

BOOK REVIEW
Mary Augusta Brazelton,
*Mass Vaccination:
Citizens' Bodies and State Power in Modern China.*
(Ithaca: Cornell University Press, 2019)

Sarah Mellors, *Missouri State University*

At a time when, at least in the United States, mandatory immunizations are increasingly controversial, Mary Augusta Brazelton's monograph, *Mass Vaccination: Citizens' Bodies and State Power in Modern China*, is a timely and welcome contribution to studies of the history of medicine. Brazelton asks, through what process did China evolve from the "Sick Man of Asia" in the early twentieth century to a nation that could boast having eradicated smallpox in 1960 to a purveyor of "medical diplomacy" to developing countries in the 1960s and 1970s? Tracing the history of mass vaccination in China from its origins during the Republican Period, specifically the Second Sino-Japanese War, to the start of the post-Mao reform era, Brazelton argues that "mass immunization programs made vaccination a cornerstone of Chinese public health and China a site of consummate biopower, or power over life" (1). Highlighting historical continuities between the Republican and Communist eras, Brazelton illustrates the ways in which the immunological successes of the early Mao period—vaccinating more than 500 million people against smallpox in the 1950s—built on biomedical research and institutions developed under the Nationalists. In the long term, China's post-socialist regimes have been so successful in exerting power over life because the disciplinary mechanisms they rely on were refined during the Republican and Mao eras. Drawing on a rich assortment of archival materials, scientific publications, and state propaganda, *Mass Vaccination* contributes to a growing body of literature situating medicine and science in modern China within broader temporal and geographic frameworks.¹

The first five chapters of the book focus on China's emerging microbiological research community and the challenges it encountered during the Second Sino-Japanese War. Chapter 1 introduces the state of microbiology in China in the 1920s and 1930s. Far from being insular, Chinese doctors and biologists, most of whom had obtained their training abroad, played an important role in the global research community. They developed a vocabulary to translate novel microbiological concepts into Chinese. With the Japanese invasion in 1937, researchers based at elite institutions in Beijing, Nanjing, and Shanghai were forced to retreat to Kunming in Yunnan province, where they sought to continue their research in less than ideal conditions. Despite facing resource scarcity, impeded supply networks, and endemic disease, this particular environment would lead to an organized emphasis on mass

vaccination. Chapter 2 maps out the contours of Yunnan's medical terrain. In this diverse borderland, foreign powers and warlords competed for power and sought to use epidemic control to establish influence. Yunnan was home to myriad medical traditions, including at least two interwoven practices to eliminate smallpox: traditional variolation—grinding up smallpox scabs (attenuated smallpox) and inhaling the resulting powder—and Jennerian vaccination—which utilized cowpox instead of smallpox to achieve immunity through injection. When the so-called refugee scientists arrived, Yunnan already had a medical infrastructure in place that promoted vaccination against smallpox, a system that the scientists were able to build on. Yunnan's medical infrastructure, then, bound together French, British, and Chinese doctors, warlords, and overlapping medical traditions.

Chapters 3 through 5 continue the narrative of how vaccination became a national imperative. In Chapter 3, Brazelton argues that vaccines forged critical links connecting biomedical networks domestically and abroad, especially through the work of the League of Nations and other transnational bodies. During this period, important public health units were established in major cities in the Southwest and a variety of groups sought to vaccinate local populations in China's hinterlands. Despite the emergence of increasingly coercive strategies for immunization, some urban residents welcomed vaccines as a way to protect themselves from epidemics amid Japanese threats of biological warfare and large-scale national migrations. Chapter 4 on mass immunization in wartime Kunming asks why the biomedical community chose vaccination versus other responses to the threat of epidemics. For health officials, vaccination served two purposes: it was both a hygienic measure to prevent illness as well as a contribution to the war effort, providing a strategic defense against biological weapons. Mass vaccination in response to an outbreak of cholera in 1942 represented new and more centralized, though still precarious, state efforts to enact biological protections against diseases. Chapter 5 demonstrates that following the end of World War II and the return of the refugee researchers to eastern China, the cities and hinterlands became even more integrated through their shared public health networks. Institutions and research developed before and during the war continued to play key roles in public health programs during the civil war.

Chapters 6 and 7 examine vaccination from the establishment of the PRC to 1980. Shortly after its victory over the Nationalists, the Communist Party launched the 1952 Patriotic Health Campaign, and with it, national vaccination movements. As chapter 6 shows, these programs were intended to counter the alleged threat of American bacteriological weapons in the Korean War and to signal the new regime's commitment to modern science. The result was a significant decline in mortality due to infectious disease. Consonant with broader efforts to deepen the state's reach, vaccination records became more elaborate and detailed, as growing tools of accountability and surveillance. Taking Kunming as a case study, Brazelton illustrates how vaccination status became integrated with the residence permit system, and therefore, grounds for biological citizenship, a practice piloted during the Second Sino-Japanese War. In what is arguably the book's most innovative chapter, chapter 7, Brazelton examines the role of mass immunization in China's medical diplomacy in the 1960s and 1970s. By promoting its own medical system as a paradigm for modern healthcare, China not only gained authority on the international stage but could also mobilize its laudable smallpox eradication record as evidence of superiority over Taiwan in the context of the Cold War. Indeed, by providing medical aid and resources to countries in the non-aligned world, China marketed itself as a leader in primary healthcare.

Several strengths of *Mass Vaccination* are particularly worthy of note. For one, the book shifts effortlessly between different scales. Balancing circumstances at the global, national, provincial, and institutional levels, Brazelton situates China within regional and global biomedical networks while still attending to local circumstances. In addition, rather than

¹ One particularly fruitful area of research has sought to historicize the evolving categories of "Chinese" and "Western" medicine in modern China, an exercise that requires transcending the 1949 historical divide. For relatively recent scholarship on this topic, see: Kim Taylor, *Chinese Medicine in Early Communist China, 1945-1963: A Medicine of Revolution* (New York: Routledge, 2005); Sean Hsiang-lin Lei, *Neither Donkey nor Horse: Medicine in the Struggle over China's Modernity* (Chicago: University of Chicago Press, 2014);

treating China as a closed entity, Brazelton's China is porous and deeply engaged with neighboring polities and indigenous medical traditions. Finally, Brazelton takes pains to address not only the perspectives of elite scientists and organization leaders but also, where possible, grassroots attitudes toward heavy-handed vaccination initiatives.

This leads me to a few questions inspired by a close reading of *Mass Vaccination*. Although Jennerian vaccination is the standard form of immunization in China today, I wonder if communities in China's borderlands still practice traditional variolation or other forms of immunity-related medical pluralism. If these practices still exist, what does that suggest about the state's ability to dictate the parameters of life? Thinking more historically, how did perceived ethnic differences shape state medical initiatives and their local reception, particularly during the trial period in Southwest China? While racial tensions are addressed in the context of foreign doctors working in Yunnan, I am curious as to what other racially-inflected discourses emerged in the context of mass vaccination.

In summary, *Mass Vaccination* makes valuable contributions to a number of different fields, and the author seamlessly integrates these disparate literatures into one cohesive narrative. Located at the nexus of the history of science and medicine, modern Chinese history, and the history of global health, this meticulously-researched book is essential reading for scholars in all of these fields.

Bridie Andrews, *The Making of Modern Chinese Medicine, 1850-1960* (Vancouver: UBC Press, 2014). For scholarship that critically re-evaluates the significance of Mao-era science and its impact on subsequent policies, see: Sigrid Schmalzer, *Red Revolution, Green Revolution: Scientific Farming and Socialist China* (Chicago: University of Chicago Press, 2016); Miriam Gross, *Farewell to the God of Plague: Chairman Mao's Campaign to Deworm China* (Berkeley: University of California Press, 2016).

Response

Mary Augusta Brazelton, *University of Cambridge*

It is a fortunate and humbling turn of events to have a reader as careful, intelligent, and generous as Sarah Mellors has been in reviewing my book. I would like to thank her and Yidi Wu, who has been very patient in organizing this dialogue and making the *PRC History Review* a critical venue for discussions of new scholarship in the history of the People's Republic of China.

I write this response as China faces one of the greatest epidemiological threats in recent memory, certainly since the SARS crisis of 2003. A coronavirus has spread across the nation, and beyond its borders, from the city of Wuhan during the Lunar New Year. Much of Hubei province is now under quarantine. The forceful response of the national government, and sharp rebukes of the Wuhan municipal authorities' conduct, have lent themselves to readings of epidemic management as a question of maintaining state and Party authority.¹ It is particularly telling that the crisis has articulated a conflict over epidemic control between the local and the national. As Mellors' review rightly highlights, these changing scales of health administration constitute one important dimension of the dynamics of medical power traced in *Mass Vaccination*. I am gratified that she found the transitions between local, regional and national scales to work in my book, because it was a major concern for me in my research and writing, especially so with the chapters on post-1949 history.

On to the incisive questions that Mellors raises. Firstly: did traditional variolation linger into the present day in China? Although there is scant evidence for the practice in recent decades, 130 cases in which traditional practices of variolation resulted in the contraction of smallpox occurred between 1962 and 1965 in Shanxi province and Inner Mongolia Autonomous Region, facts which were only investigated at a national level in 1985. These cases in remote northern regions were the consequence of the Great Leap Forward and subsequent famine, which lasted until 1962. Because these events disrupted regular immunization work against smallpox, especially in rural areas far from centers of state power, residents sought out traditional methods of variolation (using live smallpox virus rather than cowpox, as Jennerian vaccination does) to protect their children against the disease.²

What import, Mellors asks, does the endurance of such practices carry for "the state's capacity to dictate the parameters of life?" In a sense, those who sought variolation were simply following a key tenet of public health in the Maoist era: combining Chinese and western medicine. As Chang Chia-feng has shown, within the framework of Chinese medical traditions, variolation provided a means of safely dispersing fetal toxins (*taidu* 胎毒) that had been passed from parents to children and which expressed themselves in the form of smallpox and other skin ulcerations.³ Indeed, the concept of *taidu* and its dispersal

continues to inform pediatric medicine in some contemporary formulations of TCM (Traditional Chinese Medicine).⁴ More telling, however, is the fact that the variolators could offer their services at all. The fact that variolation used live smallpox virus was the source of both its power and its danger. To prepare the necessary lymph of ground-up smallpox scabs with human milk, it was necessary to procure a source of fresh virus: in Shanxi, variolators' regular inoculation of their own families produced scabs that were then preserved using a variety of methods, ranging from immersion in honey to insertion in dried and deseeded dates, insertion in feather quills, among various other means.⁵

In some ways, these episodes indicate the limits of bio-political reach in China. As the epidemiologists studying these incidents in 1988 realized, not only had the smallpox virus survived in the remote peripheries of China, it had also been propagated regularly via variolation despite the best efforts of vaccination programs. Although local health administrations learned of these cases when they occurred, they did not report them to regional or national organizations. Yet local administrations subsequently prohibited variolators from further practice, confiscated all their lymph and equipment, quarantined smallpox cases, and conducted mass smallpox vaccination campaigns in affected areas. (This we are told by national health administrators who, it is worth remembering, always have their own agendas in promoting narratives of the swift control of epidemics within their borders.)⁶ Perhaps more significantly, these cases did ultimately come to public light. It took about twenty years, but after the Maoist period came to an end epidemiologists affiliated with China's Academy of Military Medical Sciences eventually tracked down and recorded the variolators' stories. Their publication suggests that the assertion of power over life by the Chinese state has been gradual but nonetheless ascendant.

A second major question of Mellors, concerning ethnic differences and how they might have shaped state medical initiatives and their reception, is one that guided the early stages of my research. When I arrived in Kunming, I thought the archives after 1949 might reveal a highly differentiated approach to vaccination among Yunnan's many and diverse ethnic groups, one that would broadly reflect the assertions of central power that Morris Rossabi has identified for this region in the early PRC.⁷ However, much of the paperwork I looked at predated the Ethnic Minority Survey of 1954.⁸ It also largely reflected administrative labor in the provincial capital of Kunming, and did not seem to make formal differentiations between ethnicities. That said, it is clear that non-Han communities were eventually particular targets of mass immunization work, simply because it was in Yunnan's remote reaches, where many minority populations lived, that smallpox lingered and ultimately was extinguished. The final official

cases were identified, quarantined, and treated along the border with Burma in 1960.⁹ Does this fact mean that minority groups resisted and evaded state vaccination efforts with particular intensity, or that vaccinators simply took longer to succeed in traversing the mountainous terrain of the Yunnanese borderlands? Or, indeed, that they cared less about the public health of these minority groups? The answers remain opaque to me, lying somewhere between the contingent, lived experiences of individuals who probably speak languages I do not and

records that I was not able to see. However, two consequences of these events are vividly apparent, now more than ever: the successful eradication of at least one major infectious disease, and the power over life that the Chinese state accumulated in the process.

¹ Taisu Zhang, “How Much Could a New Virus Damage Beijing’s Legitimacy?” <http://www.chinafile.com/reporting-opinion/viewpoint/how-much-could-new-virus-damage-beijings-legitimacy>

² Yutu Jiang, Jing Ma, Guang Xiahou, and Donald A. Henderson, “Outbreaks of Smallpox Due to Variolation in China, 1962-1965.” *American Journal of Epidemiology* 128, no. 1 (July 1988): 39-45.

³ Chang Chia-feng, “Dispersing the Foetal Toxin of the Body: Conceptions of Smallpox Aetiology in Pre-modern China,” in *Contagion: Perspectives from Pre-Modern Societies*, edited by Lawrence I. Conrad and Dominik Wujastyk (Aldershot, UK: Ashgate, 2000), 23-38.

⁴ Wang Shou-chuan, Julia Mulin Qiao-Wong, and Zhao Xia, with Jiang Nan, *Pediatrics in Chinese Medicine* (Beijing: Renmin weisheng chubanshe, 2012), 71.

⁵ Jiang, Ma, Guang, and Henderson, “Outbreaks of Smallpox Due to Variolation,” 41-42.

⁶ Jiang, Ma, Guang, and Henderson, “Outbreaks of Smallpox Due to Variolation,” 40, 43-44.

⁷ Morris Rossabi, “Introduction,” in *Governing China’s Multiethnic Frontiers*, ed. Morris Rossabi (Seattle: University of Washington Press, 2004), 8-9. See also Stevan Harrell, *Ways*

of Being Ethnic in Southwest China (Seattle: University of Washington Press, 2001); and Sydney White, “Medical discourses, Naxi identities, and the state: Transformations in Socialist China,” PhD diss., University of California, Berkeley with the University of California, San Francisco, 1993.

⁸ Thomas Mullaney, *Coming to Terms with the Nation: Ethnic Classification in Modern China* (Berkeley and Los Angeles: University of California Press, 2011).

⁹ Government of the People’s Republic of China, “Smallpox Eradication in China,” report submitted to World Health Organization on July 31, 1979, WHO/SE/79.142, <http://apps.who.int/iris/handle/10665/68275>. In looking through the pages of public health journals like *Southwestern Hygiene* (Xinan weisheng 西南衛生) in the early People’s Republic, I did see discussion of medicine among minority peoples, but largely with respect not to vaccination, but implementations of “new methods” of sanitary childbirth that advocated the washing of hands and administration of silver nitrate to newborns’ eyes. See also Tina Phillips Johnson, *Childbirth in Republican China: Delivering Modernity* (Lanham, MD: Lexington Books, 2011), 170-75.