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Strategy and Biosecurity: An Applied History Perspective

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ABSTRACT: This paper develops an applied historical perspective on infectious disease as a dilemma for US national security policy, beginning with an abbreviated global history of biosecurity before moving into the history of recent U.S. national security policy since the 1930s. The effective management of biosecurity perils in the future will require a synthetic approach to national biosecurity that melds familiar strategies of offshore preemption with robust new commitments to homeland biodefense. For the United States, a country whose political architecture inhibits the national government's capacity to effect vigorous public health initiatives at home, the border is a site of rare opportunity, a venue where the federal government can act proactively. Solutions like the fifteenth-century Italian quarantine or the Austrian Military Border unappealing may affront our liberal sensibilities, much as the affronted the liberal sensibilities of nineteenth-century British critics. But as we confront the ravages of Covid-19, the self-evident incapacities of our global public health regime to manage a global pandemic, and the shortcomings of our domestic U.S. response, we might find ourselves pondering the question: what, if anything, is the alternative?

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In the very long view, epidemiological catastrophe is a new problem. For the first hundred thousand years, give or take, behaviorally modern homo sapiens inhabited social formations too small to sustain large-scale community-based infections: plague, smallpox, typhus, malaria, tuberculosis, and so on. Our vulnerability to such killers has resulted from the historical process of development, which has pulled human beings into larger and denser communities, and from the integration of disparate human communities into larger webs, or globalization. As Edward Jenner wrote in the 1790s: "The deviation of man from the state in which he was originally placed by nature seems to have proved to him a prolific source of disease."[1]

In the very short view, epidemiological catastrophe may also appear a new problem, at least for the world's most advanced societies. Since Jenner's experiments in smallpox vaccination more than two centuries ago, scientists have thwarted many of the microbial assassins that once preyed upon us. Sanitation, surveillance, and vaccination have controlled—and even eradicated—some of history's deadliest killers. The World Health Organization (WHO) declared smallpox eliminated in 1980.[2] Industrialized societies have held measles, poliomyelitis, and rubella at bay in the decades since the Second World War. Immunization, the WHO today proclaims, represents "one of the greatest success stories in global health."[3]

So effective has the march of biomedical progress been that a new contagion has emerged within some societies: an Internet-driven anti-vaccination movement that pays Jenner and his heirs an ironic compliment. In their disregard for the horrors of infectious disease, the so-called "anti-vaxxers" reveal the achievement of modern medicine: the scientists' feats have permitted them—and us—to take for granted our freedom from the ravages of infectious disease.

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[1] Edward Jenner, *An Inquiry into the Causes and Effects of the Variolae Vaccinae* (1798). Cited in Dutour (2016) Paleopathology of Human Infections, p. 94.
[2] On smallpox eradication, see Bob Reinhardt, *The End of a Global Pox: America and the Eradication of Smallpox in the Cold War Era* (Chapel Hill: UNC Press, 2015).
[3] https://www.who.int/immunization/en/

Such freedom is one of modernity's crowning achievements, which is why theorists of development often characterize the "epidemiological transition," in which infectious disease dwindles and chronic conditions like cancer and heart disease become the principal drivers of mortality, as a portal to advanced modernity.[4] To contain infectious disease is to become modern, emancipated at last from the murderous microbes that plagued human beings and human societies across the millennia of agricultural civilization that began with the Neolithic Revolution.

Not so fast. Situated in the broad arc of human experience, the containment of infectious disease has unfolded within the blink of an eye, within the 79-year lifespan of the average American. Even in the world's most advanced societies, many elderly people still carry the physiological burdens of childhood infectious diseases, such as polio; scars inscribed upon the bodies of the living are evidence of how recent an achievement the containment of infectious diseases has been.

Even worse, infectious disease remains a creative enemy. Old pathogens like plague and smallpox may have been conquered, but nature continues to hurl new epidemiological perils down upon us. Within the past forty years, we have witnessed the rise of new and terrible diseases, of which the deadliest has been HIV/AIDS. After springing the zoonotic barrier in the 1920s, HIV festered in southwest Africa, then clambered abroad the infrastructure of globalization in the 1970s, becoming a global pandemic.[5] HIV/AIDS has killed around 32 million people, a toll that resembles the overall mortality impact of the First World War.

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[4] For the classic formulation, see A.R. Omran, "The Epidemiologic Transition: A Theory of the Epidemiology of Population Change," *The Milbank Memorial Fund Quarterly* Vol. 49, no. 4 (1971): 509–38. On the evolution of the concept, see Kristin Harper and George Armelagos, "The Changing Disease-Scape in the Third Epidemiological Transition." *International Journal of Environmental Research and Public Health* Vol. 7, no. 2 (2010); and Ailiana Santosa et. al., "The Development and Experience of Epidemiological Transition Theory Over Four Decades: A Systematic Review," *Global Health Action* Vol. 7, no. 6 (2014). For a recent example of the concept's deployment in development economics, see Angus Deaton, *The Great Escape: Health, Wealth, and the Origins of Inequality* (Princeton University Press, 2015).

[5] Jacques Pepin, *The Origins of AIDS*. Cambridge University Press, 2011.

Since the 1970s, other novel diseases have followed versions of this script. Originating in horseshoe bats in central China, the SARS-CoV-1 coronavirus triggered an outbreak of respiratory illness that killed hundreds of people in 2002-4. An even deadlier coronavirus, MERS-CoV, which spread from bats to humans via camels, has caused a series of outbreaks since 2012, killing around one third of the people it infects. To date, almost 900 people have succumbed. Even more catastrophic have been the family of ebolaviruses that have caused a series of epidemics in Western Africa since the 1970s. The epidemic that raged across Guinea, Liberia, and Sierra Leone in 2013-16 killed over 10,000 people.

And today, we confront SARS-Cov-2. Probably originating in bats, the coronavirus responsible for Covid-19 appears to have arrived in human beings via zoonotic transition. Unraveling the sequence of events that loosed the virus upon the world remains a high-stakes puzzle, the resolution of should have consequences for China’s global standing. But in the broadest of historical panoramas, the forensic details are essentially unimportant. Like other recent pandemics, Covid-19 subverts the historical grand narrative encapsulated within the theory of epidemiological transition. Instead, Covid-19 shows how the dual processes of globalization and development have rendered human societies more vulnerable to infectious disease, not less.

For sure, the perils that SARS-Cov-2 poses to human societies ought not be exaggerated. We are still ascertaining precise case fatality rates, but it seems already safe to conclude that SARS-Cov-2 kills no more than 1 percent of those whom it infects—and likely far, far fewer. The half million lives that Covid-19 has claimed in the United States during the first year of the pandemic is a national and historical catastrophe, but the death tolls bear comparison to the numbers of Americans who succumb each year to heart disease and cancer. We will not experience an epidemiological de-transition as a consequence of Covid 19, thankfully.

Still, the repercussions that Covid-19 has inflicted upon entire societies—mass death, wrenching unemployment, social convulsions, and geopolitical uncertainty—showcase our collective vulnerability to a highly contagious virus that kills only a small minority of those whom it

infects. One year into the pandemic, the restoration of social and economic normalcy remains elusive. Thus, even if the mortality risks of Covid-19 remain low from the standpoint of the aggregate individual, the impacts to our society have proved significant, warranting comparisons to major acts of terrorism, massive natural disasters, and even interstate war. The necessity of grappling with infectious disease as a problem for national security should thus be self-evident.

This paper develops an applied historical perspective on infectious disease as a dilemma for US national security policy. The author is not a specialist in the history of medicine; his interests situate in the realm of foreign and national security policy. What follows should be read as an interested speculation, not as an authoritative treatment. The analysis commences with an abbreviated global history of biosecurity, then moves into the more recent history of U.S. national security policy. Drawing lessons from the evolution of U.S. national security policy since the 1930s, the argument proposes that the effective management of biosecurity perils in the future will require a synthetic approach to national biosecurity that melds familiar strategies of offshore preemption with robust new commitments to homeland biodefense.

Start with the deep perspective. Even a cursory view of the historical panorama confirms that our predicament does not lack for precedents. Human beings who lived in small-scale bands and tribes were not immune to microbial doom; pathogens predated upon us with abandon, as archeological evidence and genetic reconstruction today confirm. But our vulnerability to massive community-based infectious disease escalated sharply as human societies turned to sedentary agriculture, achieving new levels of social complexity and demographic density. The concentrations of human and animal bodies that resulted from the Neolithic Revolution, a threshold

through which human societies began passing around ten thousand years ago, proved hospitable for pathogens, and homo sapiens entered the era of pandemic disease.[6]

The consequences for human societies proved dramatic, registering in some the most celebrated episodes of recorded human history. The Athenian commander Thucydides recounts in his history of the Peloponnesian War, a conflict waged almost 2,500 years ago, how plague devastated Athens and shifted the course of the war.[7] The Plague of Athens that struck in 430 BC, which historians have alternatively attributed to typhus, smallpox, and measles, claimed up to a quarter of Athens's population and nipped in the bud the prospect of an early Athenian victory, condemning Athens to defeat and the Hellenic world to prolonged, epochal conflict that ended the fifth-century efflorescence of Greek civilization.

Half a millennium later, Rome unified the Mediterranean World and forged a complex imperial economy that spanned Europe, African, and Asia, enabling goods, people, and microbes to transit the Middle Sea with unprecedented ease. The consequences of Rome's achievements in imperial globalization included not only a flourishing urban culture but also the Antonine Plague, an epidemic that Rome's well-organized legions may have spread from Mesopotamia to Gaul. Most likely attributable to smallpox and not to the bubonic plague, as traditional accounts once had it, the Antonine Plague claimed millions of deaths.[8] And yet, the Roman Empire, in its second-century apex, proved resilient. Three hundred years later, the story was quite different. The Plague of Justinian, which was Europe's first encounter with the bubonic plague, cut another terrible scythe of destruction through the Mediterranean World. This time, the pandemic hastened the collapse of Roman institutions and accelerated the transition to a post-Roman order in Western Europe.[9]

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[6] McNeill, *Plagues and Peoples*; and Snowden, *Epidemics and Society*.
[7] Thucydides, *Thucydides*, pp. 118-24.
[8] Harper, *The Fate of Rome*.
[9] Harper, *The Fate of Rome*.

Striking as these ancient catastrophes are, history offers no more poignant example of the geopolitical and demographic power of infectious disease than the Columbian exchange.[10] The integration of the hemispheres ranks among the greatest forward jolts in the long history of globalization, and it exposed the peoples of the Americas to an array of Eurasian pathogens whose ravages the conquistadors compounded with brutality, exploitation, and enslavement. The mortality effects that resulted were so dramatic that they registered in the Earth’s climate. The depopulation of the New World after 1492 led to the reforestation of agricultural lands, which in turn caused a reduction in the atmosphere’s carbon dioxide concentration that is today still measurable in ice core samples.[11]

The Columbian Exchange was a singular demographic catastrophe, but similar dynamics recurred in other venues where European colonizers encountered long-isolated populations.[12] Harrowing as such encounters have been, the implications for the present day of what historians once called “virgin soil” epidemics are not clear except insofar as their lessons caution against the epidemiological risks of long-term spacefaring. Rather, the deep history of humanity’s encounter with infectious diseases should underscore the essential wisdom of Edward Jenner’s macro-historical argument: our progress in the reams of culture, technology, and production has not emancipated us from the perils of infectious disease. On the contrary, our incremental movement towards an integrated global modernity has amplified our vulnerabilities.

Put another way, the pattern of human history subsequent to the emergence of anatomically modern human beings might be conceived as a double movement. The first phase is the

[10] The classic narratives of 1492 as a “virgin soil” epidemic are: McNeill, *Plagues and Peoples*; and Crosby, *Ecological Imperialism*. For a critique of the “virgin soil” framework, see Jones, “Virgin Soils Revisited.”
[11] Koch, Alexander, Chris Brierley, Mark M. Maslin, and Simon L. Lewis, “Earth System Impacts of the European Arrival and Great Dying in the Americas after 1492.” *Quaternary Science Reviews* 207 (March 1, 2019): 13–36.
[12] Seth Archer, *Sharks upon the Land: Colonialism, Indigenous Health, and Culture in Hawai’i, 1778-1855* (New York: Cambridge University Press, 2018).

long era of dispersal that begins with the first outmigrations from Africa, our ancient and common home, that began as early as one hundred thousand years ago. The second, briefer phase is the era of reintegration that begins with the rise of complex societies around ten thousands ago, passes through the rise and fall of agrarian and then seafaring empires, and culminates, in our times, in the pattern of contemporary globalization. This grand movement has had decisive consequences for relations between homo sapiens and that minuscule, highly-specialized cohort of microbes that has adapted to predate upon our bodies. As a result of our reintegration as a species, we humans no longer enjoy the relative freedom from community-based infectious diseases that our dispersal into bands and tribes—a kind of primitive social distancing—formerly conferred.

Development has made vulnerable to biological risks, as Edward Jenner grasped. But development has also animated the construction and refinement of political institutions capable of mitigating the adverse epidemiological consequences of social and economic advancement. Indeed, the impetus that biological threats have provided to the cultivation and refinement of state capacities has been so powerful, especially in the era of advanced globalization that begins with the Columbian Exchange, that infectious disease might be identified as a driver of political development, not so dissimilar in from intestate conflict in the nature and magnitude of its effects. Like war, infectious disease has motivated states to expand and refine their capacities for coercion, control, and surveillance, over both physical territory and human bodies.

To disentangle the entwinement of state power and biosecurity initiatives, we might begin by reflecting on the etymology of the term quarantine, an old word that has acquired new familiarity in the era of of Covid-19. The word derives from the Italian quaranta, describing a 40-day period of isolation imposed on passengers arriving from overseas. First imposed as a trentina, or 30-day period of isolation, in the Venetian seaport of Ragusa (present-day Dubrovnik) in 1377, quarantine became a vital instrument of biosecurity policy across northern Italy during the fifteenth century apex of the Italian Renaissance. The Republic of Venice established its first

quarantine station, or lazaretto, in 1423; other Italian cities gradually emulated Venetian methods, deploying biological containment to protect themselves against pathogenic threats.[13]

It was not by accident that Italians pioneered solutions to the problem of biosecurity. After all, Italians of the fifteenth century were, by global standards, exceptionally exposed to the biological perils that accompany the integration of human communities across vast expanses of space. A crucible for Eurasian globalization, Venice functioned as the westernmost terminus of the Silk Road, Europe's gateway to the commerce of the East. Eurasian trade made Venice affluent and powerful, but with globalization came risks, which the Republic of Venice strived to manage through the enactment of pioneering biosecurity initiatives.

What Italians pioneered during the Renaissance, the Austro-Hungarian Empire perfected in the eighteenth-century: namely, a territorial solution to the problem of biosecurity. Having functioned since the Byzantine Empire's mid-fifteenth century fall as Europe's first line of defense against the geopolitical and religious threats that Europeans perceived in the Ottoman Empire, Austria built in the eighteenth century an elaborate system for securing its territory—and Western Europe—against the bubonic plague.

Stretching from the Adriatic to Transylvania, the Austrian Military Border involved a chain of fortifications, lookout posts, and sentry stations, all deployed along the land border with the Ottoman Empire. To mitigate the project's financial burdens, the Military Border utilized, for the most part, not professional soldiers but conscripted peasants, whose knowledge of the local terrain made them adept patrolmen. Buttressing this territorial infrastructure, a system of biological intelligence gathering, which stationed Austrian diplomats and health officials deep within the Ottoman Empire, alerted frontier officials to possible emanations of biological threat from

[13] Gianfranco Gensini, Magdi H. Yacoub, and Andrea A. Conti, "The Concept of Quarantine in History: From Plague to Sars." *Journal of Infection* Vol. 49, no. 4 (November 1, 2004): 257–61; and Eugenia Tognotti, "Lessons from the History of Quarantine, from Plague to Influenza A." Emerging Infectious Diseases 19, no. 2 (February 2013): 254–59.

the east. Enforcement was harsh. During times of escalated emergency, unauthorized individuals found in the border zone were subject to summary execution. But the Military Border secured Europe against the bubonic plague, which remained a global threat—capable of producing eruptions from India to California—into the twentieth century. Only in the late nineteenth century, as the Ottoman Empire eradicated the bubonic plague from its own territory, did the Austro-Hungarian Empire dismantle the elaborate system of frontier defense it had superintended for more than a century[14]

Austrian and Venetian initiatives in the arena of biosecurity were defensive, intended to protect civilian populations against the intrusion of inbound pathogenic perils. European states that expanded beyond Europe, on the other hand, encountered not only novel biological threats but also biological opportunities. These illustrated a different kind of relationship between disease and state power, in which microbes functioned not as a general adversary but as a useful adjunct in conflicts between human societies.

Microbes, as is well known, functioned as the vanguard force in Europe’s assault upon the Americas, a continent set apart from Eurasian disease pools for more than ten thousand years. Smallpox followed fast on the heels of Hernan Cortés, who landed on the American mainland in 1519. The pathogen’s arrival in 1520, most likely via a second expedition under Panfilo de Narváez, unleashed the epidemic. A scythe of mortality followed, quenching indigenous resistance to the Spanish conquistadors.

Versions of this story would replay across New World venues over the centuries to come. When Francisco Pizarro, the conqueror of Peru, entered Cuzco in 1533, he toppled an Incan Empire that disease had already ravaged. In North America, the arrival of Europeans from the late

[14] Frank M. Snowden, *Epidemics and Society: From the Black Death to the Present* (New Haven: Yale University Press, 2019), pp. 72-73; and Gunther Rothenberg, “The Austrian Sanitary Cordon and the Control of the Bubonic Plague: 1710–1871.” *Journal of the History of Medicine and Allied Sciences* XXVIII, no. 1 (January 1, 1973): 15–23.

sixteenth century triggered waves epidemiological catastrophe.[15] Plymouth Colony, to give one famous example, was founded upon the ruins of a Patuxet village that Eurasian disease, perhaps leptospirosis, had ravaged and destroyed.[16] The balance of responsibility between human agency and infectious disease can—and should—be debated, but it can be surmised without risk that in without the adjunct of infectious disease, Europe's conquest of the New World would not have unfolded as it did.[17]

Situated in global view, moreover, Europe's conquest of the Americas was exceptional.[18] In coastal Africa, around the rim of the Indian Ocean, and on the coastlines of Southeast Asia, early-modern Europeans built forts and trading posts and operated maritime protection rackets. Nowhere outside the Americas did Europeans before the Industrial Revolution topple complex indigenous empires or build settler-colonial societies. What made the Americas different was disease: as members of a Eurasian disease community, Asians and Africans were no less resilient than Europeans to the pathogens that Columbus and Cortés carried with them to the New World. Instead, Europeans who left Europe sometimes encountered pathogens that stopped them in their tracks.

Foremost among the extra-European diseases that plagued European empire-builders were yellow fever and malaria. Both originated in Africa and came to the Americas with the enslaved peoples whose lives and labor Europeans plundered to supplant the New World's dwin-

[15] Colin G. Calloway, *One Vast Winter Count: The Native American West Before Lewis And Clark* (Lincoln: University of Nebraska Press, 2006), esp. pp. 415-25.
[16] For a review of the literature and discussion of leptospirosis as possible culprit, see Marr, John S., and John T. Cathey. "New Hypothesis for Cause of Epidemic among Native Americans, New England, 1616–1619." Emerging Infectious Diseases 16, no. 2 (February 2010): 281–86.
[17] Cook, Noble David. *Born to Die: Disease and New World Conquest, 1492-1650* (New York : Cambridge University Press, 1998.)
[18] A point well made in Jason Sharman, *Empires of the Weak: The Real Story of European Expansion and the Creation of the New World Order* (Princeton, NJ: Princeton University Press, 2019).

dling indigenous populations. The tropical and subtropical Americas proved hospitable to the African flavivirus, which causes yellow fever virus, the African plasmodium that causes malaria, and an African species of mosquito (aedes aegypti) well-adapted to spreading blood-borne disease. The Caribbean quickly became a morass of disease, and disease spawned geopolitical consequences.[19]

People who survived malaria and yellow fever became resilient, or "seasoned," in the English colonial vernacular. New arrivals from Europe perished like flies. Disease thereby conferred a first-mover advantage on those who colonized first, helping the Spanish Empire to stave off better-organized European competitors, as Oliver Cromwell learned when his "Western Design" against the Spanish Caribbean ended in ignominious failure.

Across the early modern period, variation in combatants' resilience to disease proved a significant factor in colonial warfare, even shaping the outcome of British North America's war for independence, which was fought during a continental smallpox epidemic.[20] Decades later, another disease helped to secure the territorial expansion of the United States when yellow fever ravaged the force that Napoleon Bonaparte dispatched in 1801 to reclaim Haiti from Toussaint l'Overture, leader of the slave rebellion that had overthrew French rule in the 1790s. Unable to reconquer Haiti, Napoleon opted instead to sell France's Louisiana Territory to the United States, which benefitted a second time from the deleterious effects that epidemic disease imposed upon European combatants.[21]

Infectious disease shaped the trajectories of early-modern colonization, but the colonization process also exposed metropolitan populations to non-European pathogens. Cholera, a virus

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[19] J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914* (New York: Cambridge University Press, 2010).
[20] Fenn, Elizabeth A. *Pox Americana: The Great Smallpox Epidemic of 1775-82* (New York: Farrar, Straus and Giroux, 2002).
[21] J. R. McNeill, *Mosquito Empires.*

endemic to South Asia, arrived in Europe as a result of the East India Company’s conquests. The first modern cholera pandemic began in India in 1817 and quickly proliferated worldwide. Subsequent waves of cholera crested and receded over the nineteenth century, carried aboard the technologies of industrial globalization. A deadly and gruesome disease, cholera flourished in the booming cities of the nineteenth-century North Atlantic. Empowered by industrial technologies, including new information technologies, states responded by orchestrating systems of biological containment.

When the first waves of cholera impacted Europe in the 1820s, governments improvised systems of biodefense, imposing quarantine upon travelers and excluding ships traveling from afflicted regions. Such controls proliferated, but biosecurity initiatives also became controversial. Critics who disbelieved cholera’s ability to spread from host to host, insisting that cholera sprung from unsanitary environments, disparaged quarantine tactics as both an affront to medical science and an assault upon inalienable liberties. British liberals were often vigorous foes of quarantine methods, and the international sanitary conferences that convened for the first time in Paris in 1851 became venues for confrontation between the the continental advocates and the British opponents of quarantine tactics. Only in the 1880s, as researchers validated the germ theory of disease causation that Italian medical scientists had long favored did the controversies over disease containment dissipate, along with the worst ravages of cholera itself.[22]

In the late nineteenth century, governments in the industrializing world achieved considerable headway against infectious disease. In Europe, in particular, governments improvised and deployed an array of countermeasures: controls on travel to inhibit the penetration of pathogens; new standards and infrastructures for improving public sanitation; and biomedical research that culminated in the last years of the nineteenth century in the deployment of cholera vaccines.

[22] Christopher Hamlin, *Cholera: The Biography* (New York: Oxford, 20090; and Frank M. Snowden, *Epidemics and Society: From the Black Death to the Present* (New Haven: Yale University Press, 2019).

Through such tactics, states improvised solutions to the problem of biosecurity under the conditions of accelerating globalization. By the century’s end, cholera was receding from Europe and North America, although it remained widespread in the non-Western world, where it continues, to the present day, to kill tens of thousands of people every year.[23]

Infectious disease propelled Europe’s advance to world predominance, and the exposure to infectious disease that resulted from global exploration and conquest motivated European (and neo-European) states to improvise novel solutions to the problem of biosecurity. The projection of U.S. power and influence into the circum-Caribbean, for example, prompted the United States government to mobilize for war against yellow fever and malaria and A. aegypti, the mosquito responsible for the transmission of these diseases between human hosts.[24] Especially legible in tropical and subtropical venues, the responsibilities of the modern state for advancing biosecurity were by now self-evident, including to theorists of politics.

Around the turn of the twentieth century the Swedish political scientist who coined the term “geopolitics” to describe the state’s territorial nature devised the concept of “ethnopolitics” to describe the state’s responsibility for the sustenance of human life. Analogizing the nation-state to a living organism, Rudolf Kjellén did not innovate so much as he articulated his era’s commonplace.[25] For progressive eugenists and public health pioneers alike, it was by now axiomatic that the exercise of what Michel Foucault would call “biopolitical” power was an essential attribute of statehood. Security against infectious disease—as much as security against hostile foreign powers—was a public good that modern states should deliver.

For all its innovations in public health, which achieved unprecedented progress against infectious disease, Kjéllen’s era also produced cruel biopolitical excesses, which the false dogma

[23] https://www.who.int/health-topics/cholera#tab=tab_1
[24] McNeill, Mosquito Empires, Chap. 8.
[25] Gunneflo (2015) Nordic Biopolitics before the Welfare State, Lemke (2010) From State Biology to the Government of Life, and Tunander (2001) "Swedish-German Geopolitics for a New Century”.

of “scientific racism” often informed. In the name of “eugenics”—a nineteenth-century neologism combing Greek words for “good” and “coming into being”—doctors and public officials throughout the European and Neo-European world collaborated to mold the biological future of the human species, enacting laws to prohibit so-called “miscegenation” and to impose sterilization upon the “unfit.” Nazi Germany embraced such grotesqueries with zealous enthusiasm, but more liberal societies, including the United States, also deployed and even pioneered techniques of bioengineering. Solutions that overt white supremacists like Madison Grant championed achieved greater influence in the Anglo-American mainstream than we might care to remember.

If the National Socialist project in Germany drew upon broad tributaries, Nazism’s singular horrors ended up casting biopolitics into historic disrepute. If Nazism, as Aimé Césaire wrote, was colonialism distilled to its rawest form, the Nazis also refined Progressive-era biopolitics into its most toxic essence.[26] In the Third Reich’s aftermath, the victorious Anglo-Americans recoiled from the horror of the Third Reich and affirmed universal natural rights—a doctrine that eugenicists and race scientists of the Progressive era had dismissed as the Enlightenment’s unscientific detritus—as a renewed basis for political legitimacy. The postwar resurgence of rights-affirming liberalism did not eradicate demographic engineering, of course, any more than it eliminated racism, but the shadow of Josef Mengele would hereafter haunt the enterprise of biopolitics. This bleak association would have consequences for a postwar world, in which the successes of medical science would hold at bay not only an expanding cohort of infectious diseases but also, and more ironically, the overt deployment of biopolitical power by government.

The view from the borders of the United States illustrates the swing of the pendulum. Over the second half of the twentieth century, the United States dismantled the system of border controls

[26] Aimé Césaire, *Discours sur le colonialisme* (Paris: Présence africaine, 1989).

and checkpoints that it built in the late nineteenth and early twentieth centuries to secure American territory against inbound contagion.[27] Biosecurity in the second half of the twentieth century ceased, for the most part, to be a problem of territorial defense, as it had been in the quarantine era.

Instead, biosecurity became assimilated to a grand strategy of offshore preemption, in which the focus of American defensive efforts shifted abroad, away from the borders and inside foreign societies. This shift built upon a logic of confronting threats elsewhere that could be traced back to the U.S. Army’s campaigns against malaria and yellow fever in the circum-Caribbean from the 1890s. Now deployed at a global scale, offshore preemption began to cohere as a national strategy in the late 1930s, achieving its fullest expression and institutionalization during the early Cold War. In this new phase, infectious disease functioned as both a metaphorical and literal threat, a threat that should, wherever possible, be confronted elsewhere.

Call it the “Roosevelt Conflation“—the greatest paradigm shift in the history of US national security strategy. Franklin Roosevelt did not invent the notion that American security and global security were entwined and synonymous, but it was Roosevelt who operationalized the conflation, enacting in the process a radical redefinition of national security, which became from the 1940s conflated with global security.

Prior to FDR, Americans had relied upon the free security that their oceanic remove and domination of their continent afforded them. Woodrow Wilson tried to break the traditional outlook, but Americans rejected his vision of US global engagement, preferring to focus on their regional neighborhood. After Wilson, Americans—even so-called isolationists—assimilated Latin

[27] {$NOTE_LABEL} IOM (2006) Quarantine Stations at Ports of Entry: Protecting the Public's Health, p. 99.

America into an enlarged conception of ”hemisphere defense,” but Americans continued, for the most part, to understand extra-hemispheric threats as essentially extraneous.[28]

What changed in the late 1930s was FDR’s diagnosis of the threat that fascist and militarist regimes elsewhere posed to the United States. For Roosevelt, 1937 was a crucial year. Nazi operations in the Spanish Civil War, including the bombing of Guernica, and the outbreak later that year of the Sino-Japanese War pushed the president to confront the problem of lawlessness and aggression overseas. In a famous October 1937 speech, he compared international aggression to an “epidemic of physical disease” and called upon “peace-loving nations” to erect a “quarantine.”[29]

Roosevelt sympathized with beleaguered Spaniards and Chinese, but he was concerned about the perils that far-flung militarism posed to the United States. He worried, in particular, about the strategic implications of new and emerging technologies, including aircraft carriers and long-range bombers. In an era of accelerating globalization and breakneck military-technological innovation, FDR worried, the “free security” that America’s continental remove had long offered was for the first time becoming an illusion.[30]

Roosevelt’s reorientation towards extra-continental threats did not command a quick consensus within U.S. domestic politics. Instead, many Americans in the late 1930s and early 1940s inverted the president’s conclusions. Whereas Roosevelt came to view overseas lawlessness as a mandate for U.S. global engagement, the specter of militarism and aggression elsewhere corroborated, for many others, the wisdom of hemispheric separation.

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[28] The historical literature is vast. For a revealing contemporary perspective, see Nicholas J. Spykman, *America’s Strategy in World Politics: The United States and the Balance of Power* (New York: Harcourt, Brace and Co., 1942).
[29] Address at Chicago, October 5, 1937. Available at <https://www.presidency.ucsb.edu>.
[30] On FDR’s reorientation towards extra-hemispheric threats, see John L. Gaddis, *Surprise, Security, and the American Experience* (Cambridge, Mass.: Harvard University Press, 2004); and David Reynolds, *From Munich to Pearl Harbor : Roosevelt’s America and the Origins of the Second World War* (Chicago: Ivan R. Dee, 2001).

What ensued, famously, was the "great debate" between continentalist and globalist perspectives, often characterized as a debate between internationalists and isolationists.[31] FDR was a convinced globalist, adamant that US security depended upon the restoration of the European balance of power. He improvised with aplomb, enacting schemes to supply Great Britain with vital military supplies, but he could not escape the constraints that politics imposed.

Pearl Harbor did not resolve the great debate, but the war's advent tilted the political terrain towards the globalists. Hereafter, the proposition that overseas militarism could injure American society—and that the appeasement of militarist regimes was folly—became commonplace. As relations between the United States and the Soviet Union deteriorated during 1945-47, policymakers operationalized the "lessons" learned during the pre-World War Two phase.[32]

These lessons included the conclusion that managing aggression—especially aggression emanating from illiberal and antidemocratic regimes—required consistency and strength, not flexibility and compromise, tactics that could now be disparaged as "appeasement." These lessons also included the Rooseveltian conclusion that securing the world for liberal democracy—and for the United States of America—would depend not only upon confronting aggressive regimes but also upon remedying the social and economic conditions that gave rise to illiberal regimes in the first place.

Call it Roosevelt's "social justice theory of war prevention": a prescription for the chronic global condition FDR diagnosed in 1937. For the thirty-second president and the pro-

[31] The historian Charles Beard, often characterized as an "isolationist" preferred "continentalism." See Charles Beard, *A Foreign Policy for America* (New York: A.A. Knopf, 1940).
[32] Ernest May stressed the influence of prewar experience upon postwar choices. See Ernest May, *"Lessons" of the Past the Use and Misuse of History in American Foreign Policy* (New York: Oxford University Press, 1973).

gressive New Dealers who led the United States into world war and cold war, it became axiomatic that international security—and thus US security—depended upon the promotion of economic and political development elsewhere.[33]

Formulated most famously in Roosevelt's conception of the "Four Freedoms," presented in his 1941 State of the Union, the social justice theory of war prevention held that poverty causes political radicalization, which causes aggression, which threatens national security. Conveyed to a British audience by Vice President Wallace in 1942, the logic of the theory appeared thus:

> "War is seen as part of a continuous process whose roots lie deep in poverty, insecurity, starvation and unemployment. A world from which these evils have not been banished is a world in which Hitlers and wars will perpetually recur."[34]

Wallace was a progressive's progressive, but the underlying presumptions he voiced spanned much of the US political establishment in the 1940s, enveloping not only progressive New Dealers but also more conservative internationalists.

It was a wealthier and more conservative Henry—Henry Luce, not Henry Wallace—who argued in the famous "American Century" essay of 1941 that the security of the world—and of the United States—depended, in the end, upon the universalization of American modernity and its attendant material blessings. Envisioning a "more abundant life" for all peoples, which only US-style industrial production could bestow, Henry Luce called upon his country "to be the Good Samaritan of the entire world." The security of the United States, Luce reasoned, depended upon it disseminating the blessings of American modernity.[35]

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[33] For a startling account of the New Dealers' global ambition, see: Elizabeth Borgwardt, *A New Deal for the World: America's Vision for Human Rights* (Cambridge, Mass.: Harvard University Press, 2005).
[34] "The American Challenge," *The Economist*, July 18, 1942.
[35] Reprinted as Henry R. Luce, "The American Century" in *Diplomatic History* Vol. 23, no. 2 (April 1, 1999): 159–71.

The Cold War raised the stakes for the doctrine of development-as-security. In Marxist-Leninism and the USSR, the United States confronted not a deranged dogma of racial fanaticism, such as Nazism had been, but a revolutionary and universalist creed whose credibility as a framework for the rapid enactment of industrial modernity was sky-high in the aftermath of 1945.[36]

Recognizing a worthy competitor, the Truman administration escalated its commitments to global development. In 1949, the president put forward his famous Point Four program, which proposed to help all members of the "human family" achieve "decent satisfying" lives through the promotion of prosperity. "Greater production," Truman declared—reiterating Henry Luce's point—"is the key to prosperity and peace." To secure peace, the United States would confront poverty and its root causes, initially through technical assistance.[37]

In this new paradigm, infectious disease appeared in two distinct guises. It functioned, first, as metaphor. With the Cold War's advent, Americans extended the metaphor that Roosevelt had deployed in his quarantine speech of 1937, casting Marxist-Leninism in the guise of pathogen. The designation of Communism as an ideological contagion, to which weak and traumatized societies were especially susceptible, became pervasive amid the Red Scare, a familiar rhetorical trope of the early Cold War.

But concern for infectious disease as a literal foe, not just as metaphor, also informed Cold War strategy making. From the Truman administration onwards, Cold War decision makers aimed to secure the world—and the United States of Americas—by combatting the infectious diseases that trapped "developing" societies in bitter cycles of poverty, desperation, and radicalization. An exchange between the president of the Iranian parliament and the director of the U.S.

[36] For a now-classic presentation of the Cold War as a clash between developmental vision, see Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (New York: Cambridge University Press, 2005).
[37] Truman, Inaugural Address, January 20, 1949.

technical cooperation mission in Iran in 1952 reveals the strategic logic with almost perfect clarity. As the American director recalled:

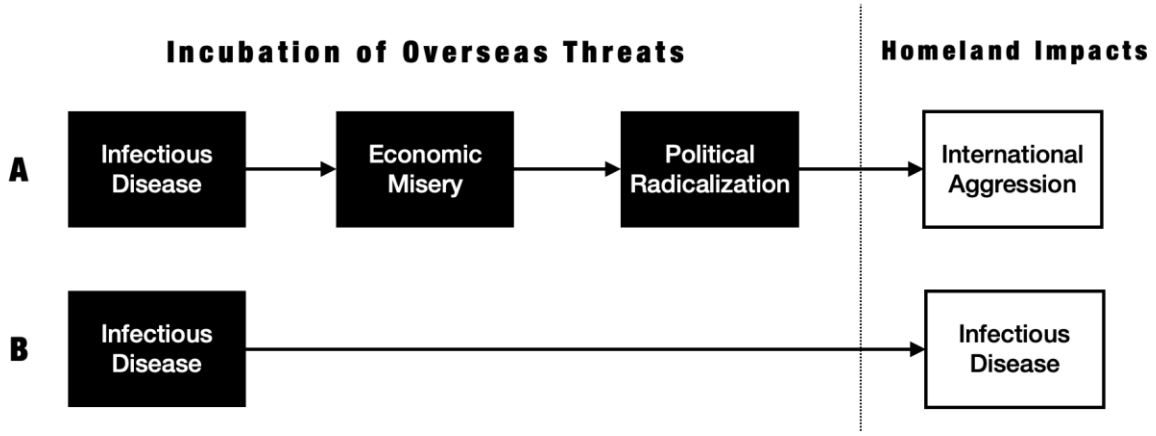
> "I said I did not wake up each morning thinking, "How can I fight communism?" but I woke up each morning thinking, "How can I assist in fighting the diseases, hunger, and poverty that plague the people of Iran?" I said that if this was an attack on the roots of communism then communism was a diseased plant and ought to be rooted out."[38]

According to this logic, infectious disease—like hunger and poverty contagions—represented an indirect threat to US national security. As Americans passed through the epidemiological threshold, infectious disease might no longer constitute a direct threat to the American homeland, but it remained a potent foe, capable of rendering societies elsewhere susceptible to Communism—a secondary infection that could have significant adverse implications, in the Cold War imagination, for American national security.

To summarize, what cohered in the early Cold War was a novel paradigm (A) for conceptualizing infectious disease as a threat to national security. From the Italian quarantine to the Austro-Habsburg Military Frontier and the cholera laws of the nineteenth-century, states had erected controls—or projected biopolitical power—to order to protect their residents against infectious disease. The cordon sanitaire, in this old paradigm (B), had literal meaning; exclusion through the exertion of rigorous territorial controls was how states secured, or at least attempted to secure, their bodies politic against infectious disease.

Infectious Disease as Security Threat: Two Paradigms

[38] *Foreign Relations of the United States, 1951-1954: Iran*, no. 115.



In the mid-twentieth century, American policymakers conceived a new paradigm, according to which epidemic disease instead posed an essentially indirect threat to national security. Cohering in an era when Americans were self-confident in the “conquest” of infectious diseases at home, the new paradigm presumed that the spread of infectious disease elsewhere represented the gravest threat to U.S. national security. According to this paradigm, it was outside the United States, where infectious disease exacerbated the socioeconomic conditions that bred hostile ideologies, where the age-old peril of community-based infections posed the gravest threat to U.S. national security. To confront this indirect epidemiological threat, policymakers devised and implemented strategies of offshore preemption that aimed to support social and economic development elsewhere, in the hope of preempting ideological contagion and, over the long run, shaping an international order favorable to US interests and conducive to US security.

Strategies of offshore preemption, favored from the 1940s, have not prioritized homeland defense. In many ways, that is precisely the point. Offshore preemption aims to minimize the necessity for homeland defense by engaging and preempting threats to national security overseas, securing the homeland against threats and thereby achieving a simulacrum of the free security that geography once assured.

Despite its obsolescence in an era of advanced globalization, the chimera of free security continues to shape the arena for US national security policy. Its legacies reverberate in the country's unusual constitutional arrangements; in its trajectories of political development; and in the relative incapacity of the US federal government to deal with transnational perils. This history still shapes the landscape for biodefense and thus warrants careful attention.

The thirteen colonies that revolted against the British Empire in 1775-76 secured their independence through shrewd manipulation of Europe's balance of power, but North America's continental remove and the British Empire's strategic indulgence after the War of 1812 meant that the rising United States enjoyed free security, or some close approximation thereof, over the long arc of the nineteenth century.

Apart from the brief interruption of the Civil War, when the Union faced the threat of secession (but not conquest), the United States did not have to prepare itself, or its political institutions, to confront and deter great-power rivals. As a result, the interstate conflicts that propelled the development of early-modern European states did not impose upon the United States with comparable effect.[39] Charles Tilly's famous aphorism—"war made the state, and the state made war"—captures the essential dynamics of European political development with pithy precision, but America's continental remove, and resultant free security, has meant that war did not exert similar effect on the making of the United States.

Instead, territorial expansion has been the driving logic of U.S. political development. The federal union was not created to govern a centralized state, such as Great Britain became as a result of the Glorious Revolution and the eighteenth-century wars its rulers waged against France. Instead, the Constitution of 1787 was invented to sustain a union, or "peace pact,"

[39] For an important rejoinder to Tilly's famous argument, see Miguel Centeno, *Blood and Debt: War and the Nation-State in Latin America* (University Park, Pa.; London: Penn State University Press, 2003). Centeno argues that the dynamics of interstate conflict that drive West European political development are absent in Latin America; the point could equally well envelop the United States.

among a community of states whose numbers were destined to multiply as the colonization of North America proceeded westwards.[40] For sure, the Constitution made provision for conducting commercial and diplomatic relations with foreign governments and for ensuring the common defense, an area where the post-revolutionary Confederation Congress had fallen short. But the ratification of the Federal Constitution in 1788 was only the first act in a long and faltering process whereby the capacities necessary for mobilizing and projecting power in the world were retrofitted, often uneasily, onto a constitutional framework designed to facilitate the cellular reproduction of states across North America.

International comparison highlights the peculiarities of the American experience, especially after the War of 1812, which resolved earlier debates about whether the United States would be an Atlantic or continental power in favor of a continental destiny. Unlike Europe's great powers, the United States in the nineteenth century built few of the political institutions necessary to mobilize economic and social resources for the purposes of organizing territorial defense against great power rivals. The United States did not sustain fiscal and monetary institutions capable of sustaining a large and professionalized military force; instead, its leaders allowed the Bank of the United States to expire. The United States did not build a standing army supported by a system of staff colleges, or a navy capable of projecting power far beyond continental waters, or even defending its own coastline against hostile assault. Instead, the United States government honed its lean and effective military capabilities for the frontier, where the federal government waged wars of conquest and dispossession against Indian peoples. By the late nineteenth century, the small minority of US citizens who cared about the projection of

[40] Crucially, David Hendrickson, *Peace Pact: The Lost World of the American Founding* (Lawrence: University of Kansas Press, 2003); and *Union, Nation, or Empire: The American Debate Over International Relations, 1789-1941* (Lawrence: University of Kansas Press, 2009.) For a powerful restatement of the view that 1688 was a modernizing revolution, see Steven Pincus, *1688: The First Modern Revolution* (New Haven: Yale University Press, 2009).

American power in the world were acutely aware of just how far their country’s institutional capabilities lagged behind those of Europe’s leading-edge powers: Germany, France, and Great Britain.

Over the first half of the twentieth century, the United States moved, at first falteringly, to assert geopolitical influence commensurate with its standing as the world’s largest economy power, a status achieved in the 1870s. During the Progressive Era, the United States acquired direct taxation, military staff colleges, and, with the Federal Reserve System, an approximation of a central bank. In the Second World War’s aftermath, the United States improvised the integrated military command architectures and professional intelligence capabilities that other great powers already took for granted. These innovations, tethered to the republic’s exceptional economic might, have enabled the United States to function as a great power, even as a rule-setting global superpower.

Still, the institutional capabilities that today empower the US government to act for the purposes of achieving security in the world have, to an impressive degree, been retrofitted to a Constitutional apparatus that was designed to facilitate achieve territorial expansion at the expense of Indian peoples, not the waging of defensive wars against great power peers. The new capacities for security that have been built since the 1940s have been attached, for the most part, to those parts of the federal government whose responsibilities for security are delineated with greatest clarity under the Constitution. These, of course, are the executive branch and, in particular, the presidency, whose holder functions, under the Constitution, as the “commander in chief,” empowered to act, as necessary, to repel inbound threats. Thus empowered, successive presidents have since the 1940s wielded their powers offshore, to preempt security threats.

What have evolved, as a result, are institutional capabilities that serve US national security but also operationalize a conception of security as freedom from external aggression. Substitute a more expansive conception of security—including the assurance of health and welfare, and

the security capacities of the U.S. government begin to appear strikingly limited, at least by comparison with those of other advanced industrialized states. Unlike the countries of Western Europe, which built welfare states upon the foundations of warfare states, the United States after 1945 did not transform its federal government into a comprehensive defender of the general wellbeing. Instead, the powers of the federal government remain circumscribed in a variety of significant respects.

Crucially, the so-called "police power" that entitles government to act to secure public health, public welfare, and the general wellbeing is reserved, under the 10th Amendment to the Constitution, not to the federal government but to the separate states and to the people.[41] Since the late nineteenth century, the separate states have enacted rafts of protections to advance public health, sanitation, workers rights, and so on. Even when citizens have challenged such state-level laws, invoking individual rights enumerated under the Constitution, federal courts have often deferred to the police power prerogatives of the states.[42] During the Covid-19 pandemic, citizens who have challenged in federal courts state-level laws enacted to stem the pandemic, such as mask mandates, have mostly failed, outside of protected spheres such as religious observation. In the arena of public health, then, it is the separate states that approximate the biopolitical capacities of exemplary modern states, not the federal government.

The overall picture that results is complex. The United States is not an archetypal modern state, exercising unified control over territory and citizenry alike from a single administrative center. Instead, the United States remains a more variegated federation, functioning as a unitary

[41] Disaggregating state from federal powers, the historical Gary Gerstle argues, is crucial to resolving the conundrum of whether the United States is a strong or a weak state. See Gary Gerstle, *Liberty and Coercion: The Paradox of American Government from the Founding to the Present* (Princeton, N.J.: Princeton University Press, 2017), esp. Chap. 2

[42] Ergo, Barbier v. Connolly, 113 U.S. 27 (1885).

state in the international arena but operating in many arenas of domestic policy as a more complex and disaggregated federation. (Comparisons might be made between the United States and the European Union, an even looser and unrulier assemblage of states.) This distinctive political architecture has implications for biosecurity policy, since the border is a venue where federal power is essentially unrestrained, in contrast to the protection of public health within the separate states.

And yet, border-based security has been, in relative terms, a low priority for the United States government since the Roosevelt Conflation. Rather than secure the border against inbound threats, the United States during the Cold War and into the globalization era has devoted itself to the offshore preemption of inbound threats—a strategic prioritization that has been made manifest in the global reach and budgetary prioritization of the U.S. Department of Defense.

Having enshrined offshore preemption as the nation’s national security strategy, Americans since the 1940s have grappled only belatedly, and in haphazard fashion, with the necessity of homeland defense. There have, for sure, been moments of exception. The Soviet Union’s construction of a nuclear arsenal after 1949 prompted a mania for the construction of reinforced bunkers that no other Western nation undertook with comparable zeal. But the arrival of Mutual Assured Destruction (MAD) in the mid-1960s and the subsequent alleviation of Cold War tensions through diplomacy and arms control eased, at least somewhat, the sensation of vulnerability that ad vexed American society in the early Cold War. When the American homeland came under direct attack in the Cold War’s halcyon aftermath, it came as a shock.

In the early morning of September 11, 2001, four teams of terrorists strolled through security checkpoints at Boston Logan, New York Newark, and Washington Dulles airports. They boarded wide-body jets, which they hijacked and repurposed as missiles. The consequences would prove violent, tragic, and transformative.

As the 9/11 Commission’s methodical report concluded, the deadliest attack on the American homeland in the republic’s 250-year history exposed a multitude of failures: security

failures, intelligence failures, and failures of the political imagination. These failures resulted, in part, from historical processes of institutional development, especially at the intersection of foreign intelligence and domestic law enforcement. The history mattered, and it remains revealing.

Having little prior experience of national-level policing, the federal government created the FBI in the mid-1930s in response to an epidemic of criminality and organized crime that became a major issue in the presidential election of 1932. Creating the FBI was controversial at the time, but the threat of gangsterism and the nationalizing instincts of the New Dealers were sufficient to prompt an unprecedented experiment in national policing.[43]

As the United States turned in the 1940s to confront the Soviet Union and the world Communist movement, domestic law enforcement agencies became intimately involved in the effort to secure the American homeland against perceived external threats. The FBI and the CIA cooperated closely to confront and surveil alleged threats within the United States. The threat of Communist subversion during the Cold War was real, as decrypted intercepts of Soviet communications have shown, but counter-intelligence operations also produced a series of well-known and lamentable excesses, including the harassment of Civil Rights leaders such as Martin Luther King. Such abuses by law enforcement prompted Congress to enacted in the 1970s formal rules “to build a wall between federal law enforcement and the nation’s intelligence community.”[44] The resulting wall would inhibit the sharing and, perhaps, the assemblage of those fragments of evidence that might have enabled analysts to predict and preempt Al Qaeda’s “planes plot.”

After 9/11, Congress acted, in a mood of panic, to remedy the nation’s newly-exposed vulnerabilities. Congress razed the wall constructed in the 1970s to separate domestic policing from overseas intelligence, and a series of shakeups reorganized the institutional basis for

[43] Anthony Gregory, "From War on Crime to Liberal Security State The New Deal and American Political Legitimacy,” PhD Dissertation, Berkeley, California, 2020.
[44] https://fas.org/irp/eprint/wall.pdf

”homeland security,” a previously obscure phrase that now became ubiquitous. The most dramatic move was the creation in 2002 of a new cabinet-level Department of Homeland Security, whose first secretary was the former Pennsylvania Governor, Tom Ridge.

Entrusted with responsibility for the nation’s territorial security, the Department of Homeland Security pulled together a diverse array of government functions: border security, port security, disaster relief, biosecurity, and related capacities. Meanwhile, a separate military command (US Northern Command) reporting direct to the Secretary of Defense would continue to exercise lead responsibility for securing the American homeland against external military threats. Overall, the effect of the post-9/11 reforms was to constitute “homeland security” as a novel arena for making security policy, an arena distinct from the offshore, or global, realm that had been, and would remain, the responsibility of the Department of State and, especially, the U.S. Department of Defense.

Evaluating post-9/11 innovations in Homeland Security remains difficult: records of counterintelligence operations are classified, so it is impossible to assess accomplishments against threats the new agency may have parried. Specific aspects of the post-9/11 integrative project have come come under withering attack. Prominent veterans of the Federal Emergency Management Administration (FEMA) argued after Hurricane Katrina, for example, that the agency’s relocation within the Department of Homeland Security had made federal disaster relief less effective than it had been was when FEMA stood alone, as a freestanding agency. But when it comes to the threat that prompted Homeland Security’s creation in the first place, the historical record appears impressive.

Since 9/11, the United States has suffered no large-scale terrorist attack. Those terrorist episodes the United States has suffered have resulted from the easy availability of firearms within the United States and the online radicalization of both white supremacists and militant Islamists. More sophisticated, transnational terrorist operations like Al Qaeda and Islamic State have been held at bay, presumably through some combination of robust homeland defense and

the vigorous offshore operations that US forces overseas have waged in the name of what President Bush called a “Global War on Terror.”

This experience may have lessons to teach. As we contemplate the question of how to protect American society against future epidemiological perils, including pandemics far deadlier than Covid-19 has been, the post-9/11 Global War on Terror, which fused long-standing strategies of offshore preemption with a new commitment to homeland defense provides a plausible template for biosecurity.

Before asking what such a strategy might accomplish, we should contemplate, at least in passing, the legal and institutional opportunities that the border affords as a venue for enacting biodefense. As I have argued, the distinctive trajectories of political development the United States has followed curtail the capacity of the US federal government to effect biosecurity initiatives within the states. Instead, such power is reserved to a patchwork of authorities: governors, county-level public health officials, school board leaders, and so on.

As a result, the kinds of coherent, national biosecurity initiatives that have been improvised in other advanced industrialized states during 2020 would be exceedingly difficult, if not impossible, to emulate in the United States. South Korea, for example, may be an exemplar, but the capacity of the United States to emulate its example is not self-evident. After all, the US government has still not completed the process of standardizing state-level identity documents that began with the 2003 recommendation of the 9/11 Commission that that federal government “set standards for the issuance of sources of identification, such as driver's licenses.” The notion that the US government could enact complex and adaptive new biosecurity infrastructures, such as a nationwide track and trace system, defies experience and abundant historical evidence to the contrary.

In many ways, counterterrorist policy has been easier to effect across state lines than biosecurity initiatives would be. Longstanding institutional capacities, centered in the US Department of Justice and the FBI, equipped the federal government with nationwide law enforcement

and counterintelligence capabilities before 9/11. In the arena of public health, the picture is quite different. Here, a sprawling patchwork of local and state-level competencies makes the orchestration of “test and trace” and other surveillance-based approaches to the containment of infectious disease exceedingly difficult. Existing institutions, such as the Center for Disease Control and the National Institute for Allergy and Infectious Disease, of course fulfill vital purposes, providing leadership and directing research funds and priorities. But these federal institutions lack the authoritative powers that ministers of public health in most advanced industrialized countries take for granted.

The border is different: it is one of the few arenas in American life where federal power reigns supreme, unchecked by state and local competencies. Federal power in the border zone has recurrently been deployed for cruel and exclusionary purposes, as infamous episodes from the Chinese Exclusion Act of 1882 to the Trump administration’s separation of migrant families illustrate. Still, the significant leeway that the Constitution gives the federal government in the regulation of cross-border movement makes the border a site where an adaptive and proactive response to epidemiological threats could, conceivably, be enacted.

After all, the bottom line is that foreign nationals, with the exception of asylum seekers, have no legal right to enter the United States. Tourist and business travelers, who account for the preponderance of international arrivals, can be interrupted for virtually any reason the executive branch deems necessary to the preservation of US national security, so long as the federal government does not discriminate against members of protected categories (such as race or religion). The border thus represents a site that could, properly configured, become the first line of defense in an effective biosecurity strategy. Other countries, such as Australia and New Zealand, modeled this approach during 2020, achieving impressive containment of Covid-19. Had we acted similarly, we can only wonder as to how the history of the past twelve months might have unfolded.

Consider, if you will, an alternative history of 2020. We’ll begin around New Year’s Day, in Wuhan, China. Having detected a proliferation of pneumonia-like respiratory illness, public health authorities in Wuhan notify the World Health Organization (WHO) that an unknown virus—a possible zoonotic transition—may be circulating. Within days, SARS-Cov-2 has been identified and its genome sequenced. In Wuhan, the virus spreads, becoming an epidemic. On January 23, as Chinese citizens ready for Kunar New Year, Communist Party officials slam the gates closed, shutting down Wuhan and, days later, another fifteen cities in Hubei. By now, the explosion of novel infectious disease in Wuhan is world news.

On January 28, Senator Tom Cotton writes to the Secretaries of State, Health and Human Services, and Homeland Security imploring them to impose a temporary ban upon air travel to the United States from China. Cotton describes the threat’s iminence and its seriousness. “At least five cases,” he writes, have already been confirmed on American soil.” Cotton is right, but the dramatic aversive action that he advocates is already underway.[45]

Three days later, on January 31, the National Security Council meets With the president chairing, the NSC raises the nation’s biosecurity readiness to MEDCON 2, the second highest level of bio-alert. The decision sets in motion a cascade of consequences. A vast stockpile of federal resources, including warehouses of personal protective equipment (PPE), becomes available to state and local public agencies; an emergency surveillance system, requiring doctors and hospitals to report all respiratory diagnoses to a temporary national database is enacted; and, most important, all inbound passenger travel to the United States is suspended with immediate effect. From London Heathrow to Tokyo Hareda, boarding gates are slammed closed. Air traffic con-

[45] https://www.cotton.senate.gov/files/documents/200128_Senator%20Cotton_Coronavirus_Letter.pdf

trollers instruct planes in flight towards US destinations to return, if possible, to ports of departure. Overseas, U.S. embassies and consulates begin to arrange repatriation for citizens trapped overseas. These citizens will be allowed to return to US soil only aboard special military flights, which will ferry passengers to military bases, where they must undergo 14-day periods of quarantine and medical surveillance.

Upon the administration’s shock announcement, stock markets tank. The Dow Jones loses almost 14 percent of its value over the next 10 days, falling from over 29,000 to just over 25,000. From Zurich to Singapore, American citizens stranded overseas lament their situation and berate their president. Conservative editorialists assail President Hillary Clinton, making predictable historical analogies to the 1930s. In a dramatic stunt, the Fox News host Tucker Carlson travels to Calexico, a town spanning the U.S.-Mexico border, and crosses into Mexico for a few moments. Carlson then steps back into the United States, ridiculing the quarantine requirement. DHS officials escort him to a military base, where Carlson serves his 14-day quarantine without access to the airwaves.

The decision to invoke MEDCON 2 is intensely controversial and unpopular, and President Clinton’s approval rating slumps into the low 40s. She is unperturbed. As the Coronavirus spreads worldwide, the needle of public opinion begins to move. By late February, just three weeks after the imposition of the US travel ban, Covid-19 is becoming endemic in northern Italy. Horrific scenes ensure. Opinion writers now begin to salute President Clinton for her farsighted action. Had her NSC not escalated to MEDCON 2, they argue, the nation would soon be facing a major epidemic, and far more oppressive biosecurity controls. Under MEDCON 1, the nation’s highest level of biosecurity preparedness, Americans would have to submit not only to a shutdown of international travel but also to an onerous regime of “social distancing” and mask wearing at home.

As they look at the world, Americans by the summer of 2020 can only marvel in their good fortune. For sure, dozens of community-based transmissions of Covid-19 have occurred

within the United States, all attributable to international arrivals that occurred prior to the enactment of President Clinton’s ban on international arrivals. The threat of contagion requires some changes in American lifestyles. Large-scale public events are suspended for a couple of months, and major league sports are played behind closed doors in March and April; sports fans come back into stadia only in May. Face masks become ubiquitous inside hospitals and doctor’s offices. But the largest inconvenience, by far, remains the shutdown of international travel, which remains prohibited.

In social terms, the adverse costs of the Clinton administration’s pandemic precautions are uneven. High-flying professionals are forced to cancel exotic vacations and overseas business trips. Americans with close relatives overseas find themselves detached from their families. The human impacts are poignant, as Americans dial into weddings and funerals overseas via teleconference. But there are benefits too. Corporate lawyers and peripatetic academics find themselves spending more time with their families. For the vast majority of Americans, life goes on as usual. As the world swirls in chaos, the nation’s politics are calm, even placid. Historians invoke the Era of Good Feelings and speculate that the Democrats are becoming, once again, the nation’s default party of government.

By October 2020, President Clinton is buoyant in the opinion polls and appears to be cruising to an easy re-election against Ted Nugent, the Republican Party’s surprise nominee for president. Across the Atlantic, the reality television star Clinton defeated in the nail-biting presidential election of 2016 takes a multi-week hiatus from Twitter as he recovers, in his Scottish golf resort, from a dangerous bout with Covid-19. Given his medical history, Donald Trump can be thankful not to have succumbed to a pandemic that has already claimed fifty thousand lives in Great Britain and many hundreds of thousands more across Western Europe. Back in the United States, President Clinton trumpets her reelection slogan: “She Put America First.”

Is this scenario ridiculous? Surely. Utterly implausible? Perhaps not. This alternative history of 2020 relies upon upon no undiscovered technologies or improbable scientific feats. It

does not rely upon an "Operation Warp Speed" that develops a safe vaccine for a novel coronavirus with unprecedented haste. Nor does the scenario bend the parameters of what the U.S. Constitution would permit the federal government to do. Indeed, the sitting U.S. president Donald Trump did prohibit passenger arrivals from China on January 31, 2020.

Had Trump acted with greater decisiveness and imposed a global travel ban on January 31, the nation might have averted the worst of the pandemic. Subsequent academic research suggests that the explosion of Covid cases in the Spring of 2020 resulted from arrivals in early February.[46] Trump's insistence on keeping the borders open may thus condemned the nation to a prolonged and pandemic and, presumably, contributed to his defeat in the presidential election of 2020.

Insider accounts have suggested that top economic officials within the Trump administration opposed travel bans, reasoning that the economic consequences would be severe. Such concerns cannot be discounted, but with the vantage of hindsight it is difficult to imagine that the costs of a more proactive and comprehensive travel shutdown could have approached the costs that Covid-19 has inflicted since March 2020. Instead, the prioritization of economic fears over public health in late January 2020 would appear, from the outside at least, to have been a classic case of short-term calculation that, in the end, served neither public health nor the nation's economic interests over the longer term.

The point is not intended to hold the Trump administration singularly responsible. For one thing, there is little reason to suppose that a hypothetical Clinton administration would've acted more decisively than Trump did. Democratic-leaning editorialists condemned Trump's

[46] Worobey, Michael, Jonathan Pekar, Brendan B. Larsen, Martha I. Nelson, Verity Hill, Jeffrey B. Joy, Andrew Rambaut, Marc A. Suchard, Joel O. Wertheim, and Philippe Lemey. "The Emergence of SARS-CoV-2 in Europe and North America." *Science (New York, N.Y.)* 370, no. 6516 (October 30, 2020): 564–70. https://doi.org/10.1126/science.abc8169.

prohibition on travel to China in January February 2020, many disparaging the move as a predictable and xenophobic reflex, rather than a necessary public health precaution. More broadly, the global public health regime enacted since the International Health Regulations of 2005 has discouraged blanket prohibitions on travel. Instead, the operative mantra for global health professionals is that "disease knows no borders."[47] But however appealing global solutions may be in the abstract, the fact remains that global efforts have made little headway against Covid-19 during 2019-20.

Far more effective have been initiatives enacted to stem the spread of Covid-19 at the local, regional, and national scales. Those countries that have fared best have been those that have closed their borders, adopting solutions familiar to the nineteenth-centery European officials who battled cholera in an earlier era of advanced globalization. Especially striking has been the success of New Zealand, whose charismatic prime minister Jacinda Ardern enacted a near-total prohibition on international arrivals in late March 2020. As of writing, the prohibition remains in place. New Zealanders are able to return home, but they must submit to a 14-day quarantine in a government facility. For everyone else, New Zealand is closed. As a result of the strict precautions she has enacted at the borer, Ardern has been able to exclude Covid-19 from New Zealand and to relax other measures, such as social distancing and mask wearing.

Other countries, such as Australia, South Korea, and Taiwan have enacted policies resembling New Zealand, achieving impressive containment of Covid-19 in the process. Indeed, as the pandemic has persisted into 2021 and new variants of the SARS-CoV-2 virus have emerged, countries that formerly eschewed territorial biosecurity have tightened their controls. During the first months of 2021, members states of the European Union have tightened border controls, as has the new Biden administration in the United States. Israel has closed down its borders, even as

[47] For example: Deepa Jahagirdar, "Coronavirus and the Cruel Cost of Closing Borders," (January 2020) <https://www.thinkglobalhealth.org/article/coronavirus-and-cruel-cost-closing-borders>.

it has made remarkable headway in the vaccination of its population. But at this point in the pandemic, border-based restrictions are rather less effective than they were at the beginning, when cases were sparse.

Border-based biosecurity of course entails costs. For open-market economies with large tourist sectors, like New Zealand, the curtailment of international travel imposes real economic pain. Shutting down the borders also raises the dilemma of how borders can ever be reopened without exposing the population to a version of the predicament that inhabitants of the New World faced as a result of the Columbian Exchange, namely exposure to pathogens to which they have no natural resistance. Fortunately for New Zealand and for Prime Minister Ardern, the remarkable success of vaccine research during 2020, including the novel mRNA-based vaccine technology, now affords the prospect of an exit from national isolation via immunization-based, rather than naturally acquired, immunity.

And so far as the United States is concerned, we should remember that the costs of Jacinda Ardern’s strategy would be more tolerable for the United States than for New Zealand. The U.S. economy is the largest, most diversified, and least trade-dependent of the world’s major economies: exports represent about 12 percent of our country’s GDP, compared to a global average of 30 percent. Shutting down international passenger travel and sustaining that shutdown for 1-2 years would do significant harm to the US economy, for sure. At the same time, the United States is in a better position to weather the adverse consequences of a self-imposed national isolation than almost any other economy on earth. And, in the end, the operative question is not whether a border-based biosecurity would entail costs but how those costs compare to the costs of inaction at the borders?

Returning to the broad panorama, history points to the utility, even the necessity, of territorial solutions to the problem of biosecurity. Covid-19 forces us to recognize, as HIV/AIDS should have done, that the modern West’s escape from pestilence in the twentieth century was to some extent an illusion.

Much as Edward Jenner once grasped, our advance from band-scale lifeways to an integrated global modernity has, in some ways, increased our susceptibility to eruptions of epidemiological catastrophe. Medical science has, of course, made significant headway against infectious disease, conquering some of history’s nastiest pathogens, but other infectious diseases, including old scourges like malaria, remain live perils. And, as SARS-Cov-2 has shown, nature remains amply capable of springing new surprises upon us. Infectious disease, it follows, is a serious threat with which we have little choice but to grapple.

Mired, as we are, in the midst of Covid-19, we should remember that the threat could be far worse. For all the trauma it has caused, SARS-Cov-2 is hardly the deadliest virus our species has even confronted. Imagine a severe influenza pandemic on a scale of the scale of 1918: an H1N1 virus that killed ~2.5 percent of the people it infected and that concentrated its mortality effects among among the youngest and the healthiest, not the eldest and the sickest. There is no fundamental reason why such a pandemic could not recur. If our bungling of Covid-19 is any indication, the consequences would be devastating.

So what can be done to minimize the effects of the next pandemic? Covid-19 has exposed specific policy failures, but the current crisis has also exposed underlying shortcomings in the national defenses. Put simply, the United States in 2020 was unable to secure the homeland against an inbound pathogen. To the extent that infectious disease had been a priority for national security policy before Covid-19, disease was a priority to be confronted elsewhere. This approach produced some policy successes, including the Obama administration’s proactive campaign against Ebola in 2013-16, which helped to keep the epidemic in West Africa. But offshore preemption is insufficient as a strategy for containing diseases so infectious as SARS-Cov-2, which leaps from host to host through respiratory transmission, and which originated not in the African hinterland but in Wuhan, a global city that direct flights connect to other cities worldwide.

What would a border-based framework for containing biosecurity do? Rather like the Austrian Military Border of the eighteenth-century, such a solution would need to include both physical controls, which could be raised and lowered depending upon the threat level, and a forward-based bio-intelligence system to provide advance warning of inbound threats. Like the terrorism alert system that has been improvised since 9/11, a national system for border-based biodefense could include gradated levels of precaution, to be operationalized depending upon the level of threat. An elevated but not extreme level of threat might, for example, require passengers bound for the United States to submit to nasal swabs that could be processed and analyzed before their flight arrived on American soil. The highest level of threat would require a complete shutdown of international travel, with special procedures enacted to permit the repatriation of citizens and travel undertaken for only the most essential of purposes.

Such a solution is unappealing. The prospect of government swabbing inbound travelers and imposing blanket prohibitions on arrivals during phases of elevated threat is difficult to reconcile with liberal commitments to the maximization of movement and exchange across borders. But Covid-19 has shown us how dangerous a globalizing world can be, requiring us to enact adaptations and sacrifices far costlier than what a territorial biodefense strategy might have required.

Instead of retreating into our nation-states, we have retreated into our households, fragmenting our society into shards and fragments smaller than the Paleolithic bands that hunting-and-gathering ancestors inhabited. Properly enacted, a territorial-based system for biodefense might present an alternative. Combined with robust international mechanisms for effecting epidemiological surveillance and alert, border-based biosecurity would function in manner akin to sealable bulkheads on an ocean liner. On a normal basis, the doors would be open, permitting free movement across borders. But penetration the hull by a novel pathogen would precipitate the precautionary closure of the international borders, or bulkhead doors, accelerating the containment of the novel threat.

Such an approach should not preclude the parallel deployment of international strategies, including offshore preemption. The United States has been a generous supporter of collaborative, global efforts to control and eradicate infectious diseases, such as smallpox. Washington can continue to confront epidemic disease overseas even as it expands its capacities to effect biodefense at home. Had the United States managed to secure its borders against Covid-19 in January 2020, American scientists and pharmaceutical companies could still have be engaged in the search for a vaccine; the safe restoration of international travel and commerce would have depended upon their doing so. But to the extent that new epidemics can be contained within borders, the effective deployment of treatments and vaccines may be easier to accomplish insofar as demand will be contained.

Today, we today reeling not only from a novel pathogen’s assault but also from the fundamental disconnect between globalization and governance that the pandemic has exposed. Our world is integrated insofar as people and goods, capital and information, ideas and fashions today move across borders with remarkable, even unprecedented, ease. Yet political authority, in our globalized world, remains territorial, located within nation-states. To espouse global solutions to global dilemmas, such as infectious disease, is not a necessity but a choice. After all, the globalization system that we have built since the 1970s is a social construct, not a fact of nature, and governments are amply capable of impeding movement across borders if they so choose. For the United States, a country whose political architecture inhibits the national government’s capacity to effect vigorous public health initiatives at home, the border is a site of rare opportunity, a venue where the federal government can act proactively.

History shows that nation-states have in the past responded to the perils of epidemic catastrophe through the enactment of border controls, through the implementation restrictions intended to protect insiders through the temporary exclusion of outsiders. For sure, solutions like the fifteenth-century Italian quarantine or the Austrian Military Border unappealing may affront

our liberal sensibilities, much as the affronted the liberal sensibilities of nineteenth-century British critics, who assailed border-based controls as an affront to both liberty and commerce. But as we confront the ravages of Covid-19, the self-evident incapacities of our global public health regime to manage a global pandemic, and the shortcomings of our domestic U.S. response, we might find ourselves pondering the question: what, if anything, is the alternative?