In 1834, Charles Darwin had heard a lot about lice, saying, “These disgusting vermin are very abundant in Chiloe: several people have assured me that they are quite different from the Lice in England: they are said to be much larger and softer (hence will not crack under the nail) they infest the body even more than the head.” Moreover, he recounted that an English surgeon on a whaling ship had told him that lice-infested natives from the Sandwich Islands could not free themselves from their invaders, “which were blacker and different from these, or any lice, which he ever saw.” But if the lice tried to infest the English sailors on board, the insects died in three or four days. Apparently, these foreign lice had a particular palate—Europeans would not do. “If these facts were verified their interest would be great,” mused Darwin. “Man springing from one stock according [to] his varieties having different species of parasites.”

In fact, some nineteenth-century naturalists and anthropologists thought that the varieties among lice might indeed mean that man, rather than evolving from a single origin (monogenesis), was instead the product of pluralism (polygenesis), a natural or divinely ordered series of creative acts producing different human races. Many, including some scientists, used polygenesis to argue for differences among racial types, that Caucasians were better than “Mongoloids” and “Negroids”—a position that could justify imperialism and slavery, invoking entomology in support of superiority.

In the nineteenth and twentieth centuries, such judgments wove race and lice into a complex and sordid history, encompassing the annihilation of millions of Jews, homosexuals, and the mentally challenged. From its sixteenth- and seventeenth-century role as a satire on human presumption, the cultural meaning of lice took a more sinister turn. The state of being lousy, laughable
to a seventeenth-century satirist like Heinsius or annoying to the increasingly urbane and sophisticated Samuel Pepys, became by the nineteenth century evidence of not just social but also racial inferiority. Disgust turned into dehumanization. As the so-called civilized British gentleman and lady became increasingly concerned about manners and appearance, they could tolerate no association with their one-time familiar, the louse, dismissing entire nations, groups, and continents as inferior, as, in fact, lousy.

Not surprisingly, the English and Americans linked lice to the Irish and to African slaves. Although not yet understanding that lice spread typhus, the genteel nevertheless connected sickness with the parasite. Typhus drove mortality rates during the Irish Potato Famine and permeated jails and prisons, and indeed anyplace where clean clothes were an impossible dream. Thousands of Irish died of typhus in so-called coffin ships awaiting admission to Canada in 1848. An 1852 article in *Punch* compared the Irish with West Indian “Negroes” and warned that they would “crawl like wingless vermin over the country.”

The English considered the Irish, and indeed any foreigners, to be dirty and lice ridden, and thus savage. Cleanliness, over the nineteenth century, became an essential element of civilization. Puritan and Methodist teachings, public policy, private enterprise, and domestic economy all saw hygiene as partnered with virtue—and nothing signified filth as much as lice. The subject of lice became so taboo that the entomologist Alpheus Spring Packard (1839–1905) noted in 1870, “the creature itself has been banished from the society of the good and respectable.” But Packard admitted, making a moral as well as a social observation, “Then have we not in the very centres of civilization the poor and degraded, which are most faithfully attended by these revolting satellites!”

Darwin saw the same connection in “idiots,” or children with microcephaly: “One idiot is described as often using his mouth in aid of his hands, whilst hunting for lice. They are often filthy in their habits, and have no sense of decency; and several cases have been published of their bodies being remarkably hairy.”

Moral judgment fueled many popular accounts of the lice ridden. Explaining pubic lice, one American doctor warned that upper-class men “too frequently became affected from intercourse with females whose virtue is as loose as their habits are dirty.” He added, “Some writers have attempted to prove that the head-louse varies according to the races of men to which it is attached,” a point somehow made less often about pubic lice. At the be-
ginning of the twentieth century, another moralist condemned “the modern woman” wearing wigs “cut from the heads of peasants in foreign lands,” thus catching their foreign head lice.

In this mindset, dirtiness and filth were considered to breed immorality and criminality. After the articulation of germ theory in the 1870s and 1880s, some concluded that a dirty house was a kind of murder, particularly after bacteriologist Charles Nicolle, of the Pasteur Institute in Tunis, proved that the vector for epidemic typhus was the human body louse. In 1903, Nicolle observed that lice-ridden patients suffering from typhus infected only those working in admissions, not the nurses in the wards. The driver of the disease, therefore, had to be the lice in the victims’ clothing, destroyed when the clothing was washed during the patients’ hospital stay. After some experimentation, Nicolle published his findings in 1909, and he won the Nobel Prize in 1928.

Typhus seems a relatively new epidemic disease, although some authorities trace its ravages back to ancient times. It may have been endemic in some European populations, but it was not recognized as a separate disease until the sixteenth century and is still hard to diagnose because of its similarities to other diseases. Early modern commentators reported typhus’s first appearance during the Spanish siege of Moorish Granada between 1489 and 1492, and it seems to have become more virulent in its transmission to Native Americans and its return to Europe with the conquistadores. After 1500, typhus increasingly accompanied war and most famously decimated Napoleon’s Grand Army in its invasion of Russia, reducing it from half a million to only a few thousand.

Typhus is a profoundly disgusting disease. The modern historian Sir Richard Evans describes its symptoms: “violent heats in the body, . . . an unnatural and fetid breath, . . . ineffectual retching, . . . small pustules and ulcers, . . . [and] agonies of unquenchable thirst.” The disease was named in the nineteenth century from the ancient Greek typhos, meaning smoky or hazy, the state of mind of the typhus patient in the last stages. Until the mid-1800s, it was often confused with typhoid fever, which has similar symptoms but is caused by contaminated water or food rather than the typhus bacterium. Typhus killed 10 to 60 percent of its victims, most of them desperately poor or living in intolerable conditions caused by war, poverty, or persecution. It is often a disease of cold weather, thriving in the layers worn to keep warm, found in modern America only among the bundled-up homeless.

Death by typhus is repulsive; in a way, it is akin to history’s imaginary lousy disease, with its suppurating sores hosting hordes of lice. Accordingly,
in the nineteenth and twentieth centuries, the insult “lousy” became shorthand for disgusting. The term gained wide use during World War I, notes *The Dictionary of Slang and Unconventional English*. Combatants expected a brief heroic adventure, punctuated by idyllic picnics on the Somme. Instead, they found lice, rats, body parts, and death. As the twentieth century increasingly valued antiseptic cleanliness, its wars were morasses of lice and rats. 

After World War I, lice and typhus were targeted by politicians and scientists, including Hans Zinsser, an American physician who had observed typhus’s devastation during the war and later wrote *Rats, Lice and History*, about diseases carried by vermin. (Typically, Zinsser was not without prejudices, explaining that he could obtain a sample of lice only by having the police arrest “a colored gentleman who was the only individual easily discovered who was in possession of the coveted insects.”) Zinsser warned that while the louse might seem confined to the poor and distressed, or to “primitive” regions of the world, it would “never be completely exterminated, and there will always be occasions when it will spread widely to large sections of even the most sanitated populations.”

So far, he’s been right. Body lice plagued armies through World War II, and head lice still infest schoolchildren. In the twentieth century, governments tried to loosen lice’s hold on their citizens’ hair and bodies by limiting immigration and supporting new insecticides. Businesses encouraged the use of DDT until it was banned in the United States in 1972 and the United Kingdom in 1984. In recent times, other treatments have addressed the challenge, and lice have been commodified by businesses small and large, but their appearance still causes children to be ostracized and media to warn of infestations in homeless shelters.

Lice remain a marker of social disgrace and otherness. And, too easily, disgust at the insect extends to the people carrying it. The twentieth century saw active campaigns against both.

**Lice and Racism**

The debate over race and lice that began in the eighteenth century persisted in the centuries following. To the question of whether different races had different kinds of lice, and thus whether all humans belonged to the same species, answers were often racist. Science and even simple empirical observation were often inflected by cultural assumptions. In the eighteenth century, William Cauty was ambivalent on the relation of lice to race, but he was an exterminator, not a scientist, whatever he might have claimed. Colo-
nists in the Americas were not so judicious. Edward Long, of the white elite of Jamaica, argued in 1771 in *The History of Jamaica* that African slaves had their own black kind of lice, and “this particular circumstance I do not remember to have been noticed by any naturalist.” By 1799, the naturalist Charles White cited Long on lice, maintaining, “Perhaps this apparently trivial circumstance may be deemed no inconsiderable arguments in support of the opinion that Africans are a different race than Europeans.”

In *The Descent of Man*, written in 1871, Darwin echoed the idea, musing, “The fact that the races of man being infested by parasites, which appear to be specifically distinct, might fairly be urged as an argument that the races themselves ought to be classified as distinct species.” In 1845, Darwin had asked the geologist Charles Lyell to collect specimens of lice from enslaved “Negro” persons to show whether their lice were indeed larger and blacker than the European variety. Sending samples of these lice to the entomologist Henry Denny in 1865, Darwin asked, “Will you excuse me asking you to inform me whether *Chiloe pediculi* form a distinct species or a well-marked variety?” Apparently, this question had been on his mind since he sailed on the *Beagle* in 1834. Darwin was familiar with this idea from the work of the entomologist Andrew Murray, who had collected specimens of lice from Africa, Australia, and South America that appeared to differ in both color and structure. He believed that “With insects slight structural differences, if constant, are generally esteemed of specific value; and the fact of the races of man being infested by parasites, which appear to be specifically distinct, might fairly be urged as an argument that the races themselves ought to be classified as distinct species.”

Denny’s reply to Darwin illustrated how questions of status were infested with lice. He began by insisting, “I cannot see any reason why the Lice of one Human Being should not live on another.” The explanation for the natives’ relative lack of lice is that they “wear no clothes whatsoever and the women shaved their heads. . . . The men although they wear long hair, so besmeared it with fat and red ochre, as to render it unfit for the abode of even a louse.” In this view, dirty hair, unlike the plica polonica discussed in chapter 4, prevents lice instead of producing them. But the two views clearly share the same attitude: foreigners and lice have an intimate—and highly repulsive—connection.

Writing about lice, Henry Denny did not confine himself to South American natives. In his 1842 opus on parasitic insects, he echoed the views of earlier colonial observers about the lice-eating propensities of Native Americans and Africans, proclaiming,
These creatures however are not regarded as unwelcome visitors by all nations, since we are told that the Hottentots and other nations of Western Africa, as well as some of the American Tribes eat them, and are so well pleased with their dainty morsel that they not only collect them themselves, but employ their wives in the chase, and have thence been called Phthirophagi; Dr. Richardson informs me that during the overland expedition under Sir. J. Franklin, he “daily observed the Indian women cracking their parasites between their teeth with much apparent enjoyment.” Monkeys have the same propensity.24

Africans and American Indians, it is clear from this passage, are like monkeys. Moreover, the appetites of these exotic and disgusting others are linked with gender and pleasure. Like the beggars, who the sixteenth-century humanist Heinsius explained take a “fricative pleasure” in scratching their itches, the natives enjoy their wives feeding them lice.

Similar reports of the taste for lice appear throughout the later nineteenth century. The American entomologist A. S. Packard argued that “the Chinese and other semi-civilized people” eat lice and that consumption leads to “certain mental traits and fleshly appetites.”25 Mark Twain, who had his own racism issues, wrote his mother in 1862 that the Indian “Hoop-dedoodle-do” unwillingly sheds prodigious amounts of vermin that otherwise he would eat, knowing “something about them which you don’t; viz, that they are good to eat.”26 The question of consumption continued to absorb observers in the early twentieth century, when the specter of vermin was used to justify imperialism, nationalism, and anti-Semitism. The German entomologist Heinrich Fahrenholz (1882–1945) argued that not only did Black people have their own species of lice, but so did the Chinese, the Japanese, and the Native Americans.27

Lice are bad, but people are worse. The story of lice in the twentieth century is a daunting record of human depravity. At the same time that science discovered that lice spread typhus and other diseases, the mythology of the lousy was equally lethal to millions. Lice-borne typhus killed hundreds of thousands, particularly in Eastern Europe, but the insect’s role as a disease vector was at least natural. The use of lice to justify the extermination of those considered parasitic was a more unimaginable horror. Reichsfürer Heinrich Himmler, the architect of the Nazi death camps, proclaimed in 1943, “Anti-Semitism is exactly the same as delousing. Getting rid of lice is not a question of ideology. It is a matter of cleanliness. In just the same way, anti-Semitism,
for us, has not been a question of ideology, but a matter of cleanliness, which now will soon have been dealt with. We shall soon be deloused. We have only 20,000 lice left, and then the matter is finished within the whole of Germany.”

In a Nazi 1942 propaganda poster, the image of the Jew and an image of the insect are intermingled, breaking the border between louse and human, both assaulting the safety of the threatened human viewing the picture. Such a threat justifies the elimination of the dangerous inferior creature by smashing or gassing.

Hugh Raffles, a historian of the Holocaust, argues that Himmler probably thought Jews and lice were literally the same. But whether the Nazi lead-
er’s words were meant to be metaphoric or literal, he was manipulating a centuries-long association of Jews with disease, going back to accusations of well poisoning during the fourteenth-century Black Death and the descriptions of the plica polonica in the early modern period. Himmler was also invoking the recent demonstration of lice’s link to typhus, putting it to a use never imagined by Charles Nicolle.

In earlier times, insecticides were made from ingredients ranging from pig’s grease to mercury. By the early twentieth century, it was common to use Zyklon B, a chemical in the cyanide family, against the bugs. American officials used it to delouse immigrants, particularly those coming from Eastern Europe and the Far East, as well as Mexican day laborers crossing into Texas. Using it in the death camps, Himmler expressed gratitude to the Americans for testing its efficacy.30

During and after World War II, DDT often performed lice-killing duties, and it was widely sprayed on soldiers and refugees—too late for Anne Frank and her sister, who died of typhus in February or March 1945 at the Bergen-Belsen concentration camp. A surviving prisoner recounted of Frank that at her death “She was no more than a skeleton by then. . . . She was wrapped in a blanket; she couldn’t bear to wear her clothes anymore because they were crawling with lice.”31

Today, Western Europeans and Americans are no longer threatened by typhus, which can readily be cured by a shot of antibiotics, although it continues to kill many thousands in the developing world. (There were fifty thousand cases in Burundi during its 1980s civil war.32) But the fear and disgust generated by lice are still with us. Despite its reduced impact as an entomological grim reaper, the insect itself still causes a reactive horror. Head lice, which actually do not carry any kind of illness (although some nonmedical lice hunters dispute this), are considered a kind of plague endangering civil society, not to mention the tender heads of our children.

Head lice can turn children into pariahs. The unfortunate families so infested feel overwhelming embarrassment and humiliation. In a recent episode of the situation comedy Modern Family, two characters discuss the news that lice has been found in their Vietnamese daughter’s class. “Ugh,” says one, “it’s probably from Portia. You know, she’s always so filthy. They had to kick her out of Swim Buddies because she left a ring around the pool.” When lice are actually found on their daughter, they decide not to tell anyone—no one will want to have anything to do with a child, or her family, that has lice.33 The parents involved happen to be gay. In the twenty-first century, having
lice is apparently more awkward than homosexuality or race. Social attitudes have evolved, but not enough to tolerate lice.

Lice Go to War
The British soldier/poet Isaac Rosenberg, soon to be killed at the Battle of Arras in 1918, wrote the poem “Louse Hunting”:

Nudes—stark and glistening,
Yelling in lurid glee. Grinning faces
And raging limbs
Whirl over the floor on fire.
For a shirt verminously busy
Yon soldier tore from his throat, with oaths
Godhead might shrink at, but not the lice.
And soon the shirt was afire
Over the candle he’d lit while we lay.
Then we all sprang up and stript
To hunt the verminous brood.
Soon like demons’ pantomime
The place was raging.
See the silhouettes agape,
See the glibbering shadows
Mixed with the battled arms on the wall.
See gargantuan hooked fingers
Pluck in supreme flesh
To smutch supreme littleness.
See the merry limbs in hot Highland fling
Because some wizard vermin
Charmed from the quiet this revel
When our ears were half lulled
By the dark music
Blown from Sleep’s trumpet.34

A constant refrain in firsthand accounts of World War I is the omnipresence of lice, which torture the soldiers and, as Rosenberg’s poem recounts, turn them into gibbering shadows writhing in a kind of demonic ballet. Some of the themes in this poem are familiar from earlier warfare. During the American Civil War, soldiers were tormented by lice and fleas. But Rosenberg’s account of lice hunting during the Great War is more visceral—the soldiers
did not merely strip off their clothes, but they became monsters themselves, with “gargantuan hooked fingers” that sought to “smutch supreme littleness.” Lice hunting became a cosmic metaphor for the battle between man and beast, with the lice triumphant as man shook off any spark of Godhood in his pursuit of the enemy burrowing into his skin.

Not all soldiers had such vivid memories of nightly encounters with the “wizard vermin,” but no account of the war omitted the tormenting inescapability of lice. The trenches teemed with lice (and rats), and soldiers and the nurses who cared for them rarely had the chance to change their clothes or bathe. Another poem, by Siegfried Sassoon, catches the profound despair induced by lice incursions: “In winter trenches, cowed and glum,/With crumbs and lice and lack of rum,/He put a bullet through his brain./No one spoke of him again.”

For a generation of young men, and some women, brought up in the nineteenth century’s new era of cleanliness, the degradation of war was deeply destabilizing. It could lead to suicide, or as Evadne Price (writing as Helen Zenna Smith) wrote about a female ambulance driver in the novel Not So Quiet . . . Stepdaughters of War, “Her soul died under a radiant summer moon in the spring of 1918 on the side of a blood-splattered trench.” Earlier in the book, the ambulance drivers watched as one of their number cut off her hair because of the “squadron of lice” that had taken residence on her head: “Snip, snip, snip,” and her tresses fall. Another comrade warned, “You’ll look awfully unsexed.” But the loss of femininity, and of gender roles, are worth it in the pursuit of lice, a symbol for the conflict’s degradation and loss of civilization.

Price’s book was supposed to parody the most famous World War I novel, All Quiet on the Western Front by Erich Maria Remarque, although it is a sample of grotesquery and black humor rather than laugh-out-loud funny. All Quiet is equally steeped in the despair produced by war, and by lice. The narrator, Paul Bäumer, recounts, “Killing each separate louse is a tedious business when a man has hundreds. The little beasts are hard and the everlasting cracking with one’s fingernails very soon becomes wearisome.” The soldiers sit around naked, throwing their prey into a tin on the fire where they crack and die. Even to a non-literature major, it’s clear that the lice’s fate also awaits the young soldiers.

Not surprisingly, soldiers would try anything to get rid of these demeaning pests, from the lice roasts just described to anti-lice products eagerly offered by entrepreneurs. Perhaps the most ingenious was the body cord, an
insecticide-laden belt that infested soldiers—or ambulance drivers—wore around their middle. According to the manufacturer, “The skin absorbs its germicide properties, and these are carried to all parts of the body. It even prevents the lice from lodging in the clothing.”

The Asiatic Body Cord was endorsed by a lady who presumably knew how to keep a young man clean, sweet, and virtuous. In its advertisement she exults, “Have just received word from the trenches that Somerville’s Body Cord is the finest thing ever invented for a soldier’s comfort.” The cord was inspired by a device from Indian folk medicine; it was made of three strands of four-ply robe, plaited together and doused with a mixture of two parts mercury ointment and one part yellow beeswax. During the war, 120,000 belts were sold, although the medical establishment doubted their value. This product seems to have benefitted from the same assumptions held by the customers of John Southall’s bedbug elixir: an exotic ancient culture—especially one deep in bugs—might know more about destroying insects than Western medicine. Likewise, as the conditions of the battlefield threw the
combatants into a uncivilized state, a product inspired by a supposedly uncivilized culture might work. Another marketed lice killer was the Trenchman Belt, shown on the facing page.

On the package, two soldiers scratch at their lice as a virile young man stands upright and grins while wearing his Trenchman Belt, which will protect him from not only lice but also colds. The belt was a triumph of British advertising, if not British medicine. More soldiers, however, depended on Keating’s Powder, made from pyrethrum, a chemical derived from chrysanthemum leaves, sold in a can that featured a grinning little devil, reflecting the bugs’ satanic qualities. Its effectiveness is unknown, but pyrethrum is still the active ingredient in the modern lice shampoos to which lice have become resistant—possibly because of overuse. Keating’s Powder was also called Persian Powder, another nod to exoticism to sell something to desperate Westerners.

The only real weapon against lice was cleanliness—essentially impossible in the trenches. When not deployed, the soldiers sometimes had showers, although the hot water necessary to kill the vermin was also scarce. Their uniforms, including underwear, needed a steam wash, but even if the afflicted was lucky enough to have himself and his kit cleansed of lice, he would almost immediately be reinfected at the front. Some soldiers declared that they would prefer enemy fire to the intense itch of lice bites; according to one military historian in 1915, “The irritation due to the body-lice weakens the host and prevents sleep, besides which there is a certain psychic response which causes many officers to fear lice more than they fear bullets.”

Lice spawned many synonyms—Americans and the British called the creatures “cooties,” enlivening the insult range of generations of schoolchildren. Americans also referred to them as “graybacks” (a term from the Civil War) or, with considerable poetic license, “galloping dandruff” or “seam squirrels.” The British also named them “coodlers,” while the French, no doubt with twirling mustaches, called them “totos.” The English and Australians also referred to them as “chatts,” perhaps from the chatting that accompanied nitpicking. The nighttime terrorists, many soldiers also told each other, were “made in Germany.”

Although lice were constant on the Western Front, typhus was less common. But another lice product, the less lethal trench fever or Rickettsia quintana (sometimes called relapsing fever), was rampant. Relapses could occur numerous times after the first bout. Like typhus, it produced high fevers, sore muscles, and skin lesions, but it was also usually accompanied by sharp shin
pains. It could lay up a soldier for three months, possibly preventing death in the trenches but also potentially leading to a lifetime of depression. Trench fever affected J. R. R. Tolkien, A. A. Milne, and C. S. Lewis, who all returned home to create fantasy places—the dark world of Mordor, with its resonances of the trenches; the pastoral landscape of the Hundred-Acre-Wood; and the religious utopia of Narnia. Perhaps Shelob the Spider in *The Lord of the Rings* entomologically evokes the lice of the trenches, as may A. A. Milne’s reaction to an insect zoo in London: “It makes me almost physically sick to think of that nightmare of mental and moral degradation, the war. When my boy was six years old he took me into the Insect House at the Zoo, and at the sight of some of those monstrous inmates I had to leave his hand and hurry back to the fresh air.”

As much as the soldiers on the Western Front suffered from lice and associated diseases, things were far worse on the Eastern Front. Typhus rolled east from Serbia in 1914, following the Austrian invasion. (The Serbians blamed the disease on “Albanian lice.”) It sickened almost 500,000 Serbian troops along the front, killing 120,000. The American doctor and bacteriologist Hans Zinsser went to Serbia in 1915 as a member of the Red Cross Typhus Commission, observing the carnage firsthand. He returned in 1917–19 as a member of the Medical Corps of the US Army. Zinsser’s bacteriological labors in the 1930s, working with fellow scientist M. Ruiz Castanada, led to the discovery of antibodies in the blood serum of typhus patients. Ultimately, by inoculating normal chick tissue with Rickettsia grown in chick embryo yolk sacs, they produced a vaccine containing dead bacteria, initiating an immune system response that curtails the disease. Zinsser also identified Brill disease, a recurrent, less virulent strain of typhus that was renamed Brill-Zinsser disease in his honor.

Based on these experiences, in 1935, Zinsser published *Rats, Lice and History*, dedicated to his close friend Charles Nicolle, calling it a “biography” of typhus. As one of the first historians of science (although he modestly refrained from calling himself that), Zinsser recounted the role of parasitic diseases in human history, something professional historians had failed to recognize. More importantly, defining his work as a biography opened up a new way of envisioning disease and its meaning. Lice became a metaphor for many other things—including, in Zinsser’s interpretation, those who give up freedom for the security of an easily accessible food source. For lice, the nutrient is human blood. The louse achieves “a secure and effortless existence on a living island of plenty. In a manner, therefore, by adapting itself to para-
sitism, the louse has attained the ideal of bourgeois civilization, though its methods are more direct than those of business or banking, and its source of nourishment is not its own species.”46

Zinsser, a humane man, would have been horrified to see the Nazis later employ a similar metaphor of the bloodsucking louse to justify genocide. But his example shows the explosive possibilities of verminous associations. Lice are parasites, Zinsser argued, but so are men, who depend for their existence on exploiting the rest of nature. And pity the louse, he says (presumably facetiously), who like us is prey to typhus and dies from the disease as we do: “If only for his fellowship with us in suffering,” Zinsser said of the creature he studied, “he should command a degree of sympathetic consideration.”47 As with Heinsius in the seventeenth century, lice became a way of commenting on the human condition.

As part of a League of Nations commission investigating a typhus epidemic, Zinsser visited the Soviet Union in 1923 and was as little impressed with their system as with the rabid capitalism he deplored. “The governing mob,” he wrote, “cared little in those days about a hundred thousand lives more or less, starving children, suffering and sickness, if only they could attain the noble ideals of Marxian theory.”48 In fact, Lenin had understood the louse’s threat to the Russian Revolution, declaring, “Either socialism will defeat the louse, or the louse will defeat socialism.”49

By 1923, Russia had suffered approximately twenty-five to thirty million cases of typhus after the 1917 Civil War between the Reds and the anti-Communist Whites. Three million people, mostly civilians, died from the disease. Like so many others, the Soviets linked the louse to the despised other, in this case their White opponents. A poster issued in 1921 proclaimed, “The Red Army has crushed the White Guard parasites—Yudenich, Denikin, and Kolchak [White military leaders]. Comrades! Fight now against infection! Annihilate the Typhus-bearing louse!”50 In the illustration, women cleanse a lice-ridden man, killing the lice in his clothes and then washing them under the direction of a military doctor. Unfortunately, none of this—if it ever happened—achieved much progress against typhus.

Western Europeans and Americans closely observed the devastating effects of typhus in Eastern Europe. During the war, Germany issued a postcard emphasizing the barbarism of the Russians. The text explains that family members are delousing themselves, a practice the German soldier in their midst is forced to follow. The Russians live in filth with their animals, including a pig rooting on the floor. In his Gresham Lecture “The Great Unwashed,”
Sir Richard Evans argued that the German government used the image to show the “fundamentally backward and uncivilized” nature of Russian culture.51

Germany and Austria delayed invading Serbia until the typhus epidemic there had run its course, and Germany took measures to prevent an outbreak among its citizens and soldiers, especially those sent to the Western Front. Anyone showing symptoms was put into quarantine, and huge delousing plants were set up on the border. Strict standards of hygiene were instituted. These efforts were successful; of the thirty-three thousand German Army deaths from infectious diseases, only fifteen hundred were from typhus.52

Nevertheless, the psychological effects of the typhus epidemic, especially the Soviet experience during the Civil War, were shattering. Some Westerners refused to believe a German Red Cross relief team’s reports that typhus and war were driving people to cannibalism and that dogs were eating corpses. The deaths included a large percentage of the old-guard aristocrats and the intelligentsia.53

Winston Churchill believed that the Germans had sent Lenin to St. Petersburg in 1917 to destabilize the enemy, “the way you would send a vial containing a culture of typhoid or cholera to be poured into the water supply of a great city.” Indeed, according to Churchill, Russia was a country of “armed hordes smiting not only with the bayonet and with cannon, but accompanied and preceded by swarms of typhus-bearing vermin which slay the bodies of men, and political doctrines which destroy the health and even the soul of nations.”54

Churchill knew his lice. As a colonel at the front in 1916, he greeted his officers with the words “War is declared, gentlemen, on the lice.” One of his officers, Andrew Dewer Gibb, later related, “With these words was inaugurated such a discourse on the *pulex Europaeus*, its origin, growth and nature, its habitat, and its importance in wars ancient and modern, as left one agape with wonder at the force of its author.”55 If Napoleon could have anticipated these remarks and the disease that lice carry, perhaps Russia would have fallen into French hands in the early nineteenth century and the Great War avoided altogether. As a man of action, not just words, Churchill had brewery vats converted into bathtubs and initiated a general delousing. It worked; he gained his men’s respect, and they escaped the depredations of typhus and trench fever.56

American authorities also took a hard line on lice, closely examining Eastern European immigrants at the turn of the century. Even before boarding the ships to New York, they were housed in “concentration camps” in Britain that were maintained by the shipping companies, where they were inspected
and treated for lice. If found to be lousy, men had to shave their hair; women, to preserve their “chief glory,” were allowed to use soap, oil, and lice combs against the insects. On arrival in New York, they were inspected again. From Ellis Island, steerage, third-class, and some second-class passengers found to have lice were sent to a separate delousing station on Hoffman Island, where they were treated with oil and soap and their baggage blasted with either pressurized steam or cyanide gas.57

American officials insisted the process was conducted with respect. The New York Times assured its readers, “It is felt that the method of handling those who undergo this process is calculated to maintain, as much as is compatible with thoroughness and efficiency, the dignity and pride of the individual.”58 But the linking of immigrants with disease helped drive anti-immigration fervor. In 1892, a typhus outbreak on the Lower East Side of New York was traced to Jewish immigrants who had recently arrived on the steamship Massilia. Although only two hundred people were infected, the authorities temporarily detained all Jewish immigrants and sent health inspectors into the immigrants’ boarding houses. The action quickly progressed to unnecessary brutality. According to the New York World, health inspectors “carried away women while their husbands tore their hair and children wept in frightened ignorance. It was a dreadful task, for all the patients were ignorant and already cowed by oppression. They were being hurried away to execution for all they knew.”59

William Randolph Hearst capitalized on the fear with a terrifying picture of a louse above a panic-inducing headline: “NEW DISCOVERIES ABOUT ‘COOTIES,’ THE SOLDIER’S PEST,” it warns, adding in subheads, “Why Scientists Are Studying So Patiently Every Obtainable Fact about Them”; “All Our Returning Troops Are So Carefully Deloused”; and “How the Arrival of a Few War Cooties Here Might Sweep America with a Death Plague That Kills Four Out of Every Five of Its Victims.” In this instance, returning soldiers (particularly Black soldiers) are labeled possible lice carriers, but immigrants also could be tarred with the same brush (or tentacles).60

Even a publication as staid as the Public Health Bulletin, from the newly created Public Health Service, was not immune to panic, especially after the US surgeon general, during his inspection of Eastern Europe in 1922, “had the pleasure of this intimate personal contact with friend cootie.” Abandoning jocularity, the Bulletin warned, “Typhus is just as much an international problem at this moment as the situation in Belgium was while the Germans occupied the country. It is a menace to the whole world.” By 1922, the US
Public Health Service had taken control over foreign entry into the United States, and its agents were charged with investigating immigrants and ships’ crews for “loathsome, contagious, and chronic diseases.” (The language comes from the 1891 Immigration Act, enacted in response to a recent cholera epidemic; “loathsome” in this case has both a physical and moral meaning.) Agents operated not only in New York and other eastern cities, but also along the Mexican border and in San Francisco, where two people died from cyanide poisoning aboard the SS Tahiti.61

The most chilling American example of the identification of foreign lice with foreign people surfaced in 1917 in El Paso, Texas. A typhus outbreak in central Mexico in 1915 caused some officials to panic. The mayor of El Paso requested the US Customs Service to set up a delousing facility to “bathe and disinfect all the dirty, lousy people who are coming into this country from Mexico.” The Mexicans were bathed with gasoline, stripped, and inspected before being allowed to proceed to their jobs. One Mexican maid, Carmelita Torres, refused to undergo this humiliating treatment and encouraged thirty others to also refuse this initiation into American society. The ensuing “Bath Riot” was ultimately put down by contingents of the American and Mexican armies.62

Afterward, delousing became a permanent part of crossing the border until the late 1950s, reflecting the ingrained bias that Mexicans were dirty—even though, somewhat ironically, most of the Mexican women crossing the border were coming to clean American homes. Zyklon B soon replaced gasoline as the fumigating agent of choice, and it was in turn replaced by DDT in the 1950s. Increasingly, to avoid these demeaning procedures, immigrants from both Mexico and China started entering the country surreptitiously. It might not be an exaggeration to say that lice created illegal immigration.

On both sides of the Atlantic in the 1920s and 1930s, scientists labored to find a vaccine against the ravages connected to lice. Hans Zinsser was one of the scientists laboring on a vaccine for typhus in the 1920s and 1930s. Another was a Polish bacteriologist of Austrian descent, Rudolf Weigl. Like Robert Hooke and Antonie von Leeuwenhoek before him, Weigl used himself as his first subject, both contracting and surviving typhus. Weigl continued his research when the Nazis occupied Lvov (modern Lviv), ultimately developing a vaccine, while his laboratory became a refuge for Polish intellectuals, Jews, and members of the Polish underground. He employed “lice-feeders” to provide nourishment for the millions of lice that he needed—perhaps not a glorious job, but one that provided a way to escape the Wehrmacht, who
were terrified by the disease and those who might carry it. Their fear was so intense that a Jewish bacteriologist, Ludwig Fleck, who had worked with Weigl, was allowed to continue his research into a typhus vaccine, first at Auschwitz concentration camp and then at Buchenwald.

The horrifying mix of lice, typhus, and genocide permeated the concentration camps. When prisoners arrived, they were deloused in a particularly dehumanizing procedure—they were forced to strip, thoroughly shaved—including pubic hair—and then doused with chlorine. As one survivor recalled, the process was as humiliating as possible:

Then when we were undressed, we were ordered, everybody was ordered to stand up on a stool, and they shaved us, they shaved our hair, and the private parts, and we looked, we couldn’t even recognize each other once we were stripped, not only of our clothes, but of our hair. Then we were shoved into those, um, showers, and they first opened the hot water, so we were scalded and as we ran out from under the hot water, we were beaten back by the SS and by the Kapos to go under the showers again, so they opened the ice cold water, which had the same effect, and finally we were out of this shower.63

Paul Julian Weindling, a historian of the Holocaust, writes, “The ordeal of delousing was as much a psychological as a physical torment.” The racialized understanding of typhus, he adds, provided an additional rationale for the killing of the “human vectors” of the disease.64 The brutality of the guards expressed the linked repugnancies of Jews and typhus, and the fear that the weak can somehow kill the strong, that the lice of the prisoners would somehow escape and kill their persecutors. The guards at Auschwitz warned their victims, Eine Laus dein Tod (“One louse your death”).65 Since it was virtually impossible to avoid lice in the camps, it is easy to see how death was always imminent.

Primo Levi, who survived Auschwitz to become a famed novelist of the Holocaust, has argued that “Here was not only death but a host of maniacal and symbolic details, all intended to demonstrate and confirm that Jews, and Gypsies, and Slavs are beasts, fodder, garbage. . . . The very method chosen (after careful experimentation) for extermination was openly symbolic. The same poison gas employed for disinfecting ships’ holds and rooms infested by bedbugs or lice was to be used, and was used.”66

Maniacal indeed was how deeply lice informed and even shaped the Nazi determination to eradicate the Jewish parasite. The gas chambers at Auschwitz were designed to look like delousing facilities, sometimes with fake
showerheads and signs that announced zum baden (“to the bath”) and zur Disinfektion (“to disinfection”). Historians argue that the Germans invented this deadly charade to pacify their victims, but the entire history of lice also fueled the elaborate masquerade. Jews were lice requiring extermination. The medical technicians pumping the poison into the gas chambers were called “disinfectors”; the Zyklon B containers bore the warning “Cyclon, to be used against vermin.”

Holocaust deniers have argued that there were no Nazi death camps, and that hydrogen cyanide was used for delousing, not genocide. According to Friedrich Paul Berg of the Institute for Historical Review, a Holocaust-denying organization, “The purpose of the delousing chambers was to save lives—and that is not denied except by the most passionate Exterminationist. No doubt, many hundreds of thousands of people, possibly millions, including countless Jews, owe their lives to these chambers and the German technology based upon Zyklon-B.” Deniers maintain that the war on typhus, not the annihilation of the Jewish population of Europe, produced Auschwitz, Dachau, and the other concentration camps. Nazis were not murderers, but simply the most efficient lice exterminators.

These claims have been sufficiently debunked. But they show how the fear of lice, and of lice-born disease, can be used to cover the most extreme destruction. Even the heroes in the war against lice saw the enemy as not just an insect but as human savagery. Charles Nicolle, in his Nobel Prize acceptance speech in 1928, fused lice and the people who had them: “Man carries on his skin a parasite, the louse. Civilization rids him of it. Should man regress, should he allow himself to resemble a primitive beast, the louse begins to multiply again and treats man as he deserves, as a brute beast.” Infestation is not just physical, but moral.

Just before World War II, the civilized world found another tool against lice and typhus. DDT, a chemical synthesized in the late nineteenth century, was identified as an insecticide in 1939 by a Swiss scientist, Paul Hermann Müller. By the end of the war, the Allies were using it in a successful effort to delouse soldiers and civilians. It would soon be employed as a boon for commercial enterprises as well as the military.

**Postwar Lice Fighting**

After the war ended, businesses saw at least one benefit from the carnage: the general use of DDT as an insecticide. Horrifying to modern sensibilities, advertisements touted the chemical's benefits. One ad for DDT suggested that
being a good mother required DDT-impregnated wallpaper. Because insects breed in “filthy” homes, morally upright housewives needed this product. Using DDT would also mean a happy baby. Finally, an omnipotent authority endorsed DDT: “Tested and commended by Parents’ Magazine.”
In 1962, Rachel Carson’s *Silent Spring* showed that DDT was not benign as the chemical companies promised, and its dangers to the environment were substantial. She also showed that in many parts of the world, lice were rapidly developing resistance to DDT. The assistant director of the Agricultural Research Division of the American Cyanamid Company responded that Carson was “a fanatic defender of the cult of the balance of nature” and that if her advice were followed, “we would return to the Dark Ages, and the insects and diseases would once again inherit the earth.” This critique has been echoed ever since, as when the conservative scholar and political commentator Steven Hayward declaimed in 2014, “Few books since *Das Kapital* have done more damage to humans than *Silent Spring*, and yet she—and her dreadful book—continue to be honored by the Left.” While the current debate about DDT focuses on its role, circumscribed or not, in combatting mosquitoes and malaria, the passion shown by both proponents and adversaries of the pesticide demonstrates its powerful social and political resonances.

The emotions raised in the battle against lice is most evident in the controversy over whether children found to have nits or lice should be allowed to stay in school. Until recently, schools in the United States and the United Kingdom had a “no nits” policy, ejecting children from the classroom as soon as the pests were discovered. According to most medical and public health authorities, head lice, unlike their bodily cousins, carry no diseases. Nevertheless, head lice have absorbed many of the stigmas of body lice, including the association with foreigners and filth. During the recent influx of immigrant children from Mexico and Latin America, one health care worker reported, “I would be talking to the children and lice would just be climbing down their hair.” Then she claimed that the authorities had forbidden her to talk about it. Although the children traveled on chartered buses and planes, Todd Starnes of Fox News warned, “I don’t mean to upset anyone’s Independence Day plans, but were these kids transported to the camps before or after they were deloused? Anyone who flies the friendly skies could be facing a public health concern.”

“A public health concern” about head lice infestation (pediculosis, in medical terminology) is hardly the same as the threat from Ebola or HIV or COVID-19, but the reactions of some parents often border on the hysterical. Sometimes, the school nurse is blamed. “Repeatedly,” reported a letter to the editor of the *American Academy of Pediatric News*, “parents become volatile to the extreme of making death threats to school nurses and school staff over this issue.” An exchange on the *New York Times* opinion page spurred many
comments. When the Harvard entomologist Richard Pollack pointed out that neither the American Academy of Pediatrics nor the National Association of School Nurses supports removing children with head lice from school, he was accused of having a conflict of interest and of having no personal knowledge of lice. (Because, like many lice professionals before him, Pollack often acts as a lice feeder, this charge is easily—and itchily—dismissed.) Others argue that lice can come only from dirty homes and dirty children, and, echoing ancient theological arguments, that lice serve to make filthy people clean their homes. But lice do not discriminate between clean and dirty hair, and if they do, they probably prefer the cleaner variety. Another parent, mystified over the passion expended on the lice issue—a nonissue in Asia where she grew up—finally realizes “the reaction to lice was a cultural thing!”

It is also a class thing. Some people argue that no-nits policies cost the children learning time in school, especially if they are forced to stay home until there is no evidence of lice or nits, and cost their parents time at work and therefore income. The removal of the bugs is also enormously time consuming, involving a close combing of hair—particularly burdensome when active lice scurry out of the way or because nits cling with special tenacity to the hair shaft. When that happens, lice wars evolve into a class struggle between those who can afford to pay professional nitpickers—yes, that is a profession—and those who cannot afford the expenses involved in eradicating lice.

And so, as usual, issues of culture and class devolve into issues of money—among their other characteristics, lice are lucrative. The amount of money involved is so large that it has engendered a battle among Big Pharma, environmentalists, and advocates of natural remedies. At its center is lice’s increasing resistance to pyrethrin, the active ingredient in the lice-killing insecticide Rid, and perhaps to the closely related chemical permethrin, used in Nix, and to other products promising to expel lice from children’s hair. Some products, like Malathion and the neurotoxin lindane, have serious potential side effects, including seizures and even cancer. More natural approaches usually involve smothering the lice with some kind of oil or mayonnaise. One American business, catchily named Head Lice to Dead Lice, has produced an award-winning animated video, available for only $39.95, starring a cartoon character named Jana McNanna, who is ostracized at school for having “cooties” and allowed back into school and community only after her mother follows the method for applying olive oil. It even provides a game, similar to Chutes and Ladders, that shows how to apply the oil.
Another expensive tool is the LiceBuster, renamed the AirAllé, which shoots a stream of hot air at the insects and dehydrates them to death. Larada Sciences, which owns Lice Centers of America, has franchised the device to various lice parlors around the country, including Rapunzel’s Lice Boutique in Michigan, a name proving that in America the right packaging can make almost anything cool. Other outfits, including the National Pediculosis Society, sell a variety of lice combs. Even scientists have entered the lousy marketplace—one group of professors from Purdue has applied for money to sequence the genome of the head louse, which apparently has the smallest genome of all the hemimetabolous insects. A group of British scientists has established Insect Research and Development Ltd. to evaluate lice products. An American company, Identify Us, provides information about lice and other insects, including identifying submitted specimens and offering pro bono services for those who cannot afford lice defenses.

One species of lice may be giving up the ghost without expensive or dangerous countermeasures. According to Ian Burgess of Insect Research and Development, “Pubic grooming has led to a severe depletion of crab louse populations . . . an environmental disaster in the making for this species.” Environmentalists committed to species survival may be pleased to learn that this claim is widely dismissed, because not many of the world’s humans indulge in Brazilian waxes, the culprit identified as destroying the habitat of pubic lice—at least among affluent twenty- and thirty-somethings. The charge seems to echo the cultural bias of a previous claim, made forty years ago by the eminent entomologist and historian J. S. Busvine, that an increase in head lice and scabies was a result of hirsute hippies’ poor grooming habits.

From the beginning of the twentieth century until today, the common theme of all reactions to lice is disgust. The creatures are invariably associated with the other, whether German soldiers, Russian counter-revolutionaries, Jewish inmates, or dirty next-door neighbors. Lousiness is a state of being that easily glides from the metaphoric to the physical, with responses moving quickly from angry words to furious actions. The sacrificial burning of lice in World War I trenches reflects the annihilation of the veneer of Western civilization during the war to end all wars. In that war, young men, whether pierced by bullets or bugs, are transformed into little more than blobs of bleeding flesh. This transformation was anticipated by Franz Kafka, whose *The Metamorphosis* envisions a protagonist awakening one day to find himself turned into a giant Ungeziefer, a kind of crawling, nasty bug or vermin. Nazis used the long metaphoric history of lousiness to justify genocide when
they fused the Jewish *Untermensch*, or subhuman, with the louse—both considered spreaders of typhus. They learned how to use Zyklon B from the American example in treating immigrants, although happily in the United States, disdain rarely became lethal. Since World War II, having lice is no longer a death sentence from disease or persecution, but the condition continues to spur horror, far out of proportion to its real dangers. We no longer spray children’s rooms with DDT, but many parents with lice-beset children will dare do almost anything to get rid of them, as lice suck up not only blood but also money.

“Don’t panic!” urge lice-fighting organizations and school notices, but lice feed on fear as much as blood. Lice get under our skins more deeply than any other insect parasite. The bedbug is currently socially alarming, but it is a driver of discomfort rather than disease. The flea is now a threat more associated with our pets, covered by our general indulgence toward them.

Even lice, although a painful source of disgust and humiliation, are no longer seen as a danger to our entire civilization. Like the fleas we will discuss in chapters 6 and 7, they can be viewed as both frightening and funny.