

The German Plague: Contagion and Conspiracy in First World War America

Cameron James Givens 💿

Department of History, The Ohio State University, Columbus, OH, USA

During the First World War, the American home front was awash with conspiracy theories alleging that internal German enemies were intentionally spreading disease among both human and animal populations, most egregiously in the case of the influenza epidemic. While false, these stories nonetheless revealed Americans' shifting relationships to the environment, warfare, and the federal state. They channeled immediate fears over what type of war, and what type of enemy, the nation faced, as well as deeper, Progressive-era anxieties related to the dramatic expansions of government and scientific expertise in American life. As an unexplored vernacular archive, they underline how the war permitted individuals to discuss, denounce, and contest state and scientific authority at this moment in the early twentieth century.

During the First World War, the United States became the target of an unprecedented biological attack from unseen foreign agents—or so many Americans claimed, at least. Widespread stories alleged that German spies and sympathizers were secretly distributing disease to livestock in rural areas beginning in 1917 and, by the following year, that those internal enemies were behind the incredible lethality of the influenza epidemic, intentionally inoculating recruits in training camps and spreading germs across the country in food, medicine, and peddled goods. How could so many people, separated by space and time, draw connections between their wartime enemies and the period's epizootic and epidemic outbreaks? How might their conspiracies, which on the surface made frequently outlandish and without exception specious claims about germs and Germans, have also vocalized deeper anxieties over public health and individual autonomy?

Answering these questions requires briefly contextualizing how the war was actively shifting Americans' relationships to the environment and the managerial authority of the state at this moment in the early twentieth century. At the time, popular knowledge of microbial pathogenicity was still an uneven, relatively recent, and by no means complete development. It was only within most Americans' lifetimes that the germ theory of disease had migrated from the realm of scientific discourse to the household, transforming personal hygiene practices, public health, and the nature of the collective anxiety around unseen agents of infection.¹ As such, the First World War unfolded in a climate where the microbial world's dangers were more feared than

¹These developments are well explained in Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, MA, 1998), 6, 9–10; Andrew Cunningham and Perry Williams, eds., *The Laboratory Revolution in Medicine* (New York, 1992); and Nancy Tomes, "The Making of a Germ Panic, Then and Now," *American Journal of Public Health* 90, no. 2 (Feb. 2000): 191–8. For earlier notions of contagion that focused on the possibility of atmospheric infection, see Alain Corbin, *The Foul and the Fragrant: Odor and the French Social Imagination* (Cambridge, MA, 1986).

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understood—a trend that it only accelerated. The war not only demonstrated how microbiology might be progressively weaponized but also permitted an unprecedented spread of deadly pathogens along modern transportation networks, resulting in seemingly incomprehensible epizootic outbreaks across the American home front and an alarming influenza pandemic that would eventually claim 675,000 lives in the United States and at least 50 million worldwide.² In short, by transforming both the perception and ecology of infectious disease, the conflict nurtured a social imagination of illness as a sinister product of foreign origins, priming many Americans to accept conspiratorial explanations for what seemed an otherwise inexplicable prevalence of germs in their lives at war.³

Of course, their concerns over disease had long been entangled with fears of how far the government might go to eradicate it at the expense of individual rights, so it was unsurprising that the conflict also renewed and sharpened existing debates over the state's public health powers. After all, the war was undoubtedly driving a radical expansion of government officials' and scientific experts' abilities to surveil, regulate, and ensure the health of both human and animal populations across the home front.⁴ The Army Medical Department assumed the right to inspect, quarantine, and vaccinate the millions of young men whom the war had suddenly brought within its purview; cooperative extension agents connected to the Department of Agriculture further extended the authority of scientists and federal bureaucrats into rural backwaters, where they could ensure small farmers obeyed sometimes onerous measures to control epizootic disease; and intelligence agencies and wartime legislation empowered the government to quash effectively anything that ran counter to its campaign to ensure a healthy, war-ready population.⁵ In response, some Americans questioned anew—oftentimes in the language of conspiracies, one of the only options available to them under the strictures of wartime—what they had long considered to be public health authorities' egregious incursions into their personal

³For rumors' ability to offer rational interpretations of events in times of confusion and instability, see the foundational studies by Gordon W. Allport and Leo Postman, *Psychology of Rumor* (New York, 1947); and Tamotsu Shibutani, *Improvised News: A Sociological Study of Rumor* (Indianapolis, 1966); as well as the more recent work of Nicholas Stargardt, "Beyond 'Consent' or 'Terror': Wartime Crises in Nazi Germany," *History Workshop Journal* 72, no. 1 (Oct. 2011): 190–204.

⁴Broader histories of state building that framed this development include Stephen Skowronek, *Building a New American State: The Expansion of National Administrative Capacities, 1877–1920* (New York, 1982); and Theda Skocpol, *Protecting Soldiers and Mothers; The Political Origins of Social Policy in the United States* (New York, 1992); while the specific role of wartime is best covered in Christopher Capozzola, *Uncle Sam Wants You: World War I and the Making of the Modern American Citizen* (New York, 2008). For the increasingly central place of expertise and scientific knowledge in American society, see Burton J. Bledstein, *The Culture of Professionalism: The Middle Class and the Development of Higher Education in America* (New York, 1976); Robert H. Wiebe, *The Search for Order, 1877–1920* (New York, 1967); and Steven J. Diner, *A Very Different Age: Americans of the Progressive Era* (New York, 1998), ch 7.

⁵The wartime growth of the Army Medical Department is described in Carol R. Byerly, *Fever of War: The Influenza Epidemic in the U.S. Army during World War I* (New York, 2005); and Mary C. Gillett, *The Army Medical Department, 1865–1917* (Washington, DC, 1995), 377–404. The expansion of federal authority into rural areas during the war is discussed in David B. Danbom, "The Agricultural Extension System and the First World War," *The Historian* 41, no. 2 (Feb. 1979): 315–331. The era's repressive climate is detailed in Stephen M. Kohn, *American Political Prisoners: Prosecution under the Espionage and Sedition Acts* (Westport, CT, 1994).

²Good summaries of the birth of modern biological warfare campaigns, in which Germany deployed agents to several Allied nations (the United States among them) to infect livestock with anthrax and glanders, include Mark Wheelis, "Biological Sabotage in World War I," in *Biological and Toxin Weapons: Research, Development, and Use from the Middle Ages to 1945*, eds. Erhard Geissler and John Ellis van Courtland Moon (New York, 1999), 35–62; and Erhard Geissler, *Biologische Waffen – Nicht in Hitlers Arsenalen: Biologische und Toxin-Kampfmittel in Deutschland von 1915–1945* (Münster, Germany, 1999). The role of modern war in circulating disease is discussed in Tait Keller, "Mobilizing Nature for the First World War: An Introduction," in *Environmental Histories of the First World War*, eds. Richard P. Tucker et al. (New York, 2018), 13. Casualty numbers for the influenza pandemic are provided in Niall P. A. S. Johnson and Jürgen Müller, "Updating the Accounts: Global Mortality of the 1918–1920 'Spanish Influenza' Pandemic," *Bulletin of the History of Medicine* 76, no. 1 (Spring 2002): 111, 115.

affairs.⁶ In accordance with the substantial literature on rumors' reflection of deeper popular mentalities, their tales thus appear as varied attempts to accept, negotiate, critique, or reconfigure their existing relationships to distant sources of state and scientific power.⁷

To answer our opening questions, then, this article argues that individuals' disease rumors worked on two levels, helping them to express both their immediate wartime fears related to German spies and their longer-term concerns over the growing authority claimed by government officials and scientific experts to control contagion in American life. Using a wealth of unstudied intelligence reports, Committee on Public information records, newspapers, and government publications, its sections reconstruct the conspiratorial stories of two alleged germ plots, both grounded in a shared anxiety over public health measures that the war was actively bolstering. More specifically, the article's first part focuses on allegations of German agents' deliberate infection of animal populations in rural areas, suggesting a connection between those tales and longer-standing resistance to both agricultural modernization and the federally mandated disease eradication measures it enforced. Its second section then shows how stories related to the spread of influenza used the threat of German spies to contest the growing government- and expert-driven management of human health that, already underway for decades and carried out primarily through the technique of vaccination, was ballooning during the unprecedented wartime mobilization.

Overall, the story told here aims to enrich our understanding of the social history of disease in the early-twentieth-century United States—especially during the neglected period of the influenza pandemic—and, in doing so, to highlight new ways in which wartime Americans chafed at their era's faith in science and the state to ameliorate national life. Historians have shown that diseases are both biological realities and cultural productions that articulate societies' values and attitudes, especially the threat they perceive to their social, cultural, and physical boundaries in the face of some pathological "other."⁸ And yet, while abundant research has demonstrated how outsiders frequently became the preferred scapegoats of nativist rhetoric and public health discourses amid outbreaks of epidemic disease earlier in the century, neither that scholarship nor the more specialized work on the influenza pandemic has given the wartime conspiracies of enemy disease plots serious attention or analysis.⁹ In contrast, this article

⁶Resistance to government intervention in the control of animal diseases is described in Alan L. Olmstead and Paul W. Rhode, *Arresting Contagion: Science, Policy, and Conflicts over Animal Disease Control* (Cambridge, MA, 2015). For the backlash against the management of disease in humans, see above all the arguments of the antivaccinationists provided in James Colgrove, *State of Immunity: The Politics of Vaccination in Twentieth-Century America* (Berkeley, CA, 2006).

⁷For rumors as an indication of prevailing mentalities, see David Coast and Jo Fox, "Rumor and Politics," *History Compass* 13, no. 5 (May 2015): 224; Luise White, *Speaking with Vampires: Rumor and History in Colonial Africa* (Berkeley, CA, 2000); Anand A. Yang, "A Conversation of Rumors: The Language of Popular *Mentalités* in Late Nineteenth-Century Colonial India," *Journal of Social History* 20, no. 3 (Spring 1987): 485–505; and Georges Lefebvre, *The Great Fear of 1789: Rural Panic in Revolutionary France*, trans. Joan White (New York, 1973). Recent work that has emphasized rumors' capacity to shape, rather than just respond to, events includes Vanessa Freije and Rachel Nolan, "Interpretive Challenges in the Archive: An Introduction," *Journal of Social History* 55, no. 1 (Fall 2021): 1–6; and S. A. Smith, "Talking Toads and Chinless Ghosts: The Politics of 'Superstitious' Rumors in the People's Republic of China, 1961–1965," *American Historical Review* 111, no. 2 (Apr. 2006): 405–427.

⁸Good overviews of the cultural history of disease include Arien Mack, ed., *In Time of Plague: The History and Social Consequences of Lethal Epidemic Disease* (New York, 1991); Terence Ranger and Paul Slack, eds., *Epidemics and Ideas: Essays on the Historical Perception of Pestilence* (New York, 1992); and the pioneering work of Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (London, 1966).

⁹For the association of disease with immigrants and racial others, see Alan M. Kraut, *Silent Travelers: Germs, Genes, and the "Immigrant Menace*" (New York, 1994); Howard Markel, *When Germs Travel: Six Major Epidemics that Have Invaded American Since 1900 and the Fears They Have Unleashed* (New York, 2004); Nayan Shah, *Contagious Divides: Epidemics and Race in San Francisco's Chinatown* (Berkeley, CA, 2001); Natalia Molina, *Fit to Be Citizens? Public Health and Race in Los Angeles, 1879–1939* (Berkeley, CA, 2006);

reconstructs for the first time how those disease rumors added to the home front's fear of spies and, further, how they constituted a heretofore unrecognized form of resistance to the rapid growth of government and scientific authority that marked the Progressive era generally and the war years in particular.¹⁰ Overall, it strives to pull the historical gaze down to the untold story of those Americans who, in a time of crisis, turned their animosity inward, toward the state, science, and modernity itself.

Epizootics and the Agents of Modernity in Rural America

In late 1917, cattle on Texas ranges began to fall ill, exhibiting fevers, swollen tongues, and labored breathing in the days before their death. C. F. Drake, the secretary of the Weatherford Chamber of Commerce, scribbled off a letter to the Department of Justice to relay the strange reports he was receiving from local farmers: the animals were "walking about in the early morning, apparently sound," but were "dead by noon the same day." The bodies, he continued, "upon being cut open, offer no explanation of the death." When confronted with such strange and disconcerting circumstances, he looked to the one thing that seemed capable of explaining the unexplainable. "It seems plausible," he suggested, "that it is entirely possible the work of enemy agents striking thus at the nation's meat supply."¹¹ Elsewhere in the state, particularly western counties where cattle were dying by the hundreds, a similar fear of the internal German enemy had taken hold. Some ranchers claimed that their cattle were being "hypodermised [sic] by German sympathizers" in their vicinity, while others began to stand guard over water holes to prevent poisoning.¹² Although the ephemeral nature of rumor guarantees that the vast majority of the era's claims of deliberately infected cattle would leave no trace in the historical record, those that remain in contemporary newspaper reporting and government intelligence files suggest that such talk had in fact been commonplace in other states since early that summer-from Colorado to California, South Dakota to Alabama-and would continue through the duration of the war.¹³ That the stories were repeated for over a year across the American home front presents an unacknowledged—and certainly unsolved-puzzle in the history of the First World War and the

Alexandra Minna Stern, "Buildings, Boundaries, and Blood: Medicalization and Nation-Building on the U.S.-Mexico Border, 1910–1930," *The Hispanic American Historical Review* 79, no. 1 (Feb. 1999): 41–81; and John McKiernan-González, *Fevered Measures: Public Health and Race at the Texas–Mexico Border, 1848–1942* (Durham, NC, 2012). Brief allusions to the claims of German disease-spreaders can be found in Nancy K. Bristow, *American Pandemic: The Lost Worlds of the 1918 Influenza Epidemic* (New York, 2012), 77; Tom Quinn, *Flu: A Social History of Influenza* (London, 2008), 141; John M. Barry, *The Great Influenza: The Story of the Deadliest Pandemic in History* (New York, 2004), 343–4; and Alfred W. Crosby, *America's Forgotten Pandemic: The Influenza of 1918*, 2nd ed. (New York, 2003), 47.

¹⁰For a good overview of the multifaceted backlash against the Progressive agenda, see Michael McGerr, *A Fierce Discontent: The Rise and Fall of the Progressive Movement in America* (New York, 2003), 301–10. The contestation over expanding government power during the war itself can be found in Capozzola, *Uncle Sam*, ch 5; and David M. Kennedy, *Over Here: The First World War and American Society* (New York, 1982).

¹¹C. F. Drake to Department of Justice, Dec. 11, 1917, in report by Louis de Nette, "In re: Suspicious Death of Cattle," Dec. 19, 1917, file 33713, Investigative Records Relating to German Aliens ("Old German" Files), 1915–1920, microfilm publication M1085, Investigative Case Files of the Bureau of Investigation, 1908–1922, Fold3.com [hereafter given simply as OG file #], Records of the Federal Bureau of Investigation, 1896–2008, RG 65, National Archives and Records Administration, College Park, MD [hereafter NARA].

¹²Report by J. E. Bernard, "In re: Alleged Plot to Poison Cattle in West Texas," Apr. 22, 1918, OG 33713, RG 65, NARA; "Cattle Killed by Poison," *Washington Post*, Nov. 25, 1917, 3.

¹³See, for example, George Philip to Department of Agriculture, May 5, 1917, OG 12659, RG 65, NARA; "Plot Is Suspected to Poison Cattle," *San Francisco Chronicle*, June 3, 1917, 33; report by V. F. Kilborn, "Spread of Anthrax—German Matter," Aug. 3, 1917, OG 12659, RG, NARA; "Hint Plot to Kill Cattle," *Washington Post*, Oct. 20, 1917, 11; H. H. Johnston to John E. Raker, Mar. 12, 1918, OG 12659, RG 65, NARA; report by W. A. Weymouth, "In re: Miss Hildagarde Benson," Oct. 31, 1918, OG 322073, RG 65, NARA.

early-twentieth-century United States more broadly. How could so many Americans, scattered throughout the nation's vast rural backwaters, no strangers to disease among their livestock, become convinced that their sick and dying animals were victims of a secret German plot to decimate the country's agricultural resources? The answer requires placing the period's conspiracy theories within both the immediate context of the war and the deeper social, economic, and political upheavals in rural life that both preceded and outlasted it. As we will see, the advent of total war may have produced profound shifts in the incidence and meaning of disease among animals, but the cultural productions Americans mobilized to make sense of their changing world also continued longer traditions of resistance to state and scientific power in rural life.

It is important to first understand how the war itself was driving the circulation of disease that such many Americans could reasonably believe that they were witnessing something unfamiliar, if not downright malicious. Although it announced the arrival of modern, industrialized combat, the conflict also retained some familiar features of earlier engagements-among them a reliance on animals as a source of power and food. Dwindling supplies of horsepower caused the British and French armies to pull heavily on their imperial and trans-Atlantic trade networks, looking largely to the United States, whose equine population had burgeoned since midcentury to nearly 25 million by 1900.¹⁴ American exports of beef, both fresh and canned, also skyrocketed during the period 1915–1919, increasing nearly ninefold in annual average value from those of the preceding five years.¹⁵ Taken together, these increased foreign demands on the American livestock industry created significant challenges for domestic suppliers, not the least of which involved gathering and transporting so many animals while mitigating the spread and onset of disease. Undoubtedly, many of the inexplicable symptoms and deaths Americans witnessed were not a result of enemy agents' machinations but simply of shipping and consolidating so many animals of diverse geographic origin. A Department of Agriculture Farmer's Bulletin informed readers in 1918, for example, that outbreaks in cattle populations of the acute infectious disease hemorrhagic septicemia had been "associated with the shipment of animals from one point to another by rail." The cattle, it continued, became "highly susceptible to infection" after their immunity was "lowered as a result of the rigors of transit."¹⁶ The symptomology of hemorrhagic septicemia-fever, swollen tongue, difficulty breathing-certainly mirrored that which Texas farmers were periodically reporting to federal investigators; and, indeed, it emerged as the primary etiological culprit for that initially mysterious plague in parts of Texas when a Bureau of Animal Industry inspector found that the deaths had ceased after widespread vaccination against it.¹⁷ Ironically, even as that diagnosis offered a rational explanation for the sickened livestock, it only furthered others' conspiratorial imaginations, such as the local veterinarian assisting with the cases around Abilene, Texas, who, according to government investigators, claimed that the disease had "been introduced in the U.S. in

¹⁴Ann Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge, MA, 2008), 166. Well before its neutrality expired, the United States mobilized its animals for war, supplying some 500,000 horses to the French and more than 700,000 horses and mules to the British between 1914 and 1917. See Gene Marie Tempest, "The Long Face of War: Horses and the Nature of Warfare in the French and British Armies on the Western Front" (PhD diss., Yale University, 2013), 92; Graham Winton, *Theirs Not to Reason Why: Horsing the British Army, 1875–1925* (Solihull, UK, 2013); and Phil Livingston and Ed Roberts, *War Horse: Mounting the Cavalry with America's Finest Horses* (Albany, TX, 2003).

¹⁵Federal Reserve Board, Federal Reserve Bulletin, October 1919 (Washington, DC, 1919), 956.

¹⁶U.S. Department of Agriculture, Farmer's Bulletin No. 1018: Hemorrhagic Septicemia, "Shipping Fever of Cattle" (Washington, D.C., 1918), 1.

¹⁷Report by J. E. Bernard, "In Re: Alleged Plot to Poison Cattle in West Texas," May 14, 1918, OG 33713, RG 65, NARA. Another of the Bureau's inspectors, after visiting a group of cattle supposedly infected with hemorrhagic septicemia, instead placed the blame on environmental factors, noting that extreme drought conditions in the western part of Texas made cattle more likely to feed on improper types of vegetation in the absence of pasture grass and, thus, more susceptible to plant poisoning. See Dr. H. Grafke to Chief, Bureau of Animal Industry, May 11, 1918, OG 214463, RG 65, NARA.

the past two years from Germany.^{*18} Clearly, domestic agriculture had become entangled within a new constellation of relationships linking animals, warfare, and disease, leaving many average Americans struggling to interpret and explain the results.

An urge to blame German agents for the heightened disease incidence (which again, in hindsight, was a rather predictable consequence of the war's logistical requirements) shaped Americans' responses to sickness in equine populations, as well. By autumn 1914, inland depots including the British remount offices in St. Louis, Kansas City, Chicago, Denver, and Fort Worth were collecting thousands of horses and sending them by rail to eastern ports, where they were held before shipment to Europe. These animals' anatomy made them particularly vulnerable to respiratory illness during periods of prolonged transport: their confinement in crowded railcars or the holds of ships often prevented them from stretching their necks down and clearing their airways, which allowed purulent secretions to accumulate in their lower respiratory tracts.¹⁹ Although noncontagious, this "shipping fever," as it was generically known, could be fatal, and some could not resist suspecting foul play. A man from Boise, Idaho, for example, whose horses had recently perished, confessed to be "at a loss to find any reason for the poisoning ... unless it was the work of German agents, who might have taken exception to his furnishing horses for the use of the allied forces."20 Furthermore, grouping together numerous animals before and after the period of transport also contributed to the spread of contagious respiratory diseases, like equine influenza and distemper (also called "strangles"). The epizootics often triggered widespread alarm, like one case in eastern Indiana where the rapid spread of distemper unleashed rumors of an enemy attack; for their part, veterinarians futilely sought to restore calm, insisting, according to a local newspaper, that it was "entirely due to natural causes," not "the German spy plot."²¹

Of course, Americans' stories of intentionally sickened livestock were a product not only of the reality they were witnessing but also of the contemporary national obsession with the threat of German spies and saboteurs.²² In a totalized conflict where every cog of society contributed to victory, anything that interrupted the nation's war machine—accidental fires in factories, explosions in munitions depots, or even a sick horse—could be (mis)attributed to the work of pro-German forces. While they had no immediate basis for suspecting that animal diseases were a dimension of the domestic sabotage campaign (none of the contemporary exposés of the enemy's covert operations within the United States even mentioned the topic), news from the international arena seemed to signal that biological warfare had become a distinguishing feature of Germany's arsenal.²³

Notably, alongside sensational accounts from Europe of Germany's soldiers poisoning wells or its aviators dropping typhoid-infected candies to children, there appeared the legitimate story—finally made public by the U.S. State Department in September 1917—of its earlier

¹⁸Report by J. E. Bernard, "Alleged Plot to Poison Cattle in West Texas by the Hemorrhagic Septicemia at Abilene, Texas," Apr. 18, 1918, OG 214463, RG 65, NARA.

¹⁹Haranne L. Raidal, Daria N. Love and G. D. Bailey, "Effects of Posture and Accumulated Airway Secretions on Tracheal Mucociliary Transport in the Horse," *Australian Veterinary Journal* 73, no. 2 (Feb. 2006): 45–49.

²⁰Report by P. E. Marrinan, "Re—Poisoned Horses," Aug. 31, 1917, OG 12659, RG 65, NARA.

²¹"Horse Disease May Be Caused by Hun Agents," *Richmond Palladium and Sun-Telegram*, Apr. 12, 1918, 10. ²²The fear of internal enemies gripped many Allied nations. See, for instance, Bruno Cabanes, *August 1914: France, the Great War, and a Month that Changed the World Forever,* trans. Stephanie Elizabeth O'Hara (New Haven, 2016); Panikos Panayi, *The Enemy in Our Midst: Germans in Britain during the First World War* (New York, 1991); and Eric Lohr, *Nationalizing the Russian Empire: The Campaign against Enemy Aliens during World War I* (Cambridge, MA, 2003).

²³Published accounts of German sabotage operations from the time that made no mention of biological warfare included William H. Skaggs, *German Conspiracies in America* (London, 1915); John Price Jones, *America Entangled: The Secret Plotting of German Spies in the United States and the Inside Story of the Sinking of the Lusitania* (New York, 1917); and French Strother, *Fighting Germany's Spies* (New York, 1918).

plot against neutral Rumania's animal shipments.²⁴ When the latter had declared war on Austria-Hungary in the summer of 1916, it had expelled the Central Powers' diplomats; searching the grounds of the German Legation shortly thereafter, Rumanian officials had discovered boxes buried in the garden containing explosives and vials of yellow liquid, soon determined to contain anthrax and glanders, the latter a highly contagious zoonotic disease primarily affecting equine populations. An accompanying typewritten note in German had read: "Enclosed four vials for horses and four for cattle. To be employed as formerly arranged. Each vial is sufficient for 200 head. To be introduced, if possible, directly into the animals' throats; if not, into their fodder."25 American papers quickly broadcast news of that stunning "microbe plot," raising the obvious question of whether the United States had unknowingly suffered similar attacks during its own period of neutrality-whether, as one paper put it, "it might be shown the Teutons had tried to spread disease in America as one of her insidious means of hampering war work."²⁶ Such extrapolation of German misdeeds backward in time and into the domestic sphere caused some Americans to brand as enemy attacks past epizootics that had appeared relatively unremarkable at the time of their occurrence, such as the particularly severe outbreak of hoof-and-mouth disease that had struck the Midwestern and Eastern states in late 1914.²⁷ One man, for example, wrote to the editor of the Providence Journal to state that the disease was in fact "planted here at the beginning of a war when our live stock [sic] would feed the allies + neutrals and could not be obtained by the Teutons." Citing the events in Rumania where there were "enough glanders and anthrax germs buried in the grounds of the German embassy to kill all the cattle of that friendly country and to spread these terrible diseases," he concluded that "it is not surprising that they should introduce the German horse or the hoof + mouth disease in our country while we were friendly towards them."28 Here were the peculiar workings of the conspiratorial imagination, in which past disease outbreaks assumed, in retrospect, a malicious enemy intention and became a powerful indicator of the Germans' presumed sabotage in the present and future.

Although those suspicions remained purely speculative at this time, and would not be confirmed until years later, they happened to be largely correct. The Germans had, in fact, pursued the first modern campaign of biological warfare against the neutral United States (and other nations including Rumania, Norway, Argentina, and most likely Spain) between summer 1915 and autumn 1916. While the use of dangerous pathogens had not been entirely unfamiliar in military history, the development of microbiology in the late nineteenth century had allowed for the isolation and production of biological agents in a more systematized and deadly fashion.²⁹ Harnessing the power of these scientific advancements, a German-American medical

²⁸P. Russel to Editor of *Providence Journal*, Sept. 25, 1917, OG 12659, RG 65, NARA, emphasis in original.
²⁹An early instance is described in Elizabeth A. Fenn, "Biological Warfare and Eighteenth-Century North America: Beyond Jeffery Amherst," *Journal of American History* 86, no. 4 (Mar. 2000): 1565.

²⁴For the candy rumors, see, among many others, "German Aviators Drop Poisoned Candy," *New York Times*, May 27, 1917, 78; "Aero Drops Poison Candy; Kills Prince," *Washington Post*, June 15, 1917, 3; and "German Aviators Throw Death Candy to Babies," *Los Angeles Times*, Nov. 18, 1917, sec. II, 7. Talk of Germany having systematically poisoned French wells during periods of retreat was also widespread; see, for instance, "U.S. Plans for War Satisfy British," *The Sun*, Apr. 8, 1917, sec. 1, 4; and "To the Farmers of America," *Brinkley Argus*, Oct. 12, 1917, 8.

²⁵For the plot's publication, which came in the form of official communications between the Rumanian Ministry of Foreign Affairs, the American Chargé d'Affaires at Jassy, and Secretary of State Robert Lansing, see War Office, General Staff, Daily Review of the Foreign Press 2, no. 26, Oct. 24, 1917, 651, file 763.72/7734, microfilm publication M367, Records of the Department of State Relating to World War I and Its Termination, 1914–1929, Fold3.com, Decimal File, 1910–1929, General Records of the Department of State, RG 59, NARA. For more, see Ernest H. Latham, Jr., "Biological Warfare: Horror, Propaganda, and Scandal in the German Legation," in *World War I and the Birth of a New World Order: The End of an Era*, eds., Ioan Bolovan and Oana Mihaela Tămaş (Newcastle upon Tyne, UK, 2020), 37–52. Although Romania is now the standard spelling in English, previously Rumania and Roumania were used.

²⁶Carl D. Groat, "German Spy Intrigues Are Fully Disclosed," Daily Capital Journal, Sep. 24, 1917, 1.

²⁷"German Plot Bared in Cattle Plague," The Sun, Sep. 26, 1917, 2.

doctor in the employ of the German secret service had sailed to the United States in September 1915 with vials of Bacillus anthracis and Pseudomonas mallei, the causative agents of anthrax and glanders, respectively; by the following month, this agent, Anton Dilger, had established a basement laboratory in Chevy Chase, Maryland, and was busy cultivating the bacilli.³⁰ Another German agent, Friedrich Hinsch, would periodically collect the vials of microbes and then hand them off to stevedores he had recruited in Baltimore, New York, Newport News, and Norfolk; they, in turn, would infect horses and mules in the military shipping depots by swabbing their noses or injecting them with a syringe.³¹ The massive outbreaks that the conspirators hoped would appear on ships making the transatlantic voyage to Europe seem to have never occurred and, while some animals were certainly sickened and killed, the overall impact was apparently negligible. Moreover, the secrecy of this early attempt at bacteriological warfare meant that its impact on public opinion-that is, its role in fueling the wartime tales of infected livestock-was nonexistent. At the time, the plot was fully unknown to both the American public and intelligence community (a Bureau of Investigation interview with Dilger in August 1917 even produced the conclusion that he was "not a man who would be guilty of any traitorous acts towards this country"), and thus could have played little role in cultivating the contemporaneous disease rumors.³²

With few concrete reasons to suspect that their own animals would be directly threatened, Americans' anxiety over infected livestock on the home front must, in the end, have drawn from deeper cultural wells. More specifically, their wartime conspiracies should be situated within the broader context of rural hostility to outsiders' interference, which had been developing against the growing intrusion of the federal state, in general, and its public health measures, in particular, into American agricultural practices.

The decades leading up to the war were marked by heightened efforts to improve American farming methods, largely through the application of scientific research to agriculture—known as agricultural extension. While attempts to deliver new concepts and techniques to the countryside reached back more than a century, the period from the mid-nineteenth to the early twentieth century witnessed an increasing push by agricultural experts and the federal government to assume the responsibility for modernizing America's farmers.³³ By the early twentieth century, the preferred method for disseminating these findings had become demonstration work, in which agricultural agents—belonging to either the land-grant colleges or, eventually, to the United States Department of Agriculture—took the information directly to farmers, encouraging them to apply the improved methods to their own fields with only supervision and technical guidance. While many progressive farmers around the country welcomed such advice, many others remained unconvinced by, or downright resistant to, the idea that the scientific experts and Washington bureaucrats touting "book farming" had anything to teach them about the land and labor they had known their entire lives.³⁴ The war years only accelerated the

³⁰See Robert L. Koenig, The Fourth Horseman: One Man's Secret Mission to Wage the Great War in America (New York, 2006); Dwight R. Messimer, The Baltimore Sabotage Cell: German Agents, American Traitors, and the U-Boat Deutschland During World War I (Annapolis, MD, 2015), 16–18; and John F. Dooley, Codes, Ciphers and Spies: Tales of Military Intelligence in World War I (New York, 2016), 180–1.

³¹Mixed Claims Commission, United States and Germany, Opinions and Decisions in the Sabotage Claims Handed Down June 15, 1939, and October 30, 1939 and Appendix (Washington, DC, 1940), 93; Wheelis, "Biological Warfare Before 1914," 42–3.

³²Report by George W. Lillard, "Re: Dr. Anton C. Dilger (Alleged German Agent)," Aug. 1, 1917, OG 33415, RG 65, NARA.

³³For a history of agricultural extension work prior to the Smith-Lever Act, see Roy V. Scott, *The Reluctant Farmer: The Rise of Agricultural Extension to 1914* (Urbana, IL, 1970); and Alan I. Marcus, *Agricultural Science and the Quest for Legitimacy: Farmers, Agricultural Colleges, and Experiment Stations, 1870–1890* (Ames, IA, 1985). For a longer treatment of the federal policy toward southern agriculture, see Pete Daniel, *Breaking the Land: The Transformation of Cotton, Tobacco, and Rice Cultures since 1880* (Urbana, IL, 1985).

³⁴Gilbert C. Fite, *Cotton Fields No More: Southern Agriculture, 1865–1980* (Lexington, KY, 1984), 84. Farmers' stubborn individualism was documented in the decade prior by the Commission on Country Life, appointed by

expansion—and deepened the resentment—of federal influence in rural American life. When the Smith-Lever Act passed in 1914, it nationalized the cooperative demonstration model, providing for a nationwide system of county extension agents; when the United States joined the war several years later, the task of mobilizing American agriculture landed squarely in the laps of these agents, many of whom were already in place and were, oftentimes, the only government representatives in areas that remained institutionally and bureaucratically embryonic.³⁵ As their numbers expanded rapidly (nearly 1,000 counties gained an agent during the war), extending federal bureaucratic machinery into places where it had not previously existed, so too did their roles.³⁶ Finding many rural people indifferent or downright opposed to the war, the agents frequently extended their mobilizing activities well beyond agricultural matters, issuing work or fight orders to transients, conducting propaganda campaigns, organizing Red Cross and YMCA drives, leading local councils of defense, organizing Home Guards, and even forcing unpatriotic community members to buy Liberty bonds.³⁷ Unsurprisingly, many small farmers resented this federal intrusion into their lives, personified by outsiders considered thoroughly out-of-touch with local needs and desires.³⁸

Amid this growing sensitivity to the application of modern, scientific principles to the nation's rural backwaters, the control of animal diseases had emerged as a particularly contested issue. The resulting confrontation between small farmers and the federal state was perhaps nowhere more evident than in the long-running campaign to eliminate the scourge of babesiosis from cattle populations, better known as Texas fever. Although endemic to southern cattle, in which it merely caused reduced weight and milk production, the disease was extremely deadly to cattle from uninfected regions, thereby effectively precluding much of the South's participation in northern cattle markets or its importation of improved breeds.³⁹ When scientists with the USDA's Bureau of Animal industry finally solved its mysterious etiology in 1893, discovering that ticks carried the protozoa responsible for the disease, they wasted no time in trying to induce farmers to apply scientific methods of eradication.⁴⁰ After the uneven compliance with, and mixed results of, county and state efforts, the federal government assumed direct control of the eradication program in 1906, and federal agents began inspecting herds, educating farmers, and helping establish centers for cattle dipping.⁴¹ Dipping, which soon became compulsory at two-week intervals throughout the tick-growing season, involved walking herds of cattle through a narrow trench filled with a solution of crude oil (or, from 1910

President Theodore Roosevelt. See Report of the Country Life Commission. Special Message from the President of the United States Transmitting the Report of the Country Life Commission, Feb. 9, 1909, S. Doc. 705, 60 Cong. 2nd sess. (Washington, DC, 1909), 49. In southern states, some also worried that any education of black farmers could unsettle the racial and economic status quo. See Debra A. Reid, Reaping a Greater Harvest: African Americans, the Extension Service, and Rural Reform in Jim Crow Texas (College Station, TX, 2007), 36.

³⁵Danbom, "The Agricultural Extension System," 315, 320.

³⁶William A. Lloyd, U.S. Department of Agriculture Miscellaneous Circular No. 59: County Agricultural Agent Work Under the Smith-Lever Act, 1914–1924 (Washington, DC, 1926), 54.

³⁷Danbom, "The Agricultural Extension System," 320-1.

³⁸See H. B. Fuller to C. B. Smith, Oct. 2, 1917, and report by George F. Soter, Jr., "In re: Farmers Union or O. E. Wood, Neutrality Matter," Dec. 22, 1917, both in OG 66306, RG 65, NARA.

³⁹The etiology and typical pathology of cattle fever (which included a distended liver and gallbladder, erosion of the fourth stomach, watery blood, and a spleen enlarged as much as five times its normal size) can be found in Theobald Smith and F. L. Kilborne, U.S. Department of Agriculture, Bureau of Animal Industry, Bulletin No. 1: Investigations into the Nature, Causation, and Prevention of Texas or Southern Cattle Fever (Washington, DC, 1893); and Tamara Miner Haygood, "Cows, Ticks, and Disease: A Medical Interpretation of the Southern Cattle Industry," Journal of Southern History 52, no. 4 (Nov. 1986): 551–64.

⁴⁰For more on the growing regulatory power of the Bureau of Animal Industry, see Jimmy M. Skaggs, *Prime Cut: Livestock Raising and Meatpacking in the United States, 1607–1983* (College Station, 1986), 82.

⁴¹Claire Strom, "Texas Fever and the Dispossession of the Southern Yeoman Farmer," *Journal of Southern History* 66, no. 1 (Feb. 2000): 56, 60.

onward, arsenic) at a concentration sufficient to kill the ticks but, theoretically, leave the cattle unharmed.

To the scientists, bureaucrats, and Progressive elites who implemented the regimen, it was rational management of animal health and the agricultural economy at its finest, and it promised to better integrate the South into the capitalist, national mainstream.⁴² To small farmers, however, the resultant expansion of federal authority, forcible imposition of agricultural science, and increased visibility of government agents-among them agricultural demonstration agents trying to create a favorable attitude toward cattle dipping-represented a threatening intrusion by outsiders into their daily lives. More specifically, they were unable or unwilling to reconcile the regional benefits of a blanket public health policy with the individual burdens they felt it imposed. While shared by all, the expense of eradication (in the form of dipping taxes) only benefitted large-scale, commercial operations that planned to sell their stock north of the federal quarantine line. Some yeomen who had few cattle solely for personal use found the expense so high that they simply abandoned their livestock holdings completely.⁴³ Others blamed the arsenic-based solution itself for injuring or killing their cattle; for a small-scale farmer, especially a tenant, the loss of even one cow could mean economic ruin, followed by a slide into crop peonage and cotton dependency.⁴⁴ For these rural people, the federal management of animal disease in the form of mandatory tick eradication represented an affront to the social, economic, and political life of American yeoman and, more pressingly, an intolerable assault on their livelihoods and private property.

Crucially, the national mobilization for war was only increasing the pressure on farmers to comply with the federally mandated disease eradication measures, further pitting the national good of public health initiatives against what many felt to be their inviolable personal rights. Not only did Congress make additional funds available as an emergency war measure to safeguard the domestic production of beef but, on the local level, adherents of a progressive agrarian ideology wasted little time in framing acceptance of the federal disease control measures as a form of mandatory patriotism.⁴⁵ "What a contrast," one newspaper editorialized, between those engaged in tick eradication "and the clandestine prowling of the few, disgruntled, nearsighted insidious malcontents and pro-Huns, who are in certain parts of Georgia, going about making nocturnal forays and with dynamite destroying the work of the progressive hands and brains of the state."46 Sabotaging a dipping vat, one of the most violent forms of resistance, was an act many considered tantamount to treason, effectively doing the work of the enemy. As some denounced such disobedience as a form of pro-German disloyalty, others employed an alternative tactic, framing farmers as good agricultural soldiers in the war on ticks. "The building of a dipping vat is somewhat similar to digging a trench in the warfare against the huns," commented another paper. The ticks "are immediately put into about the same condition as soldiers poisoned by mustard gas.... While the allied soldiers are carrying on and making encouraging gains along the battle front, the Florida cattle owners on many sectors are also carrying on and killing millions of the cattle ticks."⁴⁷ An agricultural magazine chimed in, adding that "the South has come to view the tick as a pro-German.... This adds to the pleasure of submerging the tick in an arsenic bath." Evident in both strategies was how effectively the war all

⁴²Claire Strom, Making Catfish Bait Out of Government Boys: The Fight Against Cattle Ticks and the Transformation of the Yeoman South (Athens, GA, 2009), 3.

⁴³Joshua Specht, *Red Meat Republic: A Hoof-to-Table History of How Beef Changed America* (Princeton, NJ, 2019), 151, credits this campaign with dispossessing many small farmers of their cattle.

⁴⁴Strom, "Texas Fever," 50, 69, 73.

⁴⁵A. K. Sessoms, President, Georgia Land Owners' Association to Earl M. Donalson, U.S. Attorney, Southern District of Georgia, May 1918 [no date specified], OG 8000-188861, RG 65, NARA.

⁴⁶"The Tick's Doom Sealed," Atlanta Constitution, Apr. 25, 1918, 8.

⁴⁷"Practically Every County Not Already Released from Tick Fever Quarantine Has Made Appropriations for Building Dipping Vats," *The Ocala Banner*, Sept. 6, 1918, 8.

but compelled adherence to disease control measures, reframing a debate about the limits, goals, and victims of agricultural modernization into a one-side issue of loyalty to a nation at war.

Amid the mounting national focus on, and interference in, rural Americans' farming practices, the tick eradication campaign became a primary locus of rural resistance to the federal mobilization of agriculture. There is some evidence that the spy scare may have provided farmers with the rhetorical ammunition for obliquely criticizing the dipping requirement, as in one case in Marianna, Florida, where a rumor spread that the man "in Government employ in this County in connection with tick eradication work is extremely pro-German" and "in sympathy with the German government." Such a story suggested, perhaps, a sort of imagined equivalence between government agents and German agents, who, through their nonetheless distinct mechanisms of illicit poisonings and mandated cattle dipping, both had the capacity to "work destruction to the meat supply of our Country."⁴⁸ While farmers' opposition most often involved a refusal to comply with dipping regulations, it could also turn violent, as some burned barns, murdered federal inspectors, and dynamited dipping vats in the dead of night. As one North Carolina farmer of the eradication program stated:

The people do not want it and I don't think the Government can force it on us. I don't think it is a good thing, and, besides, we are not bothered with the Texas Tick here. It is a waste of time to dip cattle every two weeks. Two or three tanks have been blown up around here and the rest will be blown up, if the Government attempts to force this proposition on us.⁴⁹

His words betrayed a clear dislike of the tick control measures, specifically, and of the forcible imposition of federal authority, more broadly, threatening violence if Washington insisted on pushing the issue. Indeed, some areas experienced particularly fierce anti-dipping activity during the war. The head of the Bureau of Animal Industry in Georgia, for example, conveyed his tally to federal investigators in early 1918: twenty-three vats destroyed the previous August, seventeen more in November, and another eighteen several months later.⁵⁰ Although historians do not have a uniform name for the campaign of destruction against dipping vats, which unfolded sporadically and unevenly across southern states mostly in the 1910s and early 1920s, their work in various state and local contexts has shown it to be tantamount to a lowintensity agrarian revolt against enforced modernization.⁵¹

It is important to recognize that the tensions between the federal government and the nation's agrarian margins—between small farmers' traditional autonomy and the modernizing impulses of distant policy makers, between local knowledge and scientific expertise, between the good intentions of sweeping public health measures and their sometimes undue burden on individuals—had created the cultural context in which the tales of German disease-spreaders could not only emerge but thrive in the period 1917–1918. This was precisely because such tensions, which had increased apace for several decades alongside the expansion of agricultural extension, intensified dramatically under the demands of war. If it had already dawned on farmers that, rather than passing them by or leaving them in state of cultural isolation or

⁴⁸R. H. Buford to John L. Neeley, Apr. 15, 1918, OG 160357, RG 65, NARA.

⁴⁹Report by Harry M. Adams, "In re: Anti-Draft and Anti-Administration Talk," Aug. 18, 1917, OG 49838, RG 65, NARA.

⁵⁰William M. MacKellar to L. J. Baley, May 6, 1918, OG 8000-188861, RG 65, NARA.

⁵¹See, for example, Claire Strom, "Editorials and Explosions: Insights into Grassroots Opposition to Tick Eradication in Georgia, 1915–1920," *Georgia Historical Quarterly* 88, no. 2 (Summer 2004): 197–214; J. Blake Perkins, "The Arkansas Tick Eradication Murder: Rethinking Yeoman Resistance in the 'Marginal' South," *Arkansas Historical Quarterly* 70, no. 4 (Winter 2011): 363–97; and Brooks Blevins, *Cattle in the Cotton Fields: A History of Cattle Raising in Alabama* (Tuscaloosa, AL, 1998), 62.

technological backwardness, modernity would plunge violently into their affairs, upending traditional ways of life in the name of unstoppable progress, then the war only confirmed their fears by increasing the presence of federal bureaucrats, scientists, and county agents to a degree previously unknown. Perhaps, when they told stories of outsiders coming to their fields and infecting their livestock, they were speaking not only about the immediate threats of war: the Germans were, after all, only the newest agents of modernity within a long-term and seemingly inexorable disappearance of an old world. Although the rumors of poisoned livestock did not begin and spread only because of the wider resistance to government interference in rural life and control of disease, neither did they remain entirely divorced from those trends, which were reaching a high point during the war. The same fears and frustrations expressed in rumors of German agents peppered farmers' statements about the federal state before, during, and after the conflict—sentiments, in fact, that were soon being shared by many others.

The German Plague

When the influenza virus began to spread in 1918, it reorganized Americans' fears of an enemy plot aimed at animals—as well as their underlying wariness over political and health authorities—into new sets of stories across the home front. Even as some tales traced the pandemic's origin to things like enemy submarines, tainted medication, or traveling salesmen, the majority alleged that pro-German nurses and doctors were injecting men in training camps with influenza germs. These rumors revealed once again how the war could ignite Americans' ire against public health measures—this time against the army's compulsory vaccination programs that both reflected and deepened the preceding decades' increasing governmental and scientific regulation of the individual body.

Although the first epidemic outbreak appeared in the spring of 1918, it had remained sufficiently mild to avoid diverting Americans' focus from the war in Europe. By fall, however, when the second and far deadlier wave of the disease plunged societies around the globe into crisis, the severity of the situation was impossible to ignore. The influenza was deeply frightening for both its symptomatic intensity and its choice of victims: displaying a worrying tendency to cause pneumonia, the disease seemed to especially target, along with the very young and old, young adults from twenty to forty years of age, who accounted for nearly half the deaths in the United States.⁵² Young, healthy individuals, at the apex of their physical fitness, could be prostrate with symptoms of high fever, intense irritation in the upper respiratory tract, and severe aches in legs, backs, and heads within several hours-and be dead within as little as two days.⁵³ From August to November, as the days cooled and the nights darkened, the influenza unleashed a concentrated assault, claiming an estimated 90 percent of its total worldwide victims; in October 1918 alone, it killed nearly 200,000 Americans, roughly quadrupling the country's combat deaths for the entire war period in a single month.⁵⁴ For many Americans with a deep-seated hatred for their German enemy, its speed and severity were enough to suspect that the global pandemic somehow belonged to their adversary's seemingly endless capacity for evil. "It spread from the Atlantic to the Pacific in six weeks," a San Antonio man wrote to a local judge in that month. "Could it do so unless it was assisted by German agents? This is merely suspicion on my part, but can be investigated and if true, can prevent the Huns from poisoning a nation."55

⁵²Bristow, American Pandemic, 3.

⁵³Crosby, America's Forgotten Pandemic, 39.

⁵⁴Anne Rasmussen, "The Spanish Flu," in *The Cambridge History of the First World War*, vol. III: *Civil Society*, ed. Jay Winter (Cambridge, UK, 2013), 337.

⁵⁵J. L. Hobson to Judge Hinson Thomas, Oct. 25, 1918, in report by William Neunhoffer, "In re: Information Submitted by J. L. Hobson," Nov. 6, 1918, OG 8000-305626, RG 65, NARA.

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This suspicion that the enemy was infecting the nation found expression in several sorts of rumors, including that the disease had been intentionally distributed by German U-boats or that it entered bodies through the consumption of an infected substance, especially aspirin made by the German dye and pharmaceutical company Bayer.⁵⁶ Others considered unknown travelers to be the primary vector of the disease's spread, more or less reiterating stories from the previous year alleging that peddlers selling infected bandages had been sickening communities.⁵⁷ A New Jersey woman wrote federal investigators in early October to "say that this epidemic of influenza may be spread all over the country by peddlers." She reported that there were "on an average of one strange peddler in two weeks stop at my house ... and so many of them are Germans."58 Although her story centered on the traveling salesmen's allegedly German appearance to support the theory that they were agents of the Kaiser, her mistrust was grounded in their habitual movement itself. Their social nomadism, which took them door to door across much of the country, became a plausible explanation for the disease's rapid transmission. Many others shared the theory, like a doctor from San Antonio who alerted federal officials to a traveling preacher he believed to be "an alien enemy going over the country liberating some kind of poisonous gas at these gatherings giving rise to what we call the 'Flu.'" It struck him as likely "that thousands of just such men are traversing the country doing the same thing I believe this man to be doing."59 It seemed there was a deep connection between strangers' social and epidemiological risk: their status as outsiders not only threw their loyalty into question but effectively presented them as vessels for the unfamiliar and the foreign into otherwise safe communities.

One of the most common theories for the rapid spread of influenza, however, was that pro-German nurses and doctors were injecting it into men in training camps. In Minneapolis, for example, federal investigators recorded a woman's claim "that it was being talked in the neighborhood that a Doctor and nurse were arrested" at a training camp "for spreading influenza germs."⁶⁰ Another writer alerted the Department of Justice to what "is being rumored near Boston." She summarized the story's typical form: "the teller has a 'friend' who has another friend who is a nurse at Camp Devens during this influenza epidemic. This nurse says that a doctor at Devens has recently been shot for having injected the <u>influenza germ</u> instead of the antitoxin."⁶¹ Indeed, such second- or third-hand reports poured into federal offices from around the nation—from Georgia, Long Island, and Massachusetts to Pennsylvania, New Jersey, and North Dakota—all claiming that the plot was unfolding at

⁵⁶See, for instance, report by Charles A. Robinton, "In re: Andreas F. Christian," Oct. 31, 1918, OG 8000-77412, RG 65, NARA; H. E. Trumbull to National Directors, American Protective League, Oct. 25, 1918, OG 8000-305626, RG 65, NARA; Harvey O'Higgins, memorandum for Marlin Pew, Oct. 11, 1918, "Germans' Lie Dead" folder, box 1, Letters to Harvey O'Higgins Giving Information on German Propaganda Lies, May-Oct. 1918 [hereafter Letters to O'Higgins], Records of the Committee on Public Information, RG 63, NARA; and report by J. E. B. Holladay, "In re: Alleged Spreading of Spanish Influenza at Norfolk, Virginia," Oct. 14, 1918, OG 8000-305626, RG 65, NARA.

⁵⁷For example, see letters contained in OG 26436, RG 65, NARA; "Germans in Plot to Spread Tetanus?" *New York Times*, July 19, 1917, 4; "Spreading Infection Charged to Germans," *Atlanta Constitution*, July 20, 1917, 9; and "Court Plaster Germ Carrier; Causes Death?" *Chicago Daily Tribune*, July 19, 1917, 3. Emily K. Abel, *Tuberculosis and the Politics of Exclusion: A History of Public Health and Migration to Los Angeles* (New Brunswick, NJ, 2007) notes a similar "tramp scare" related to the introduction of tuberculosis in Los Angeles in the late nineteenth century.

⁵⁸Mrs. Edwin J. Griffiths to Bureau of Investigation, Oct. 7, 1918, OG 8000-305626, RG 65, NARA.

⁵⁹Report by William Neunhoffer, "In Re: Dr. Herbert Yeuell. Alleged Spreading of Influenza," Feb. 21, 1919, OG 348841, RG 65, NARA. See also, report by Robert C. Newman, "Re: Gordon Goldsmith – Reported German Agent Spreading Disease Germs," Apr. 4, 1918, OG 171608, RG 65, NARA.

⁶⁰Report by J. P. Arnoldy, "In re: Alleged German Propaganda about Minneapolis," Oct. 16, 1918, OG 73323, RG 65, NARA.

⁶¹Winifred M. Dodge to Department of Justice, Oct. 9, 1918, OG 8000-305626, RG 65, NARA, emphasis in original.

the training camp nearest the writer.⁶² Although cantonments were an obvious site of influenza's spread-packing into poorly ventilated quarters numerous men, many of whose rural upbringings had given them fewer immunities than those raised in urban areas-some Americans sought to explain why the disease reached epidemic proportions among soldiers before civilians by speculating that German agents had infiltrated the camps' medical staff.⁶³ "There was bound to be something wrong when the boys begun [sic] to die by the hundreds," at the nearby camp, as one woman put it. She blamed the camp's head nurse, calling her "a German spy" and the "cause [of] more than half of the influenza in the camp."⁶⁴ The shared assertion that something had to be wrong, especially when so many young men at the peak of their virility were succumbing to the disease, clearly underlay much of the period's unfounded speculation. When Americans' still rudimentary conception of germs could not explain the reality around them, they turned to what could and, unsurprisingly, frequently settled on the German enemy as the source of society's ills. "It has not swept from place to place, starting at a given point, as epidemics usually do," one Indiana man wrote to the editor of the New York Times. "Rather has it broken out simultaneously, and with deadly virulence, in army training camps from the Pacific to the Atlantic." Why not, he asked, "forthwith call the present scourge of influenza the German plague?"65

Although a widely shared claim, it is worth emphasizing that this particular formulation of the Spanish flu's origins was often repeated by mothers, dovetailing a broader, gendered discourse about the government's (in)ability to protect the nation's young men in the course of their military service. Indeed, the war period was marked by widespread fears that the bottle and the brothel would morally and physically devastate the generation of the young men consolidated in training camps, sites which embedded themselves in the popular imagination as spaces of disease and danger even before the influenza pandemic.⁶⁶ In calling hundreds of thousands of young men to service, the Army had presented itself and its auxiliaries as a kind of familial surrogate that, through military training, discipline, and wholesome recreation, promised to keep young men safe and morally pure: government propaganda even claimed that the institution's medical service and its Red Cross affiliates might serve as "a foster parent to these young soldiers of America."⁶⁷ Part of this work entailed providing what Nancy Bristow has termed "feminine refuge within the male environment of the training camp" and, soon enough, matrons of the Young Women's Christian Association's (YWCA) Hostess Houses were providing a moral pressure that was both envisaged by authorities and understood by soldiers to be motherly.⁶⁸ If the government was promising in no uncertain terms to recreate the disease-free space of the home through its gendered language of moral purity and its small army of stand-in mothers, then the devastating impact of influenza in training camps struck many as an unacceptable failure, if not downright betrayal.

Indeed, when mothers shared among each other or repeated to officials those rumors claiming that a friend or acquaintance (usually removed by several degrees, as was often the case with false information) had lost her boy while he was under government care, they were talking implicitly about the state's failure to tend properly to the nation's sons. By personifying influenza's lethality in the figures of the disloyal army medical staff, many stories distilled

 ⁶²Numerous examples contained in OG 8000-305626, RG 65, NARA; and Letters to O'Higgins, RG 63, NARA.
 ⁶³Byerly, *Fever of War*, 75–6; Crosby, *America's Forgotten Pandemic*, 56.

⁶⁴H. C. R. to D. G. Westman, Oct. 6, 1918, in report by E. T. Needham, "In re: H. C. R. Reports Spy Nurse Cause of Influenza in Camp," Oct. 31, 1918, OG 8000-305626, RG 65, NARA.

⁶⁵"Letters to the Times on Subjects of Public Interest," New York Times, Oct. 20, 1918, 34.

⁶⁶See, for instance, Nancy K. Bristow, *Making Men Moral: Social Engineering during the Great War* (New York, 1996); and Allan M. Brandt, *No Magic Bullet: A Social History of Venereal Disease in the United States Since 1880* (New York, 1985). The "Spanish flu" was a common misnomer for the 1918 influenza epidemic.

⁶⁷Committee on Public Information, National Service Handbook (Washington, DC, 1917), 105.

⁶⁸Bristow, Making Men Moral, 49.

amorphous feelings of anxiety and grief into pointed critiques of the government's dereliction of its necessary duties. In her letter, one woman repeated the story of a Mrs. Hull, a friend of an acquaintance, who arrived at Camp Custer to see her son Clarence: apparently "a nurse came in" and "asked her to leave the room, saying that a doctor wished to inject something into her son." When she came back, "her son was in spasms, his teeth chattering, his flesh quivering, in which condition he remained until his death." A telling detail ended the letter: "The case looks suspicious to say the least. Two young men either side of Clarence Hull died of the disease; neither received an injection of anything and died quietly."⁶⁹ Ultimately, the tale centered on the severity of Clarence's suffering relative to other patients, a discrepancy which it could explain only by the mysterious injection, performed, rather suspiciously, in the mother's absence. Ultimately, someone had to be blamed for the deeply upsetting nature of his death: the disloyal doctor, the complicit nurse, or, better yet, the inattentive and negligent institution of the Army itself, which had allowed such an incident to unfold on its watch.⁷⁰

Some writers articulated what they felt were the government's broken promises even more clearly. A San Francisco woman, Mrs. Childs-MacDonald, for example, castigated the Department of Justice in April 1918, likely in reaction to the first wave of influenza which, albeit generally mild, was striking some Army training camps that spring.⁷¹ After citing an alleged case "where a German surgeon wearing the uniform of the United States killed thirty recruits ... by infecting them with the germs of Cerebo [sic] spinal meningitis instead of using the official vaccine for prophylaxis against typhoid," she wrote:

In giving my children to the Cause, they and I entered into a bargain with the Government; they, that they would fight, obey orders and act as faithful and honorable citizens. The Government, among other things, promised (by implication) that they would protect them at home from secret enemies, spies and traitors. The question now arises; has our Government given this protection which the bargain calls for? I claim it has not.⁷²

What she described was nothing less than a rupture in the binding social contract between citizens and the state, in which families would acquiesce to sending their children to war in return for certain assurances of protection.⁷³ To the many mothers whose sons perished not from enemy fire in the mud of France but from the invisible, internal enemy of the "German plague" in training camps, the government, as much as the enemy, bore responsibility.

It was no accident, then, that the rumors often revolved around the specific threat of vaccination, an issue which easily broadened narrow concerns for the safety of training camps' health protocols into much larger critiques of medical authority and the coercive role of the state. The required vaccinations for soldiers, which at the time included smallpox and typhoid, appeared in Americans' rumors as a primary etiological culprit for the pandemic: one report to

⁶⁹Julia Ball to Edwin H. Smith, Oct. 16, 1918 in report by Charles H. Smith, "In re: Spanish Influenza and Pneumonia," Oct. 23, 1918, OG 8000-305626, RG 65, NARA.

⁷⁰In reality, a subsequent report by the Division Intelligence Officer in reaction to the story undercut most of its details and suggested that the death was most likely due to a case of secondary meningitis. See Report by Charles A. Smith, "In re: Spanish Influenza and Pneumonia," Nov. 4, 1918, OG 8000-305626, RG 65, NARA.

⁷¹"Influenza, Haskell, Kansas," *Public Health Reports* 33, no. 14 (Apr. 1918): 502; John M. Barry, "The Site of Origin of the 1918 Influenza Pandemic and its Public Health Implications," *Journal of Translational Medicine* 2, no. 3 (Jan. 2004): 1–4.

⁷²G. Childs-MacDonald to Department of Justice, Apr. 18, 1918, file 9-5-34-1418, folder 9-5-34 sec. 18, box 11, Office of Alien Property Class 9 (European War Matters) Litigation Case Files, 1914–1959, General Records of the Department of Justice, RG 60, NARA.

⁷³For soldiers' own social contract with the government during this period, see Jennifer D. Keene, *Doughboys, the Great War, and the Remaking of America* (Baltimore, 2001).

federal investigators held, for example, "that the Germans were introducing the germs of Spanish Influenza by means of a vaccine which was being used on the soldiers and sailors," while another stated "the vaccine used in our army camps ... contains a chemical concoction of German manufacture placed there by Agents of the Hun."74 Although such claims undoubtedly reaffirmed the depths of German wickedness, their true target was the compulsory nature of the vaccines themselves, which formed the mechanism through which the enemy's plot was able to unfold with such deadly effect. Anti-vaccinationists, in fact, had been capitalizing on the expanded public concern over that exact issue since earlier in the year: a pamphlet circulated by the National Anti-Vivisection Federation, for example, "Why Is My Soldier Sick?" had answered its own question with "the fact that they have been pumped full of disease by compulsory serum inoculations and vaccinations!"75 Unable to excise their right to refusal, powerless to exert full control over what entered their bodies, the soldiers were, according to the circulating rumors, helpless victims not only of the Germans but of the state and scientific authorities who had effectively mandated their infection. Looking upon the Army Medical Department, which wielded both military and public health authority, including a right to vaccinate and quarantine the millions of young men brought suddenly under its control, some Americans clearly agreed that the potential of the state's unchecked, coercive power over the individual to be at least as frightening as anything the Germans could come up with.⁷⁶

In expressing a fear of the growing submission of the individual body to external authority, the vaccine rumors constituted a form of political speech that resonated with both long-term reactions to public health measures and the more immediate backlash witnessed during the Spanish flu. The emergence of public health in the United States up to that point had been a fragmented and halting affair, whose origins lay in the mid- to late-nineteenth-century formation of state boards of health and the work of sanitary reformers seeking to improve hygiene standards on a spectrum running from the kitchen to the metropolis.⁷⁷ As the Progressive era and the germ theory of disease coincided to make public health an increasingly institutionalized, professionalized, and centralized undertaking, however, a national outlook replaced local initiatives and shifted focus from the amelioration of physical environments to the scientific management of disease and the treatment of bodies.⁷⁸ Witnessing the rising power, and

⁷⁴Report by J. E. De Mund, "In re: Alleged Introduction – Spanish Influenza in Vaccine," Nov. 6, 1918, OG 8000-305626, RG 65, NARA; report by A. G. Adams, "In re: Alleged Introduction by German Agents of Spanish Influenza into Vaccine Used in Our Army Camps," Oct. 27, 1918, OG 8000-305626, RG 65, NARA.

⁷⁵National Anti-Vivisection Federation, "Why Is My Soldier Sick?" undated [1918], OG 8000-142843, RG 65, NARA.

⁷⁶For the expansion of the government's responsibility in the domain of public health, particularly through the Army Medical Department, see Byerly, *Fever of War*, 43–45; and John D. Grabenstein et al., "Immunization to Protect the US Armed Forces: Heritage, Current Practice, and Prospects," *Epidemiologic Reviews* 28, no. 1 (2006): 8. For concurrent debates over anti-typhoid vaccination in the British Army, see Anne Hardy, "Straight Back to Barbarism': Antityphoid Inoculation and the Great War, 1914," *Bulletin of the History of Medicine* 74, no. 2 (Summer 2000): 265–90.

⁷⁷Good overviews include Dorothy Porter, Health, Civilization, and the State: A History of Public Health from Ancient to Modern Times (New York, 1999); George Rosen, A History of Public Health (New York, 1958); and Barbara Gutmann Rosenkrantz, Public Health and the State: Changing Views in Massachusetts, 1842-1936 (Cambridge, MA, 1972). Work addressing the sanitarian movement, more specifically, includes John Duffy, The Sanitarians: A History of American Public Health (Chicago, 1990); Suellen Hoy, Chasing Dirt: The American Pursuit of Cleanliness (New York, 1995); Nancy Tomes, "The Private Side of Public Health: Sanitary Science, Domestic Hygiene, and the Germ Theory, 1870–1900," Bulletin of the History of Medicine 64, no. 4 (Winter 1990): 509–39; and Stanley K. Schulz and Clay McShane, "To Engineer the Metropolis: Sewers, Sanitation, and City Planning in Late-Nineteenth-Century America," Journal of American History 65, no. 2 (Sept. 1978): 389–411.

⁷⁸See Alan Marcus, "Disease Prevention in America: From a Local to a National Outlook, 1880–1910," *Bulletin of the History of Medicine* 53, no. 2 (Summer 1979): 184–203; Manfred Wasserman, "The Quest for a National Health Department in the Progressive Era," *Bulletin of the History of Medicine* 49, no. 3 (Fall 1975): 353–80; and Charles E. Rosenberg, *The Care of Strangers: The Rise of America's Hospital System* (Baltimore, 1987).

cooperation, of the administrative state and scientific experts, who had undoubtedly used public health reforms to sharpen their "medical gaze"—their capacity of knowing and regulating the health of the citizenry—to a greater degree than ever before, some Americans had sounded the alarm.⁷⁹ The issue of vaccination had produced a particularly fierce reaction in the decades immediately preceding the war, as a nascent anti-vaccination movement had coalesced into a powerful force for questioning both the virtue of the scientific and medical establishment and the right of the modern state to reach into arenas traditionally considered personal and private.⁸⁰

It was immediately clear that the influenza renewed and even deepened the ongoing backlash against public health measures, as Americans chafed under state and medical authority in a variety of ways: some flouted the ordinances mandating business closures or banning public gatherings; in San Francisco, thousands joined an Anti-Mask League to protest the mandated face coverings that they considered a form of government overreach; and thousands more, in what historians have largely failed to recognize as an important dimension of the period's culture of defiance, told and retold rumors about the possibility of vaccines themselves in driving the pandemic.⁸¹ Although the various influenza vaccines at the time were largely ineffective (it would be another decade before the discovery of the virus that acted as the disease's causative agent), they nonetheless found widespread use in some states, as officials inoculated tens of thousands of people with experimental products in what Nancy Bristow has called "a prophylaxis against fear rather than influenza."82 Amidst the numerous claims of enemy tampering-or worse, the government's unnecessary but performative exercise of its public health powers—it was clear that the injections ignited as many fears as they assuaged, however.⁸³ With reference to the influenza, one woman declared before a crowd: "The Government is doing this -Yes, the Government is doing this-just to give an excuse to introduce a new serum."⁸⁴ In driving the belief of the deliberately infected vaccine, the wartime internal enemy rumors created new ammunition for denouncing public health measures as ineffectual or even unsafe. Rumors linking the flu's mysterious emergence and intensity to the practice of vaccination itself ultimately served to sow doubt about the health, rights, and safety of the individual body as it came under the control of the scientific and medical establishment.

Even as state and public health authorities viewed the pandemic as an opportunity to mold individual behavior to the dictates of medicine—to leverage expert knowledge to solve the nation's ills—there were clearly those who drew the opposite conclusion. Their rebellion against

⁸⁰Colgrove, *State of Immunity*, 9–10, 47–9; Martin Kaufman, "The American Anti-Vaccinationists and Their Arguments," *Bulletin of the History of Medicine* 41, no. 5 (Sept. 1967): 463–78.

⁸³See, for instance, report by V. T. Bledsoe, "In Re: Henry Yenger, et. al, Possible German Disease Germs," Dec. 10, 1918, OG 8000-328207, RG 65, NARA.

⁸⁴Report by N. L. G., "In re: Jessica Cox Henderson," Oct. 10, 1918, OG 8000-142843, RG 65, NARA.

⁷⁹For the concept of the medical gaze, see Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception*, trans. A. M. Sheridan Smith (New York, 1973). For the power of twentieth-century medicine to survey and discipline society beyond the institutional space of the clinic, see David Armstrong, *Political Anatomy of the Body: Medical Knowledge in Britain in the Twentieth Century* (New York, 1983). For specific examples in the U.S. context, regarding the compulsory physical examination of workers and life insurance policy holders, respectively, see Angela Nugent, "Fit for Work: The Introduction of Physical Examinations in Industry," *Bulletin of the History of Medicine* 57, no. 4 (Winter 1983): 578–95; and Audrey B. Davis, "Life Insurance Companies and the Physical Examination: A Chapter in the Rise of American Medical Technology," *Bulletin of the History of Medicine* 55, no. 3 (Fall 1981): 392–406.

⁸¹For resistance to public health measures and the story of the Anti-Mask League, see Bristow, *American Pandemic*, 84–6, 111–15; and Brian Dolan, "Unmasking History: Who Was Behind the Anti-Mask League Protests During the 1918 Influenza Epidemic in San Francisco?" *Perspectives in Medical Humanities* 5, no. 9 (May 2020): 1–23.

⁸²Bristow, *American Pandemic*, 97. For a more detailed look at the program in a local context, see Nancy Rockafellar, "In Gauze We Trust': Public Health and Spanish Influenza on the Home Front, Seattle, 1918–1919," *Pacific Northwest Quarterly* 77, no. 3 (July 1986): 107–9.

expanding government and scientific authority could at times be brash, like a business refusing to close; it could be polemical, as in the case of the famous 1920 petition to President Wilson by the co-founder of the Anti-Vaccination League of America demanding the repeal of compulsory vaccination for military personnel on the grounds that the practice had likely caused the Spanish flu; it could be symbolic, like the refusal to wear a mask in public; but, most often, it was quieter, unfolding in the invisible world of rumor and gnawing away, almost imperceptibly, at the collective social trust in institutions, knowledge, and the common good.⁸⁵ In the end, many Americans' confidence in medical science and the benefits of state intervention may have been one of the final casualties of the Spanish flu—or, shall we say, of the German plague.

Conclusion

In recovering some of the most common disease rumors on the U.S. home front, this article has attempted to shed new light on when and why so many Americans believed and spread conspiracy theories. One of its primary interventions has been to apply the perspective of the social history of disease, showing how those stories helped Americans come to terms with the imagined presence of internal enemies in their society. The "German spy hysteria," denounced by contemporary observers and some historians since, starts to appear far less hysterical when we grasp the perceived stakes of the conflict for some Americans. It mattered little that they were half a world away from the battlefields when they believed enemies within could introduce frightening diseases into their households at any moment; indeed, as they watched their livestock drop dead from unknown illnesses or witnessed the ravages of an influenza virus the likes of which they had never before encountered, the various tales of an ongoing German plot appeared worth not only believing but also urgently retelling.

Crucially, Americans' disease rumors also proliferated during a marked growth of government power and scientific experts' role in managing society: this article has suggested that those stories became a meaningful way of discussing and contesting those trends. If, as James Sparrow has argued in the context of the Second World War, studying rumors can allow historians to "glimpse the coalescence of a national political culture around the mundane transactions between a society and its government girding for war," then the use of unscripted, coded, and oftentimes anti-statist political language in the form of false stories already belonged to American culture by the second decade of the twentieth century, as the rumors of the First World War period clearly attest.⁸⁶ Various aspects of mobilization increased the presence of government in everyday life, as officials took an increasingly active role in managing agricultural production, encouraging (if not compelling) individuals to conform to the war effort, and assuring the health of men entering the army: all those techniques of control shaped the stories that Americans told of contaminated bodies, both animal and human. Indeed, the war's rumors force us to reappraise the actors, methods, and timeline of the popular backlash against modern government power. As this article has shown, rural folk, southern farmers, soldiers' families, and anti-vaccinationists—a whole of range of people usually studied in relative isolation from one another-shared in the common vernacular of disease rumors to speak about their changing relationship to the state, scientific expertise, and modernity more broadly by this point in the early twentieth century.

And yet, in speaking of germs and illness, the conspiracies were often explicitly rejecting science as much as they were denouncing internal enemies or critiquing the government. Even as early twentieth-century Americans held the knowledge and tools to understand the

⁸⁵Charles M. Higgins, Horrors of Vaccination Exposed and Illustrated: Petition to the President to Abolish Compulsory Vaccination in Army and Navy (New York, 1920), 28–9.

⁸⁶James T. Sparrow, *Warfare State: World War II Americans and the Age of Big Government* (New York, 2011). For the increasing appearance of conspiracy theories concerning the federal government over the last century, see Kathryn S. Olmsted, *Conspiracy Theories and American Democracy, World War I to 9/11* (New York, 2009).

proliferation of wartime disease for what it was, and many of them did so, many others fell back on discounted theories of disease transmission, blamed outsiders or those seen as "others," and directed their fury onto modern technologies ranging from the dipping vat to the vaccine. It is a dilemma highlighted but not resolved by this history that conspiracy theories can be at once a language of the powerless, voicing concerns and fears that struggle to find expression otherwise, and stubborn repositories of ignorance that fray at the nation's necessary social, cultural, and political bonds—often with deadly consequences. A century on, it is a dilemma that has grown only more pressing. For their part, historians have crucial roles to play in engaging more deeply with conspiracy as a category of analysis, for the full range of political speech that Americans have mobilized to understand, challenge, accept, and reject various aspects of modern life only becomes audible when we realize that people have long fallen back on false news as a language to express what they feel to be most true.

Cameron Givens (he/him) is a PhD candidate at The Ohio State University who studies the dynamics of fear and rumor on the American home front of the First World War, especially their roles in fostering a more restrictive, race-based vision of American citizenship.