. This work, entitled *Jiaoqi chuyan* 腳氣芻言 (Preliminary words on *jiaoqi*) was a recognized medical work in modern China,²² and remarkable in situating the epidemic, still framed largely in classical terms, in the modern and global context of Asia. It was based on notes of the author's clinical practice during his tenure as in-house doctor and teacher at the charitable Tung Wah Hospital, opened in 1872, that provided Chinese medical treatment for the Chinese population in the British colony.²³ This work indicates an emerging *jiaoqi* epidemic since probably the 1870s among Chinese men living or transiting in Hong Kong that British doctors were not aware of. Prominent figures in tropical medicine such as Patrick Manson (1844–1922) and his protégé James Cantlie (1851–1926) working in Hong Kong did not begin to observe actual beriberi patients until 1887, when Alice Memorial Hospital, the first Western charitable hospital for the Chinese, was established.²⁴ In fact, British bacteriologists in Hong Kong, having little contact with Chinese patients, were totally misinformed about the situation and claimed in 1905 that the disease was not endemic in Hong Kong or in China, only to contradict themselves two years later when statistics from

20. Simmons, "Beriberi, or the 'Kakké' of Japan," 41, 70.

21. Baron Saneyoshi and Shigemichi Suzuki, *The Surgical and Medical History of the Naval War between Japan and China during 1894–1895* (Tokyo: Tokio Print, 1901), 450–78, on *kakké*.

22. This book was reedited many times subsequently, by the Cantonese army in the last years of the Qing dynasty and in the Republican period. Republican medical journals also reproduced and commented on large parts of it. Xie Guan considered the book the most important in the modern period on *jiaoqi* (see note 38).

23. Encouraged by the British colonial government, the hospital was established and financed by Chinese business elites to take care of Chinese inhabitants, who distrusted biomedicine practiced in the Civil Hospital. On its history, see Elizabeth Sinn, *Power and Charity: Chinese Merchant Elite in Colonial Hong Kong* (Hong Kong: Oxford University Press, 1989).

24. Patrick Manson said in 1888, "It was not until last year, when the Alice Memorial Hospital was opened, that the general medical practitioners of Hong Kong had a proper opportunity to see and study native diseases and that we began to learn a little definite about our endemic Beri-beri." See R. M. Gibson, "Beriberi in Hong Kong," 2.

local Chinese hospitals became accessible to them.²⁵ According to such data, from 1897 to 1906 the number of beriberi patients increased from 173 (with 102 deaths) to 517 (with 257 deaths).²⁶ The situation deteriorated with time up to the 1920s: while 562 and 736 deaths were recorded in 1907 and 1908, the numbers peaked to 1,744 and 1,192 in 1925 and 1926 for the whole of Hong Kong, amounting to about 5 percent of the colony's total deaths recorded.²⁷ The mortality in a Chinese hospital in Canton appeared to be lower: 76 of 701 (implying an annual figure of more than 1,000) inpatients died in the second half of year 1929, but this mortality was second only to tuberculosis.²⁸

Chinese, Japanese *kampō*, and Western medical experts of the period all took note of the overwhelming proportion of male patients in this regional pandemic. Duane Simmons, who wrote for the China Imperial Maritime Customs Service, observed in 1880 that, in Japan, the few women who had the disease were pregnant.²⁹ Leonard Braddon in Malaysia, Gaide and Bodet, military surgeons in Indochina, C. Langer, a German doctor, and Noel Davis, assistant health officer in Shanghai, observing the beriberi epidemics respectively in Malaya, Indochina, Java, and Shanghai, also stressed that patients were predominantly young, able-bodied, and male.³⁰ The first British colonial doctors reporting on beriberi in Hong Kong's Alice Memorial Hospital provided more precise information on the unusual male/female ratio: the percentage of male to female beriberi cases was 95.72 percent to 4.28 percent (of a total of 1,476 patients in 1888–1889), while the usual proportion of male to female patients in attendance was 4 to 1.³¹ A later survey in Shanghai in 1934 showed a similarly lopsided ratio of 8 to 1.³² In other

25. William Hunter, "The Incidence of Disease in Hong Kong," *Journal of Tropical Medicine* (May 1, 1905): 130; Hunter, "The Prevalence of Beriberi in Hong Kong," *Journal of Tropical Medicine and Hygiene* 10(16) (August 5, 1907): 265–71.

26. Meanwhile, mortality of malaria decreased from 571 (191 deaths) to 248 (96 deaths) according to the "Report of the Inspecting Medical Officer to the Tung Wah Hospital, 1906," sessional paper (Hong Kong, 1907), 463. The medical officer was Dr. Thomson.

27. "Vital statistics," *Hong Kong Administrative Report 1908* (Hong Kong: Government Printer, 1908), 12; "Public Health," *Hong Kong Administrative Report 1927* (Hong Kong: Government Printer, 1927), 22. These figures confirmed those given to Dr. Edward Vedder of the US Army in the Philippines, see Vedder, *Beriberi*, 13–16. These works provide the most comprehensive epidemiological situation of beriberi in Asia.

28. *Fangbian Yiyuan tongji huikan* [Collection of statistics of the Expediency Hospital], 1929, section "yī'an." That year tuberculosis claimed 117 lives of the 320 inpatients.

29. Simmons, "Beriberi, or the 'Kakké' of Japan," 43.

30. Braddon, *Cause and Prevention of Beri-Beri*, 256, 278; Gaide and Bodet, "Le beriberi en Indochine"; Langer, "International Control of Beriberi"; Noel Davis, "Observations on Beriberi in Shanghai," *Far Eastern Association of Tropical Medicine (FEATM) Transactions of the 2nd Biennial Congress, Hong Kong, 1912*, 23–30. He observed the cases in the prison (with 33.3 percent mortality), police recruits, a tramway company, where only men were observed, and a charitable organization for young girls.

31. Gibson, "Beriberi in Hong Kong," 18.

32. B. S. Platt and S. Y. Gin, "Some Observations on a Preliminary Study of Beriberi in Shanghai," *Far Eastern Association of Tropical Medicine (FEATM) Transactions of the 9th Congress, Nanking, China, October 2–8, 1934* (Nanking: National Health Administration,

words, even considering the sociological factors accounting for the higher number of male patients in hospitals observed for any disease, the male/female proportion for beriberi in this period was still unusually high. At the same time, medical experts of the different traditions also noted the relation between the pandemic and a rapidly urbanizing, industrializing, and globalizing Asia.

Jiaoqi/Kakké Modern: A New Old Ailment?

Kampō doctors of Tokugawa Japan were probably the first to consciously explain *kakké* in the context of a profoundly transformed human ecology brought about by a changing political economy. Despite the claimed affinity of the modern Japanese epidemic with early medieval *jiaoqi* recorded in Chinese medical classics, *kakké* was considered not exactly the same as *jiaoqi* but a “modern” version of the old disease. Taki Motokata 多紀元堅 (1795–1857) stressed in 1853 the mutative character of *kakké* by highlighting the possibility that, just as modern *kakké* was different from what it was in the past, *kakké* in the future might very well be different again.³³ The elusiveness of *kakké* was further elaborated by Nakano Yasuaki 淺田昌春 (1813–1894) and Asada Sōhaku 淺田惟常, director of the Hakusai byōin in 1878, who published the *General Treatise on Kakké* (*Kakké gairon* 脚氣概論) in 1879, where they developed the idea that *kakké* changed with time and place:

In our country, the disease had existed for a thousand years. . . . In later time, when the four seas were in great turmoil with incessant warfare, we rarely heard of the disease again. In recent years, [this illness] re-emerges. The clinical patterns are similar to those described in Jin/Tang medical classics. The analyses are also similar. This is due to changing time and customs. We are in a different era.³⁴

The authors seemed to imply here that *kakké* was a disease of prosperity and peace as it disappeared during wars and political turmoil and reappeared in modern Japan just as real *jiaoqi* was endemic in prosperous Tang China. Moreover, these *kampō* doctors highlighted the fact that the *kakké* in modern times was characterized by its prevalence in the warmer seasons between summer and autumn, affecting mostly the young and able-bodied male, features that were not noted in medieval Chinese classics on *jiaoqi*.³⁵

1935), 407–8. This study was based on the fifty thousand outpatients of the Lester Chinese Hospital.

33. Taki Motokata, *Zatsubyō Kōyō* [Broad essentials on various diseases], 1853 (Beijing: Renmin weisheng chubanshe, 1983), 120.

34. Nakano Yasuaki and Asada Sōhaku, *Kakké gairon* [General treatise on *kakké*], 1879, Huanghan yixue congshu 1936. (Shanghai: Zhongyi xueyuan chubanshe, 1993), 5.

35. *Ibid.*, 5–6.

The connection between *kakké* and Japanese modern urbanity was spelled out most strongly by Imamura Ryō 今村亮 in his 1878 work *Kakké shinron* 脚氣新論 (A new discussion on *kakké*) where he explained the notion of “wind-toxin,” *fūdoku* 風毒, by evoking a new element: toxic air buried beneath urban ground:

Wherever the land is lowly and damp, with dense populations and overwhelming human activities, where people do not even have enough place to stand on, the *ki* of the ground, not being able to dissipate freely, would cause this disease. Why then does it emerge only in the spring and summer? It is because [during this season] the *ki* of the ground is on the rise and as it gets blocked [by human masses and activities on the ground], the obstructed steaming process would produce a toxic *ki*.

In this toxic urban environment, he thought, “[d]iseases are complex, their changes are multiple. There are modern diseases that did not exist in the past, such as cholera. And those that became more prominent than in the past, such as *kakké*.”³⁶

Chinese doctors’ writing on *jiaoqi* in the nineteenth and early twentieth centuries did not articulate as precisely as *kampō* authors on the modern characteristics of the ailment, but they did not fail to explain the disease in a changing global context. Chinese doctors were sensitive to the living environment of their patients, mostly male migrants working in coastal metropolises such as Shanghai and Hong Kong, or in Southeast Asia.³⁷ Xie Guan 謝觀 (1885–1950), an influential doctor in the Shanghai district, like many of his contemporaries, was convinced that the “reemergence” of this old disease was in fact the “reintroduction” of the ailment to China from Southeast Asia.³⁸ This point was statistically supported by a 1928 list of patients to be repatriated to Canton showing that more than one-third were transients having stayed in Hong Kong for less than two years, many from Southeast Asia.³⁹ While Hong Kong was already considered a place with bad “water and soil,” Southeast Asia was worse. A Chinese doctor residing in Hong

36. Imamura Ryō, *Kakké shinron* [New treatise on *kakké*] (Edo: Keigyōkan edition, 1878), preface, 2a, 3a.

37. The above-mentioned Zeng Chaoran of the Hong Kong Tung Wah Hospital noted the prevalence of the disease in South China and Southeast Asia in the 1880s. See his *Jiaoqi chuyan*, 11b–13a; Ding Fubao, the famous popular medical writer at the turn of the century highlighted the epidemic in Japan, Shanghai, and the Guangdong regions in his 1910 edited volume on beriberi. See his 1910 work, *Jiaoqi bing zhi yuanyin ji liaofa* [Causes and treatment of the *jiaoqi* ailment] (Shanghai: Wenming shuju, 1910), preface, 3.

38. Xie Guan, *Zhongguo yixue yuanliu lun* [On the root of Chinese medicine] (Shanghai: Chengzhai yishe, 1935), 47. Xie, commenting on Zeng Chaoran’s 1887 book, stated that the disease disappeared in China after the Song dynasty and was “reintroduced” in China from overseas, a view already implied in Zeng’s book.

39. Donghua Hospital Archives (DHA). Letter from the Donghua Hospital to the Colony’s Medical Officer, February 16, 1933, 432–38. Out of seventy-five listed, twenty-nine were either passing through Hong Kong or were residing in Hong Kong for less than two years.

Kong refused to take up a position offered by a Kuala Lumpur hospital in 1920 because, as he explained in the letter to the hospital, “The ‘water and soil’ of the Southern Ocean [Malaya] is not as stable as that in Hong Kong[:] most [who go to Malaya] will develop *jiaoqi* and bone pain.”⁴⁰ This concern underlies the great anxiety vividly expressed in popular songs and ballads lamenting Chinese migrants’ wretched lives in Southeast Asia.⁴¹ The sick Chinese migrant worker at that time usually sought repatriation—that is, leaving the place where he fell ill—as a preferred therapeutic move.

The repatriation of sick Chinese migrants in the colonial period was thus not simply a colonial policy to get rid of nonproductive workers, but a medical strategy based on the belief shared by Europeans, Japanese, and Chinese of the time that the patient should leave the location where he fell sick. While the Japanese therapeutic strategy of *tenchi* 轉地 (to change site) meant moving patients to higher, dryer ground, the Chinese version, sometimes expressed as *zhuan shuitu* 轉水土 (to change “water and soil”) implied being repatriated to their native place. Four patients of the ten cases described by Zeng in his 1887 book returned to their native towns in Guangdong in the late nineteenth century upon the recommendation of the doctor. Beginning no later than 1903–1904 and until the early 1940s, the Tung Wah Hospital in Hong Kong where Zeng had worked began to organize regular shipments of repatriated migrants sick with *jiaoqi* from Southeast Asia, Latin America and Hong Kong itself to Canton to be treated in charitable hospitals, the most important of which was the Fangbian Hospital 方便醫院 (Expediency Hospital, established in 1899).⁴² News on these public health strategies derived from the modern understanding of *jiaoqi* in Chinese East Asia, was frequently covered by public printed media in the early twentieth century.⁴³

40. DHA, 1919–1920 Waijie laihan [Letters received], 130-B19/20-214, pp.172–73, Doctor Yu Baochu to the Tung Wah Hospital refusing to take the position in Tongshan Hospital in Kuala Lumpur as arranged by the two hospitals.

41. I would like to thank Wilt Idema for drawing my attention to a genre of modern Hakka and Minnanese Songs and Ballads about Overseas Migration (*Guofan ge* 過番歌) from late imperial and early Republican China that highlight the dread of catching all kinds of strange diseases in the southern seas.

42. DHA, Minutes of the Board Meeting of the Tung Wah Hospital on January 26, 1904, recorded board members’ appreciation of sending *jiaoqi* patients back to Guangdong as they thought that the sick would have a better chance of cure or survival, notably the Guangji and Fangbian Hospitals. Patients were first shipped to Canton via the West River and, later in the twentieth century, taken by the Canton-Kowloon train. The Tung Wah Hospital, as a major charitable organization for Hong Kong and overseas Chinese since 1871, paid the Fangbian Hospital for accommodating patients repatriated by the Tung Wah. See also *Xianggang Donghua Sanyuan bainian shilüe* [One hundred years of history of the three Tung Wah Hospitals in Hong Kong] (Hong Kong: Tung Wah Hospital, 1970), 58.

43. Some Shanghai medical journals reported such operations as early as the 1910s, e.g., *Medical World* (*Yixue shijie* 醫學世界), no. 22, 1913, p. 62, reported the shipment of forty-seven patients from Tung Wah Hospital to the Fangbian Hospital in Canton. A major Chinese newspaper in Hong Kong, *Huazi ribao* 華字日報, for example, reported in 1928 that “[s]ome of the immigrants in Hong Kong could not adjust to the local ‘water and soil’ (*shuitu* 水土)

At the same time, white rice was being proposed by Western scientists as the main culprit of this modern Asian disease. Being the traditional Asian staple transformed by modern technology and spread by global trade that accentuated rural-urban dichotomy, rice was a natural suspect when the disease was linked to a bad food.⁴⁴ Dr. C. D. de Langen of the Medical School in Batavia noted in his article for the 1925 Congress of the Far Eastern Association of Tropical Medicine (FEATM) that beriberi there “rarely occurs in the interior, but is chiefly confined to the large towns, the plantations, industrial centres, prisons[,] etc.” He explained that as only rice for export from British India, French Saigon, and Siam in the region was mechanically and thoroughly milled for easier transportation, storage, and good market value, it was natural that the epidemic mainly occurred in urbanized, coastal Java where such rice was consumed.⁴⁵ Similarly, the *jiaoqi* and *kakké* epidemics in China and Japan were reported by Chinese and Japanese experts to concentrate first in Westernized coastal metropolises such as Hong Kong, Canton, Shanghai, Tokyo, Kyoto, and Osaka from the nineteenth century onward. With the improvement in transportation that facilitated human migration, circulation of goods, and colonization, the disease was described to be spreading inland and to places where it was believed to have been nonexistent, such as Taiwan, Korea, Australia, and even Manchuria, in the twentieth century.⁴⁶ The movement of beriberi / *jiaoqi* / *kakké* simply followed the trajectories of polished rice as a modern commodity.

By the late 1920s, Chinese doctors increasingly internalized the biochemical framing of *jiaoqi* to articulate the difficulty of living in a modern world. Jiang Zhenxun 姜振勛, a doctor practicing in Shanghai in the 1920s and 1930s and a popular medical writer, took up the new vitamin B1 theory and concluded that “the prevalence of *jiaoqi* in recent years is a result of progress in material civilization,” meaning fine food processing with modern engineering. However, the way to prevent the disease, he continued, was not to give up modern civilization, as this was neither feasible nor reasonable, but to modify the lifestyle so that material progress would not go against the body. He did not prescribe giving up consuming white rice but picked up recommendations from classical medical and life-nourishing texts such as moderation in sex, work, and diet, and sanitary living environments. Like

and develop *jiaoqi*. Recently the ship Daxing travelling between the colony and Wuzhou had taken more than ten patients” (June 27, 1928). The destination of the passengers was normally Canton via Wuzhou.

44. On this problem in Canton, see Seung-Joon Lee’s recent study, “Taste in Numbers: Science and the Food Problem in Republican Guangzhou, 1927–1937,” *Twentieth-Century China* 35(2) (April 2010): 81–105.

45. Langen, “International Control of Beriberi,” 69–71.

46. This narrative of the spread of beriberi was quite commonly given in popular medical periodicals in the 1930s in China. For example, Chi Zheng, “*Jiaoqi bing*” [The *jiaoqi* ailment], *Minzong yibao* (1931): 12, especially p. 13.

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