LI ZHANG 2021. The Origins of Covid-19. China and Global Capitalism.

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This monography is challenging to review because it combines and interconnects divergent aspects and perspectives on the emergence of, and respectively human response to, COVID-19, which, of course, also constitutes the strength of this book. It includes distinguishing criticism on China from a general critique on global health politics and pro-Chinese eulogies regarding responses to the pandemic from the discussion of global failures. However, her resistance toward binary constructions of truth or fraud and the illustration of converging, contesting, and contradictory insights determine this critical investigation that focuses on "Global Capitalism" as a particular factor of the pandemic and resulting international geopolitical tensions. The discussion reviews a huge body of literature situated at the intersection of international popular, political, medical and social sciences, including anthropology, and such institutions like the WHO, the Chinese government, the biomedical journal The Lancet, among others, and Chinese health system expert ARTHUR KLEINMAN. It addresses human-environment relations and the urge for critical global contemporary health politics investigations. Still, it mainly focuses on relations between China and the USA due to the author's background as a Chinese-descendant scientist (partly) living and working in the USA.

LI ZHANG holds degrees in anthropology, social relations, Chinese literature and literary theory, and she is Visiting Assistant Professor of Global and International Studies at the University of California, Irvine. Her research interests concern social, political, spatial, and psychological repercussions of China's market reforms and post-socialist transformations. Her earlier works have traced reconfigurations of space, power, and social networks within China's "floating population", privatization of homeownership, city planning, and the remaking of new middle classes unfolding an "inner revolution" brought by emergent psychotherapy movements reconfiguring selfhood, family dynamics, modes of governing, and ethical-technological challenges of "modernity". This background appears to be the matrix of a relatively new triangulation of factors in the experience

of the COVID-19 pandemic at the intersection of biomedical science, state policies, food production, and capitalist structures metastasizing into all spheres of interhuman and human-environment relations. The aims and positionalities of the author remain a little blurry, but apparently, she is critical of "biomedicine" and related symptomrelated responses to COVID-19 reproducing capitalist structures that caused the crisis in the first place. Withstanding contemporary temptations of propagating alleged "truths", she informs about diverging perspectives on the current pandemic experience. She does not argue against biomedical science but clarifies the impact of political, economic, and socio-cultural factors and interests informing it. Employing the structure of classical dramas (and theoretical deconstructions of rituals performing social dramas within pre-liminal, liminal, and post-liminal phases), LI ZHANG organizes her argument in seven chapters: prelude, emergence, emergency, surge, victory, persistence, and epilogue. In a similar spirit, she also warns that failure to reflect on the preconditions and experiences of the pandemic would make her epilogue the prelude for the next crisis.

As main purpose of her engagement, LI ZHANG names the need

[...] to shift debate away from narrow cultural, political, or biomedical frameworks, emphasizing that we must understand the origins of emerging diseases with pandemic potential [...] in much more complex and structural entanglements of state-making, science and technology, and global capitalism. [...] [T]he purpose is to guide a global debate toward the most pertinent questions we need to ask to not simply explain the phenomenon of COVID-19, but also to understand how we may be able to prevent the continued emergence of pandemic diseases. (3)

Chinese policies frame but do not reduce her analysis of problematic biomedical practices as hegemonic agencies and institutions through which pandemics are understood and responded to by governments, individuals, and corporations. As her methodology, she mentions the review of statistics, reports, and statements of the Chinese government and WHO, and in-depth engagement with scholarly publications in biology, virology, epidemiology, medicine, public health, history, social sciences, journalism, and media productions. Unfortunately, a detailed reflection of approaches is missing, and the hard-to-follow reference system of endnotes supports the overall impression of being journalistic and political instead of an academic endeavor.

Chapter 1 (Prelude) introduces frameworks, contexts, and the history of the COVID-19 health crisis by taking a step back and exploring reports on earlier cases of "pneumonia of unknown origin" in fast-growing industrial urban Chinese environments as related to wet markets, e.g., SARS (avian & swine flu). Whereas in the past, censorship of public information had been a common strategy, with the occurrence of SARS in 2003, the Chinese government supposedly

[...] shifted radically from hesitation and denials to forceful quarantines, strict surveillance of whole populations, and massive deployment of biomedical staff and resources. [...] Within a few months, the epidemic was successfully contained in China. (2)

However, now the 2019 novel strain of coronavirus in Wuhan initiated an unprecedented speed spreading China and the world, "reshaping the intertwined futures of China and global capitalism" (2). The author implicates that the investigations of its origins cannot reduce to biomedical examinations abstracted from politics and place but must explore the embedding in conditions of global capitalist modernity that also affect China. It does not seem to be an apologetic statement but instead outlines the framework of modernization and development, environmental degradation, prospects for global health and sustainability, biomedical interventions, and capitalism that appear to sign responsible for the risk of "spilling over" from animals to humans in the first place.

Chapter 2 ("Emergence") describes the city of Wuhan as a center of (inter)national transportation, business, and "new economies" such as food processing industries emphasizing new urban technologies. It reflects on how far this industrial modernization in its rapid change may appear to be a site for infectious disease outbreaks of local, translocal, and global significance. A central

question is where exactly the spillover of the virus from bats to humans occurred, what role the environment of the Huanan wet market of Wuhan with its distribution of (farmed) wildlife animals such as bamboo rats and pangolin play, and what impact locally transforming dietary practices have on networks of global capitalist economies facilitating spreads of infections: the increasing numbers of wild animals in wet markets, an ideology of consumerism, and the commodification of healthcare and food production appear to be central. LI ZHANG explores three divergent but interrelated hypotheses on the virus spread and its transformation toward a global health threat. The first addresses farmed wild animals as intermediaries for the spillover to humans and questions why such a spillover would not have happened before, considering that wild animals already have been slaughtered, distributed, and consumed in Chinese so-called "wet markets" for decades. Further, what exactly would be the connection between Wuhan and the remote mountainous areas at the border with Southeast Asia where the virus allegedly originated within specific bat populations? Was it an indirect cross-over with multiple mutations and virus adaptations finally resulting in the spillover to humans? Was it a direct spillover from bats to workers in the caves and mines of Mojiang in Southeastern China where the search, e.g., for gold and nickel, included the exposure to bat droppings that already before would have caused illness symptoms "atypical pneumonia" (like SARS or COVID)? Some affected workers have been treated in hospitals of surrounding cities such as Yuxi, Kunming, and Guangzhou, and accordingly, the spread within healthcare facilities and research laboratories may be rational explanations. A direct spillover might have also occurred through subsequent researchers exploring the caves, the bats and their droppings, or T.V. production teams and tourists exploring these remote sites of "nature".

Anyway, what would be the connection to Wuhan's wet market of Huanan? It may be its quality as a nodal point of national and international distribution and transportation that facilitate contacts of humans and animals from all over the world in a minimum of time and space. Another explanatory model directs toward a laboratory leak once samples from the Mojiang caves have been analyzed in research facilities close to the market. Some rumors even imagine an accident related to "gain-of-function"-experiments on SARS and SARS-like viruses to study possible enhancements of impacts on humans or even their potential as a biological weapon.

LI ZHANG proposes to consider an interplay of some of these aspects to be responsible for the virus to transform and spread. Laboratory medical tests results demonstrate that for many years people in the surroundings of the caves have been exposed to coronaviruses but would develop no or only mild symptoms as they would have developed antibodies. However, a new highway now connects the remote area with major cities, enhancing working migration and commodity flows to Wuhan and its wet market Huanan as a significant destination and transshipment point, thus facilitating the spillover to humans without an adapted immune system. The same may be true for increasing rural tourism and mining activities in these biodiversity hot spots, as well as the largescale farming of wild animals:

Whether directly from bats to humans, or indirectly through an intermediary species increasingly farmed in the region like bamboo rats, this gradual and complex path for novel coronaviruses to emerge from the mountains of Yunnan or the surrounding regions and trigger the first major outbreak in Wuhan is my leading hypothesis. (51)

It appears that the environment of the vast indoor market Huanan and its transportation networks with multiple animals concentrated and kept in precarious conditions may then have further accelerated mutations from a mild or slowpaced disease to a highly contagious one. However, the problem's solution would have to transgress the rationalization of wildlife utilization and narrow eco-modernist approaches. Orienting themselves on modern chicken and swine production facilities, Chinese politicians and scientists have suggested accordingly modernizing wildlife, ignoring various SARS epidemics (aval and swine flu) in recent years. Contrary, LI ZHANG offers a different approach to food production in terms of sustainable agroecology instead of increasing capacities to modernize wildlife farming and wet markets. She postulates the ethical responsibility of biotechnologies, reminding us that health

and illness result from particular environments and conditions and that modern standards in global capitalism do not provide the basis for enduring animal and human health and well-being. Quite the opposite, they would be responsible for spreading new and developing chronic diseases.

Chapter 3 ("Emergency") almost reads like the diary of failures. When the first COVID-19 infections occurred in December 2019, professional uncertainty and confusion about responsibilities hindered the proper filing of results and their communication to public health institutions. Further, the upcoming Spring Festival as an economically relevant holiday season left authorities to withhold or at least control information. It took one month before measures were taken, but still, official media pretended that everything was under control. In the aftermath, divergent narratives on the period between New Year and Spring Festival either highlight the speed, transparency, and effectiveness of government actions or criticize and accuse the Chinese government of systematically suppressing relevant information and thus pandering to the pandemic. However, LI ZHANG clarifies that this justified critique distinguishes from US Americans' crude and racist anti-China rhetoric, e.g., by ex-president Trump and other Republican hardliners. The consideration of various factors would draw a differentiated picture of political, economic, and socio-cultural aspects:

A group of Chinese scholars based in Nanjing, Shanghai, and Australia, for example, argue that government censorship and disinformation during this period, combined with a lack of local autonomy for public health management and the privatization of the healthcare system, caused doctors and the masses to be unprepared in Wuhan and delayed for thirty-four days an appropriate response to the crisis. In addition, some highlevel officials from China's healthcare apparatus indicate lower-level officials withheld crucial information from decision-makers and refused to implement recommendations early enough [...]. (57)

Accordingly, to start with, the fear of rejection, sanctions, and dismissal impeded officials from (re)acting, unfortunately being a global reality in (health) politics. Further, WHO and NHC (Chinese National Health Commission) agreed to restrict local medical laboratories from research to warrant a centralized investigation in government-controlled institutions but instead, blocking flows of knowledge, information, and communication. The fact that the Spring Festival as an essential business factor hindered faster interventions is another failure in health policy that unfortunately continues to be repeated worldwide, e.g., in Germany with its contemporary discussions on sports events and Christmas markets. Multiple political and economic interests become entangled in maintaining stability and consumerism, and the hope for a "false alarm" or at least only a local disaster conquered rational health decisions. Like elsewhere in the world and until today, the lockdown came too late, and transparent information has been denied for the sake of distinct interests that even in times of a global crisis "[...] would unfold hand-in-hand with a surge in scientific, capitalist, and political competition worldwide" (75).

Chapter 4 ("Surge") informs about the measures finally performed in China and, in the aftermath, globally, as well as socio-political responses to them. By the time mainstream media reported about the new disease and the government initiated the lockdown of Wuhan, COVID-19 cases had already occurred in all regions of China but in Tibet. Suspensions of passenger transportation, travel restrictions, and other measures could not avoid increasing numbers of infections and deaths, the collapse of the healthcare system in Wuhan, and the resulting social tensions and anxiety. Later, WHO similarly failed in taking timely measures: even though already in January 2020 identifying the coronavirus as a public health emergency due to infections independent from travels to China or contact to persons with such a history, only in March 2020, WHO declared it a pandemic. LI ZHANG explores socio-political reactions ranging from inner-Chinese stigmatization of people from the Wuhan region to the general discrimination of Chinese, randomly blaming the distribution and consumption of wildlife animals, scientific research on SARS and coronaviruses, and government plans of having implemented a biological weapon and finishing with the global economy. It challenged the legitimacy of the Chinese establishment at the intersection of interrelated interests in political stability, economic continuity, public health security, and national pride. Alongside prophylactic measures, a massive mobilization of healthcare workers, equipment, infrastructure, and social solidarity intended to not just control and manage the virus but also popular emotions and panic, e.g., via the censorship of social media. However, she identifies the pursuit of profit in the healthcare sector as a major problem undermining the national preparedness for such an emergency - maintaining stocks would be too expensive - which, in her opinion, would have been different in previous Socialist eras. She detects similar problems in the USA and Europe, among other countries, and concludes that it has not been a Chinese failure but the characteristic of healthcare in global capitalism. Accordingly, she identifies hospitals as danger zones of increasing infection rates due to stampedes and the lack of protective equipment. She argues for more decentralized forms of healthcare instead of prioritizing hospitals as the alleged "most modern" way characteristic for biomedicine in its entanglement with global capitalism. Another critical aspect has been the worldwide manipulation and control of scientific reports and the spread of incorrect information, resulting in highly contested discourses on truth and their attrition between the extreme ideological mills of subversive conspiracy theories and governmental state propaganda. Many Chinese scientists, and particularly those with official affiliations, have been criticized for withholding important information for the sake of more prestigious performances in international biomedical high-profile publications rather than supporting local communities and authorities with their knowledge. On the other hand, non-peer-reviewed articles have promoted non-verified opinions and suggestions, fueling speculations globally spreading just like the virus itself. Once again, the reaction of the Chinese government appears to be lame but also not differing from comparable practices around the world: it would control publication processes and, of course, thus, even more, have dampened research and rational debate; science, again, has become highly politicized. Accordingly, political and economic contests initiated a global race for the development, distribution, and financial revenue of pharmaceuticals and vaccines to control the pandemic. Consequently, the confluence of state, biomedical, and nationalist interests until today hinders the examination of the underlying conditions

that give rise to pandemics, assuming instead that they are inevitable and promoting a narrow focus on biomedical measures for pandemic control.

LI ZHANG rejects the shifting priorities in public health from a socialist goal of democratizing public healthcare to "modernization" through private investments in treatments and vaccines in the spirit of profit (rather than charity, or at least, responsibility). She observes that the institutional entanglement of state, biomedicine, and economy

[...] glorifies modern science and technology as the dominant way to address emergent diseases with pandemic potential. [However] they not only failed to prevent another novel coronavirus outbreak in 2019 but continue to overlook the structural conditions that drive the emergence of infectious diseases like COVID-19. (29f)

She declares the narrow biomedical approach an arrogant and naïve trust in science that ignores social complexities and thereby forecloses critique of the capitalist modernity that in the first place facilitates the appearance of new diseases with its dynamics of urbanization, industrialization, environmental pollution, socioeconomic inequalities, and the agglomeration of workers with poor healthcare. Accordingly, biomedical countermeasures are part of the same regime that assumes emerging infectious diseases are an inevitable threat, offering technological improvement and the extension of experts', doctors', and pharmaceutics' guidance, power, and profit as the only possible response. LI ZHANG concludes that

[t]hese issues are too complex to be remedied through technocratic management. After all, they involve articulations between the modern state, global capitalism, consumerist and nationalist society, and science and technology. Therefore, China's victory over the COVID-19 epidemic is fraught with tension, reproducing the underlying conditions [...]. (100)

Apart from her critique on the frameworks, she declares China's mobilization a successful public health management in absolute contrast to spectacular failures in the USA, Europe, Brazil, India, and elsewhere. She dedicates chapter 5 to this "Victory" of avoiding new infections in China but unfortunately, not the global pandemic. While China celebrates its victory, the rest of the world slides into crisis, partly blaming China for unleashing the virus and acknowledging their efforts as an example to the world. Geopolitical tensions become apparent and manifest in mutual suspicions, conspiracy theories, fake news in social and mass media, and continued policies of cover-ups and lack of transparency as continued fatal failures in Global Public Health due to the complexity of competing interests. China develops a new role for the cooperation in international medical aid, integrating biomedicine and Traditional Chinese Medicine (TCM), distributing masks, equipment, and pharmaceuticals, and thus transforming a domestic crisis into an opportunity for international leadership and economic upscale:

[...] China's challenge became threefold. First, ensure the recovery of those who were infected. Second, foster national pride, popular trust, and international legitimacy. Third, recover its economy while the rest of the world fell into crisis, extending the need for surveillance and containment of the disease. (119)

This task produced another dilemma of restarting the economy while maintaining strict public health surveillance, travel restrictions, and containment measures. The alleged solution has been ramped up consumerism in Chinese society and doubling down on capitalist investments, thus somewhat maintaining the vicious cycle. Chapter 6 ("Persistence") verifies this skepticism by exploring the return of COVID-19 to China, exemplified with a new breakout in a highly modernized food market in Beijing in June 2020 and related rumors of contaminated imported food supply chains. The disease now has become addressed as an external threat from countries that failed to contain the pandemic, again leading to increasing travel and import controls but now the other way around.

LI ZHANG clarifies that in history, Chinese elites have accepted a medicalized view of their country's problems and embraced medical solutions for perceived deficiencies of both the Chinese state and the Chinese body since the late Qing empire, throughout colonialism, and the Republican and the Maoist eras, thus applying to increasing state surveillance within the Chinese society but also creating a paradoxical and asymmetric culture that celebrates Chinese nationalism but also "superior" foreign science and technology. Market reforms in the 1980s have initiated this paradoxical relationship that increasingly has been structured by global capitalism, including the capitalist transformation of TCM, thus commodifying health and diminishing preventive community care. Now,

[t]he Chinese state and society see themselves [...] transitioning from mere recipients of modern medicine to partners or even leaders in the advancement of a global regime of health security, undergirded by profitable biomedical science and technology, including promotion of the integration of traditional Chinese medicine (TCM) with Western medicine. (130f)

In this regard, LI ZHANG observes in her summarizing chapter 7 (Epilogue) that the persistence of geopolitical struggles and competition in biomedical science and global capitalism will further drive the emergence of infectious diseases. She postulates to restructure healthcare toward the common good rather than private profit, especially in the Global South where public health systems are more vulnerable, particularly marginalized social classes suffer from parallel pandemics of HIV, influenza, tuberculosis, and other chronic diseases.

LI ZHANG thus does not merely contribute detailed, entangled, and also somewhat controversial information, case studies, and vignettes on the biological, political, economic, medial, and socio-cultural factors of the COVID-19 pandemic and responses to it. Even though she lacks defining what she actually means with "global capitalism", she develops a thorough investigation and critical argument regarding Global Health n d eco-

nomics that I highly suggest considering. I agree with the author's recommendation of continuous interdisciplinary study and analysis, as well as a public discussion of the various aspects and facts she critically explores. I see the potential to reconcile ideologized and contested perspectives by enabling us to think out of the box and look behind the scenes. Writing this review in December 2021, with a new German government in the starting blocks and ongoing discussions on compulsory vaccinations and regulations for Christmas markets, shopping malls, and soccer events (let alone the Winter Olympics 2022 in China), I agree with LI ZHANGS's perception that the focus of political activity addresses the maintenance of consumerism as "system-relevant". I critically observe state and media propaganda postulating more vaccinations for the alleged sake of social solidarity, even though their sustainable effect proves to be questionable, except for the economic situation of pharmaceutic industries. In this regard, even the last desperate argument of German pro-vaccination agencies dissolves when asserting that unvaccinated persons challenge the maintenance of intensive care units: they should at least mention that in 2020, at the temporal epicenter of the pandemic, thousands of intensive care spaces in Germany have been dismantled, among other reasons and developments, due to the lack of available nurses that would cope with marginal payment and social appreciation within a profit-oriented healthcare system. Here I speak as a nurse who in the late 1990s experienced structural violence, quit the job, and started to engage with medical anthropology.

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