

**The Rationality of Inaccurate Science:
Britain, Cholera and the Pursuit of Progress in 1883**

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Introduction

In 1883, just before the European scramble for African territory and resources reached its height, France and Germany were engaged in another competition on the streets of Alexandria, Egypt. As an epidemic of cholera waned there, the French and German governments both sponsored scientists to try to discover the organism that causes the disease among the corpses and sewage of Alexandria. Louis Pasteur, of pasteurization fame, handpicked the French team; Germany's Robert Koch, discoverer of the tuberculosis bacterium, led his own. Through their scientists, France, a major colonial power, and Germany, a newly unified country, wanted not only to find the organism responsible for so much human suffering. They also competed for the prestige that would come with the discovery, prestige that would reinforce their right, as modern, progressive, and scientific nations, to colonize Africa and reap the spoils of their empires.

However, absent from the race to identify and hopefully cure cholera was Egypt's colonial ruler, the country where in 1854 John Snow discovered that cholera is waterborne: Britain. Britain put its economic interests first during the epidemic, relying on theories of disease that even many British scientists admitted were outdated, so that trade through the Suez Canal would not be damaged by quarantine regulations. One French newspaper said of British conduct during the epidemic:

It is England that maintains the closest relations with Egypt; thus the most pressing duty of the British Government is to use the most effective means to stop the plague. But the brutality that characterizes [Prime Minister William] Gladstone's policy in general is manifested again on this occasion, and, in the interest of English trade, the most basic international agreements are disregarded.¹

¹ *C'est Angleterre qui entretient les relations les plus suivies avec l'Egypte; donc le plus strict devoir du Gouvernement Britannique etait d'employer les moyens les plus efficaces pour arreter le fleau. Mais la brutalite qui caracterise la politique de Gladstone en general s'est encore manifestee a cette occasion, et, dans l'interet du commerce Anglais, on a mis de cote les*

Britain did scorn international quarantine agreements. However, a closer look at the reports and correspondence produced during the epidemic reveals that British officials, far from disregarding international opinion, were in fact preoccupied with proving the scientific credibility of their policies amidst the prevailing international climate of scientific rivalry.

Some scholars have examined the European focus on science and hygiene during the New Imperial period, as well as Britain's use of science as a tool to support colonial policies. But the current scholarship cannot explain Britain's complex, concerted and often-contradictory effort during the 1883 epidemic in Egypt. This thesis argues that Britain's rhetorical, scientific and practical actions in 1883 demonstrate how the late nineteenth century rivalry for prestige and progress had permeated the thinking of British officials to the extent that even while using long-standing British theories and policies to deal with the 1883 epidemic, officials felt the need to reinforce them against international criticism through the language of objectivity, rationality and modernity. Even though Britain did not participate in the race to find the cholera bacterium, the 1883 epidemic nonetheless provided a field for Britain as well as the Continental countries to participate in the European rivalry for scientific and cultural modernity during the late nineteenth century.

Part I: Review of the Literature

Since Charles Rosenberg published The Cholera Years, his study of three American epidemics that took place in three different decades, historians have used epidemics to understand the priorities of a society. Rosenberg and other scholars ask how epidemics were understood, what causes they were ascribed to, who responded to them (the government? The church?), and what those responses were. Although scholars have applied this approach to colonial medicine, most have focused on colonial theories and policies without looking more closely at the rhetoric used to explain them. Without examining this process of self-justification, it is impossible to fully understand colonialists' priorities. Why and how exactly did the British defend their policies scientifically, and what does this tell us about British priorities with respect to their international image? These questions have not been adequately addressed in the literature. It takes a crisis, like the epidemic I examine in this thesis, to see what happens when British economic interests and their desire to preserve their image as a modern, scientific nation combine.

I address this gap in the literature by using the crisis of the cholera epidemic in Egypt to analyze what the British discourse during the summer of 1883 reveals about the country's preoccupations. I conclude that European rivalries of the New Imperial period – economic, imperial, cultural and scientific – spurred the British desire to protect their economic interests while trying to present their policy during the epidemic as the most scientifically modern and progressive in Europe.

I will therefore begin my literature review by discussing the cultural implications of the New Imperialism as they relate to the pursuit of “progress and modernity.” I will then discuss how science became a vital part of this pursuit, as it became more prominent and

professionalized, with the advent of Darwinism and other developments. Next, I will examine the state of European science with regard to epidemic disease, providing a background for understanding the controversies surrounding disease theory and policies, and explaining why quarantine, cholera and the Suez Canal were all such significant issues for Europeans during the late nineteenth century. I will also discuss the work of scholars who have tried to explain why different countries adopted different disease theories and policies, and how this thesis will add to their work.

In studying the negative effects of British imperial health policies, scholars have asked: to what extent can the use of misguided science or policies be considered purposeful or exploitative? I will discuss the debate over that question in the Colonial Medicine chapter. During the 1883 epidemic, Britain concentrated on sanitary policies, a tradition that had a strong domestic basis. I will discuss the reasons for and implications of Britain's sense of their own hygienic superiority in the next chapter. Finally, I will provide the economic and political background for Britain's newly established presence in Egypt in 1883.

Chapter 1

Modernity and the New Imperialism

From the 1870s to the start of World War I, European powers engaged in what historians have termed the “New Imperialism,” a period of intense nationalism at home and colonial competition abroad. In 1885, at the Berlin Conference, the ground rules were set for the “scramble for Africa”: the process by which Europe gained control of the entire African continent, with the exceptions of Ethiopia and Liberia. During this period, the players in the imperial game expanded beyond Britain and France to include other European nations, plus Russia, America, and Japan. The main focus of colonialism also shifted to territorial expansion.² Competition between states raged in the colonies in ways that it could not at home: Tiny Belgium acquired a vast rubber forest in the Congo, Chancellor Bismarck of Germany decided that his country’s position in the world needed a boost that colonies could provide, and France wanted to shrug off the humiliation of its recent loss in the Franco-Prussian War and restore its role at the center of the European balance of power.

Britain, therefore, was no longer the world’s sole industrial power, nor an unchallenged imperial power. Victorian classicist J.R. Seeley famously wrote that the British Empire was acquired “in a fit of absence of mind” – in other words, through exploration and trade conducted by people who lacked the purposeful intent to rule vast territories. Historians agree that during

² What caused this era of frantic expansion? The question has been hotly debated among scholars since J.A. Hobson published his Imperialism in 1902, which attributed the phenomenon to European countries seeking new, cheaper labor markets and enlarged consumer bases for the products of the Industrial Revolution, which had, by that time, spread beyond Britain. More recent scholars have proposed other explanations that go beyond economic forces. In this thesis, I will be focusing on an outcome of the New Imperialism (the increased importance of competition for modernity and scientific prestige); what caused it has little bearing on my argument.

the New Imperial period, Britain's relationship to its empire changed and became more recognized, institutionalized and publicly visible, in response to growing competition from abroad. According to the *Historical Dictionary of the British Empire*, "Throughout much of the nineteenth century, the British viewed Africa as their private preserve...By the end of the century, however, that complacency was over...the British became increasingly worried about maintaining their paramountcy."³

In the 1880s, driven by anxiety over the future of the empire, a pressure group known as the "Constructive Imperialists" advocated for pro-imperial causes, such as greater trading privileges for colonies, going against the *laissez-faire* policies prominent during most of the nineteenth century. Often associated with politician Joseph Chamberlain, the imperialist movement was "in part a response to changes in the international environment":

From the mid-1870s the growing industrial and military strength and increasing overseas activity of, in particular, Germany, France, the United States, and Russia meant that Britain was no longer the sole genuinely global power.⁴

Through colonial expansion, Britain tried to preserve its global dominance and maintain control over its international financial interests. In fact, some historians date the beginning of the New Imperial period to two events: the acquisition of the Congo Free State by King Leopold "of the Belgians" in 1882, and Britain's occupation of Egypt and the Suez Canal in that same year.⁵ The latter was an attempt to restore Egypt's financial situation and protect Britain's interests through outright occupation. Those two acquisitions were arguably the first major moves in the European "scramble" for African territory and resources.

³ James Stuart Olson and Robert Shadle, *Historical Dictionary of the British Empire, K-Z* (Westport: Greenwood Press, 1996), 989.

⁴ William Roger Louis et. al., eds., *The Oxford History of the British Empire*, vol. 3 (Oxford UP, 1998), 348.

⁵ Niall Ferguson, *Empire: How Britain Made the Modern World* (London: Penguin, 2004), 195.

The European rivalries surrounding the scramble operated on multiple levels, not just in the realms of territorial and economic expansion. There was also a less tangible competition for national prestige and the mantle of “civilization.” The remarkable success of imperialism during this period existed alongside European anxieties over preserving both their perceived racial and social superiority to the peoples they colonized, and their position with respect to other European powers. Proving “modernity” in areas such as science, lifestyle, and racial attributes grew in importance during this era, as a way of proving a nation’s superiority and aptness for imperial power, and as a justification for its presence ruling over other countries – the so-called “civilizing mission.”

Fueling this rivalry was the growing acceptance of Darwinism and its counterpart, social Darwinism, by many Europeans. The *Oxford History* finds evidence of this growing concern with establishing a place at the top of the evolutionary heap in the changes in the global exhibitions hosted by Britain throughout the nineteenth century. “The exhibitions represented a sharpening sense of Imperial conflict...they also indicated a heightening of racial consciousness.”⁶ “Native village” displays demonstrated the so-called backwardness of non-Western life and were “used to illustrate concepts of social evolution...which derived authority from their air of scientific objectivity but essentially reflected Europeans’ views of themselves.”⁷ However illogical scientific racism might seem today, during the late nineteenth century, social Darwinism’s status as a legitimate theory helped justify Europe’s often-violent subjugation of non-white peoples.

Historian Anne McClintock argues that the new ideas about evolution placed imperial violence in the context of the natural evolutionary struggle, making “nature the alibi of political

⁶ Louis et.al., 284.

⁷ Louis et.al., 285.

violence and [placing] in the hands of ‘rational science’ the authority to sanction and legitimize social change.”⁸ Similarly, historian Bruce Mazlish writes that “Race is a product of ‘modernity’ and a partial response to it...Racial distinctions could replace the faltering aristocratic ones as a justification for hierarchy.”⁹ “Scientific objectivity,” as applied to evolution, race and many other fields, emerged as a benchmark of modernity and an important justification of imperialism during this period, one that motivated the British during the 1883 Egyptian cholera epidemic.

⁸ Anne McClintock, Imperial Leather: race, gender and sexuality in the colonial contest (New York: Routledge, 1995), 216.

⁹ Bruce Mazlish, Civilization and Its Contents (Stanford University Press, 2004), 62.

Chapter 2

Science, Civilization and Imperialism

The rapid industrialization of Germany and the United States, swept Britain up in what contemporaries saw as a race among nations, in which the “survival of the fittest” was to be measured by success in achieving “national efficiency.” In this, the methods of science were the essential instruments. The rhetorical translation of science and its creeds, from the threatening language of materialism and socialism, to the instrumental language of management had begun.¹⁰

–Roy MacLeod, The “Creed of Science” in Victorian Britain

During the New Imperial period, science became a vital part of claims to modernity: as a tool for “proving” racial superiority, and as a way of demonstrating the advancement of a culture and contributing to national prestige. From the 1870s to the 1880s, science itself reached the peak of its prestige as an alternative religion, a “Creed of the Future,”¹¹ suggests historian Roy MacLeod. MacLeod argues that this triumphalism was short-lived, as “scientific policies” were attacked. In 1893, T.H. Huxley, a biologist and friend of Charles Darwin, gave a lecture in which he “mooted the possibility that evolution...could not, in itself, produce what High Victorians could confidently call material ‘progress.’”¹² 1883 came at the highpoint of European political confidence in science. The growing specialization of science at this time ironically made it both less intelligible to politicians and officials, and more important for justifying and informing policy.

In her analysis of international sanitary conferences on cholera from 1851 to the turn of the century, historian Valeska Huber tracks the growing professionalism of science and its increasing importance to the political delegates. Her summary of the 1851 conference sounds odd to modern ears: “Scientific discussions were to be avoided...the diplomats...criticized the

¹⁰ Roy MacLeod, The “Creed of Science” in Victorian England (Aldershot: Variorum, 2000), xii-xiii.

¹¹ MacLeod, xi.

¹² MacLeod, xii.

scientists as long-winded and impracticable.”¹³ At the time, medical debates, especially regarding epidemic disease, relied on philosophy as well as observation, operating on a plane of knowledge familiar to the political delegates.

Contrast this with the 1885 conference, the first after Koch’s discovery of the cholera bacterium, when bacteriology had become “associated with coherence, exactitude and modernity”¹⁴ and

Medical knowledge became specialist knowledge which was complicated and not accessible to the diplomats... While this self-fashioning of the modern scientist meant on the one hand that diplomacy and science belonged now to completely different spheres, at the same time science became relevant to politics to a formerly unknown extent. In the fight against cholera politicians had to rely on scientific expertise and prescriptions.¹⁵

As science became more rigorous and, therefore, more difficult for nonprofessionals to understand, its prestige grew and its theories became more important for policy formulation, especially regarding epidemic disease. This was equally true in the colonies – at least on the rhetorical level.

Science, including medicine, played a particularly important role in the colonies as part of the justification for European rule. “Well into the twentieth century,” notes the *Oxford History*, physical and life sciences “retained a fundamental belief in scientific and technical progress rooted in Imperial ideas of the beneficent spread of Western science.”¹⁶ But no matter how patriotic scientists might have been, British imperial officials did not always give them cause for cheer. Medical historians Michael Worboys, David Arnold, Sheldon Watts and others have discussed how science and medicine were used as tools in the imperial struggle. “Science

¹³ Valeska Huber, “The Unification of the Globe by Disease? The International Sanitary Conferences on Cholera, 1851-1894,” *The Historical Journal* 49 (2006): 460.

¹⁴ Huber, 465.

¹⁵ Huber, 465-66.

¹⁶ Louis et.al., 286.

was...part of the self-identity of the European elite and its self-declared mission to ‘improve,’ to ‘civilize,’ ultimately to ‘modernize,’ India,” argues Arnold.¹⁷

Lord Curzon, viceroy of India from 1899 to 1905, was one of those who realized the growing importance of science in Europe. History does not confirm that Curzon was a great benefactor of scientific research in India. David Arnold points out that in the 1880s, Sir Ronald Ross, winner of the Nobel Prize in Medicine, wrote that under the Anglo-Indian government “the great bacteriological discoveries of Pasteur and Koch ‘were scarcely recognized, or were ridiculed.’”¹⁸ Ross “felt that he was consistently obstructed by the government and the [Indian Medical Service] chiefs in his own search for the malaria parasite in the early 1890s.”¹⁹

Ross was by no means an anti-imperialist; in fact, he had also stated that the British were “superior to subject peoples in natural ability, integrity and science...They [had] introduced honesty, law, justice, order, roads, posts, railways, irrigation, hospitals...and what was necessary for civilization, a final superior authority.”²⁰ Still, he and other scientists worried that the government in India was hindering British research. Ernest Hart, editor of the *British Medical Journal*, said in 1894 that the Anglo-Indian authorities regarded research as an administrative “nuisance,” and that they followed a course of “respectable conservatism” rather than pursuing “potentially controversial research.”²¹ But as Arnold notes, the virtues of medical science were extolled even as research and basic care were not adequately supported. Arnold’s discussion of Curzon’s rhetoric is worth quoting at length:

¹⁷ David Arnold, *Science, Technology, and Medicine in Colonial India* (Cambridge UP, 2000), 212.

¹⁸ Arnold, *Science, Technology, and Medicine in Colonial India*, 141.

¹⁹ Arnold, *Science, Technology, and Medicine in Colonial India*, 141.

²⁰ Mark Harrison, *Public Health in British India: Anglo-Indian preventive medicine 1859-1914* (Cambridge UP, 1994), 151.

²¹ Arnold, 141.

Curzon was more alive than many of his bureaucrats to the scientific spirit of the age and to the practical, as well as polemical, needs of high imperialism... Science (and not just the grand public works that had dominated nineteenth-century thinking) could be a force for far-reaching change, an aid to more efficient government, and not least, in an age of increasingly assertive nationalism, a fresh source of legitimation for British rule... there might be those who questioned the value of Britain's laws and religion, but about science, especially medical science, he said, there could be no doubt. Medicine alone was the justification for British rule. It was "built on the bed-rock of pure irrefutable science"... Medicine lifted the veil of *purdah* "without irreverence"; it broke down the barriers of caste "without sacrilege." Medical science was "the most cosmopolitan of all science" because it embraced "in its merciful appeal every suffering human being in the world."²²

In Curzon's formulation, medicine is an unarguable justification because it is based on fact and reason, it can lift away irrational and backward traditions like caste and *purdah*²³, and it is universal, thus requiring a competent global power to support and provide it. It was therefore an excellent justification for modern, forward-thinking imperialism.

As in Egypt during the 1883 epidemic, even as British officials resisted the growing scientific consensus on the germ theory of disease, their rhetoric on science became loftier. Arnold acknowledges this seeming contradiction but, like other scholars, does not fully explore it. He does discuss another irony, that Indian scientists were often actively discouraged from joining the medical service: "Despite the mounting pressure for Indianization, these remained essentially European services and their racial exclusiveness helped... shape a shared scientific culture and a common ideal of scientific service to the empire as a patriotic and paternalistic duty."²⁴ Clearly, these were anxious times for British imperialists who felt they had something to prove. The spirit of the age does not speak to a sense of security, but to a constant worry about maintaining cultural and racial superiority in the face of European rivalry and colonial rebellion.

²² Arnold, Science, Technology and Medicine, 137.

²³ *Purdah*: Refers to the segregation of the sexes and to the veiling and covering of women.

²⁴ Arnold, Science, Technology and Medicine, 138.

There was a corresponding worry about maintaining national prestige that was sometimes used against British imperial officials by scientists and others who worried about the decline of Britain's scientific reputation compared to Continental Europe – and even beyond. Edward Hart, editor of the *British Medical Journal*, wondered, as Arnold summarizes,

why it was that all the major discoveries in tropical pathology had been made by foreigners – French, German, even Japanese – not by Britons. In an age of imperial rivalry, it was galling to have to recognize the pioneering work on cholera, malaria...plague had been done by others.²⁵

For Britain, used to being on the cutting edge of all aspects of inquiry, the prospect of being eclipsed not only by rivals France and Germany but by the non-European Japanese was an uncomfortable thought. “It is not right,” Hart said, “that we should essay to govern millions and withhold from them the full measure of civilization. Nor is it seemly that we in England should have to go for so many years to France and Germany for textbooks in a subject [tropical medicine] in which England should lead the way.”²⁶ After all, Britain ruled more tropical locales than any other European country and had therefore the most direct access to resources for research. Similarly, a Dr. A.C. Crombie complained:

We have allowed a Frenchman to find for us the amoeba of our malarial fevers, and a German the...bacillus of cholera which is surely our own disease, shall we wait till someone comes to discover for us the secrets of the continued fevers which are our daily study, or shall we be up and doing it for ourselves?²⁷

As historian Mark Harrison notes, “Controversies over priority for ‘discoveries’ in the emergent discipline of tropical medicine had distinctly nationalistic overtones.”²⁸ We see that the same anxieties preoccupied colonial officials and British scientists, but while scientists wanted actual action, officials were largely concerned with image. In 1883, this separation of rhetoric and

²⁵ Arnold, *Science, Technology and Medicine*, 141.

²⁶ M. Harrison, 151.

²⁷ M. Harrison, 151.

²⁸ M. Harrison, 151.

reality is evident in the British handling of an epidemic of cholera, an event that attracted the attention and concern of governments across Europe. Why would cholera in Egypt be so troubling? I will explore that question in the next section.

Chapter 3

European Responses to Epidemic Disease

Epidemic disease was one of the most important threats to nineteenth-century societies, governments and scientists. In this section, I will explain the debate between “contagionists” and “sanitationists” that became so important in 1883. I will also show why a cholera epidemic in Egypt would evoke so much fear in Europe.

The two most prominent theories of epidemic disease during the nineteenth century were “contagion,” which came to encompass germ theory, and “miasma,” which generally lent itself to an approach to disease control known as “sanitationism.” Germ theory has been proven correct, and we now know that diseases like cholera are passed indirectly from person to person via tiny organisms. Prior to the major bacteriological advances of the late nineteenth century, however, multiple types of “contagion theories” circulated, and quarantine was often an ineffective method of disease prevention because without knowledge of how various diseases were transmitted, it was difficult to come up with a plan that could prevent infection. Some contagionists, including Koch himself, were skeptical of quarantine²⁹, and most Europeans agreed that good hygiene was vital for health. The miasma/contagion debate, therefore, was far from clear-cut.

Miasma theory held that “bad air” accumulates in certain places, provoking illness. These diseased clouds were said to arise from “decayed organic matter or *miasmata*...Believers in the miasma theory stressed eradication of disease through the preventive approach of

²⁹ Mariko Ogawa, “Uneasy Bedfellows: Science and Politics in the Refutation of Koch's Bacterial Theory of Cholera,” Bulletin of the History of Medicine 74: 4 (Winter 2000), 706.

cleansing and scouring, rather than through the purer scientific approach of microbiology.”³⁰

Microbiologists believed that the tiny organisms that formed the subject of their field passed from person to person, sometimes through other carriers like insects or feces. Proponents of this theory were known as contagionists, and Robert Koch’s discovery of the tuberculosis bacterium in 1876 lent them credence. Another frequently-used term in 1883 was “importation,” the theory that cholera is brought to a place via a certain carrier, clearly an idea built on the concept of contagion. The British countered with local-origin theory, less dependent on the miasma theory, but influenced by the concept of localized miasmas.

For many contagionists, quarantine was a necessary response to infectious disease, as it isolates infected individuals to prevent the disease from spreading and can provide a sense of control over the situation. “Sanitary cordons,” barriers erected around a town that was suffering from a disease, were another option. The Egyptian health authorities used cordons during the 1883 cholera epidemic, earning scorn and disgust from British officials and journalists.

The British had long been suspicious of quarantine, and not just because they were inconsistent and often ineffective. As the country that relied most on sea trade, quarantines were a real nuisance for Britain. In 1882, the *Bombay Gazette* expressed the Anglo-Indian frustration at the imposition of new international quarantine regulations:

A steamer in quarantine is not only forbidden to allow a passenger to set foot on shore but cannot even take the canal pilot on board... These vexatious restrictions are so oppressive that companies running steamers regularly have had to send out stem pilot-boats to Suez... and in many cases trading steamers were held back to the detriment of commerce and to the positive loss of owners and shippers.³¹

³⁰ Ralph R. Frerichs (UCLA Department of Epidemiology), “Competing Theories of Cholera,” last updated 5 August 2001, available at: <http://www.ph.ucla.edu/epi/snow/choleratheories.html>.

³¹ Quoted in M. Harrison, 123.

For decades, pro-imperial Britons had linked the success of British commerce with the spread of civilization and Christianity. International trade was not only economically vital for Britain, it was also upheld as one of the pillars of the capitalist, civilized lifestyle that Britain could offer the world. Britons argued that quarantine restricted trade and nurtured panic and other uncivilized behavior.

In March 1882, one month after new quarantine regulations were established for the Suez Canal, a British politician wrote:

Her Majesty's Government are not prepared to acquiesce in the recurrence of such arbitrary and capricious acts of the International Board as have of late caused enormous losses to shipping; and they can no longer assent that an irresponsible body should have the power of making unreasonable laws which disturb the whole Eastern trade of Great Britain and unduly impede her communications with India.³²

This incensed politician was Earl Granville, the foreign secretary who would monitor the British response to the 1883 Egyptian epidemic, and he was writing to Sir Edward Malet, Egypt's proconsul, who would manage the situation on the ground in Egypt. For these officials dealing with the epidemic, harsh quarantines were to be avoided as much as possible, as was the theory of importation that made quarantine seem like the only available option for controlling cholera.

The other side was equally determined that harsher regulations would come out of the epidemic. Cholera in Egypt meant panic in Mediterranean Europe. The disease itself preoccupied Europeans; it was the subject of all but two of the "international sanitary conferences" held from the 1850s onward. Cholera prompted drastic responses because of its seemingly random ravages. It held a unique fascination and terror for nineteenth-century Europeans. To understand the panic underlying European attitudes towards the 1883 epidemic,

³² M. Harrison, 124.

and the arrogance Britain displayed in trumpeting its own freedom from cholera for several years, it is important to realize the hold cholera had on people's imaginations.

Several scholars have singled out cholera as especially troublesome to Victorian romantic ideals and social norms of privacy. "It was not easy for survivors to forget a cholera epidemic," writes medical historian Charles Rosenberg. "The symptoms of cholera are spectacular; they could not be ignored or romanticized as were the physical manifestations of malaria and tuberculosis."³³ He quotes an Albany man, who wrote in 1832: "To see individuals well in the morning & buried before night, retiring apparently well & dead in the morning is something which is appalling to the boldest heart."³⁴ Cholera's rapid onset increased people's perception of the need for far-reaching public health reforms.

Tuberculosis, yellow fever and other pestilences claimed more lives in the West, but at least they could be incorporated into the culture, into acceptable ways of being ill and dying. The literature of the era contains many examples of the quiet, romantic death: several of Charles Dickens's characters, for instance, as well as Beth in *Little Women*. Cholera never found a place in this understanding of epidemic disease. Its symptoms were "deeply disgusting in an age that...sought to conceal bodily functions from itself,"³⁵ writes historian Richard Evans. Death could occur within hours and usually came within days, as the victim defecates his bodily fluids and then a type of "rice water," and the skin becomes dark and the eyes sunken. The pain is unbearable. Evans evokes this fear:

³³ Charles Rosenberg, The Cholera Years: The United States in 1832, 1849 and 1866 (University of Chicago Press, 1962), 3.

³⁴ Rosenberg, 3.

³⁵ Richard J. Evans, Death in Hamburg: Society and Politics in the Cholera Years 1830-1910 (Oxford: Clarendon Press, 1987), 229.

The thought that one might oneself suddenly be seized with an uncontrollable, massive attack of diarrhea on a train, in a restaurant, or on the street, in the presence of scores of respectable people, must have been almost as terrifying as the thought of death itself.³⁶

This “Asiatic” disease, which originated in India, was a truly “uncivilized” disease, associated with the East and with lower-class districts where sewage was badly managed if it was managed at all.

The fact that this cholera epidemic occurred in Egypt was equally important in capturing European attention, given the symbolic and practical value of the Suez Canal as a gate between Europe and the diseases of the Orient. “The English argument ‘Everyone is master in his own home’ would be irrefutable if the ships did not pass through the Canal which is a common gate to England and to the other European nations,” a French delegate argued at the sanitary conference of 1885.³⁷ Although the British controlled Egypt, the French, as the above passage indicates, did not feel that this gave them special privileges to determine policy for what, in their view, was an international issue that would affect all of Europe. The Canal, according to Valeska Huber, was “a single, controllable gate between India and Europe,”³⁸ one “which was open for commercial enterprises but closed for microbes.”³⁹ Policing Europe’s land borders was nearly impossible; this European-controlled portal had to be, in the opinion of Continental Europe’s delegates to the sanitary conference, rigorously protected.

During the sanitary conferences, there was a constant tension between the interests of each country – particularly Britain’s economic interests – and the new norms of international relations, what Huber calls “the intricate relationship between nationalism and

³⁶ Evans, 229.

³⁷ Huber, 467.

³⁸ Huber, 475.

³⁹ Huber, 467.

internationalism.”⁴⁰ It was difficult for delegates to agree on an international policy when the major powers were informed by their own experiences. Harrison writes that

All the medical arguments advanced at international sanitary conferences were, in some degree, articulations of each country’s experience of epidemic disease. France seemed to be afflicted with cholera first in her Mediterranean ports, seemingly as a result of commercial exchange with the middle east [sic]. This gave rise to the understandable belief that cholera was a disease transmitted by human contact. British epidemiologists were convinced, however, that no single case of cholera had ever reached a British port direct from India, and that the great cholera pandemics had spread overland from Asia to Europe.⁴¹

France, therefore, was also acting on its own interests, which concerned keeping cholera out of France, while Britain was less concerned about importation because it had not experienced severe epidemic cholera since 1866. According to Harrison, medical policy was largely determined by this experience with disease. Similarly, historian Peter Baldwin argues that it was a country’s “geographic placement in the epidemiological trajectory of contagion, that helped shape their responses and their basic assumptions about the respective claims of the sick and of society.”⁴² For other scholars, like Richard Evans, political ideology also influenced the tendency of certain cities and countries to embrace certain theories of disease.

In this thesis, I argue that economics, practical concerns about importation, and cultural and ideological influences are not enough to explain Britain’s complex reaction to the 1883 epidemic. In this time of crisis, the British responded according to the new expectations of the times. The historical context of the epidemic determined the rhetoric the British used in responding to it. I argue that scientific rhetoric was not created in a vacuum, but was forged out

⁴⁰ Huber, 467.

⁴¹ M. Harrison, 127.

⁴² Peter Baldwin, Contagion and the State in Europe, 1830-1930 (Cambridge UP, 1999), abstract [pages not numbered].

of the intersection of economic, scientific and colonial discourses. I will use the work of historian Richard Evans to further clarify my own analysis.

Different writers have tried to connect miasma and contagion theories to different ideologies and methods of government. In *Death in Hamburg*, Richard Evans argues that the German port city's leadership was influenced more by British-style *laissez-faire* government than by Bismarck's centralization policies. Evans examines Hamburg's 16 nineteenth century cholera epidemics, which occurred over the span of a few decades. Hamburg was a bourgeois port city, and the middle class reaped the benefits of free trade and liberal policies at a time when most German cities were becoming more controlled by the imperial capital of Berlin. Evans identifies the Hamburg middle class as natural supporters of the miasma theory of disease. The theory that some poor and unsanitary places were prone to "bad air" was convenient for those who favored a nongovernmental approach to solving social problems. According to Evans, miasma theory functioned almost as a tool to justify noninterventionist public health policies. "The solution of [health] problems was closely bound with structures of social inequality and social conflict in the city,"⁴³ he argues. At the same time, Bismarck's Berlin promoted bacteriology, and in 1883, the famous scientist Robert Koch, funded by the German government, found the cholera bacterium in Egypt and then confirmed his discovery in India.

Evans examines the Hamburg city records and concludes that inaction in the face of persistent cholera breakouts eventually became untenable for Hamburg authorities, and that cholera contributed to Hamburg's loss of independence during the late nineteenth century. Hamburg's political subjugation, and the loss of support for the miasma theory of disease and lack of action in the face of cholera, fed on each other. As Evans writes, "More died in Hamburg

⁴³ Evans, vii.

than just people...[cholera] marked, even if it was not alone in bringing about, the victory of Prussianism over liberalism, the triumph of state intervention over laissez-faire.”⁴⁴ Evans directly relates the rise and fall of scientific theories with the fortunes of their political supporters. He writes that Koch’s discovery and Germany’s centralization and quest for greater global power fed on each other:

At the same time as the Germans, the French, the British, and other nations were engaged in a desperate race to annex territory in the name of Civilization, they were also involved in a furious competition to conquer disease in the name of science. No wonder, then, that Koch was acclaimed as a hero on his return [from discovering the cholera bacillus].⁴⁵

Evans’s analysis is helpful in explaining British theories of disease, but examining British rhetoric indicates that Britain was as preoccupied with the “furious competition” as Pasteur’s France or Koch’s Germany. Endorsement of the miasma theory, in other words, did not equal withdrawal from the scientific rivalry.

⁴⁴ Evans, viii.

⁴⁵ Evans, 269.

Chapter 4

Colonial Medicine

Did the British handling of epidemics in their colonies represent a deliberate attempt to ignore the ravages of the disease in order to concentrate on more important economic priorities? Or was their seeming incompetence a result of genuinely subscribing to scientific theories that would later be proved inaccurate? In *Epidemics and History*, Sheldon Watts sets out his argument, influenced by Foucault, that imperialist powers tackled “disease constructs” rather than actual diseases, with the goal of “Development” (in the economic sense), rather than the eradication of disease or the improvement of public health.⁴⁶

Michael Worboys, in his review of the book, says that some social historians have a problem with the book’s “simplification” of complex colonial motives under the buzzword of Development, that imperialists had less real power and scientific knowledge than Watts assumes, and that it is difficult to separate the “objective facts” of disease from their cultural construction. In reference to Watts’s chapter *Cholera and Civilization*, Worboys writes that the British reluctance to accept Koch’s discovery of the cholera bacillus was “well-grounded in the ‘facts’ and...the choices between different sanitary policies were openly debated.”⁴⁷ After all, there is a place for skepticism in science, and there were questions to be asked about Koch’s findings.

Watts, however, has amassed evidence to suggest that British responses to cholera were not always as misguided as they were in the late nineteenth century. His reading of the sources

⁴⁶ Sheldon Watts, *Epidemics and History: Disease, Power and Imperialism* (Yale University Press, 1997).

⁴⁷ Michael Worboys, review of *Epidemics and History*, by Sheldon Watts, “History in Focus: Medical History” (May 2000), available at: <http://www.history.ac.uk/ihr/Focus/Medical/revepidemics.html>. Watts’s response is available at: <http://www.history.ac.uk/ihr/Focus/Medical/respepidemics.html>.

has convinced him that during the 1850s, British policies were generally in tune with the science of the day, but in the year 1868, a “great reversal” took place, wherein the British refuted germ theory and instituted policies that either ignored the problem of cholera or made it worse. Watts writes:

Concealment and amnesia were intended to support Britons’ image of themselves as humanitarians who were not driven solely by commercial self-interest, despite what foreigners might claim. Feigned unawareness (and among lower-echelon officials, very possibly actual unawareness) of changed cholera policy was also supportive of the fiction that the preservation of age-old socio-political and legal systems was a particular virtue that set the English apart from the fickle revolutionaries on the other side of the Channel.⁴⁸

The “preservation of age-old systems” that Watts mentions refers to the British strategy of “indirect rule,” using indigenous systems of authority to control territory more efficiently. Watts argues that the British portrayed indirect rule as a cohesive, rational policy, when in fact they were simply uninterested in an interventionist cholera strategy. When the principal health official in India, James McNabb Cuningham, was revealed as a contagionist in his report on the 1867 cholera epidemic, Watts shows how London developed an “ideology” that could counter calls for quarantine, then attempted to discredit dissenting voices. Watts criticizes British and “Anglophile American” historians for not examining the 1868 policy switch more closely. He argues that British leaders deliberately based policy on bad science to further their own ends.

Watts is not alone in his reasoning, although he has advanced it most fully. Other scholars’ work follows his general argument. The following are selections from various scholars’ work on British India:

“The apathetic rulers intervened, even though half-heartedly, only when it affected their work...” “Supposedly wedded to a policy of laissez-faire, the British rulers did not hesitate to deviate when imperial interests so dictated.” “Thus, comprehensive public

⁴⁸ Sheldon Watts, “From Rapid Change to Stasis: Official Responses to Cholera in British-ruled India and Egypt, 1860-c1921,” in *Journal of World History* 12:1 (Fall 2001), 324.

health...did not make it to the priority list of British rulers.” “British rulers, dominated by class interests of the landlords and wealthy merchants, were insensitive to the abysmal health conditions of the ordinary people.”⁴⁹

In *Colonizing the Body*, David Arnold does not focus on the question of imperial motivation, but he agrees that the British in India had an “ostrich-like” policy, preferring “for political and commercial reasons to pursue a noninterventionist, laissez-faire policy toward cholera.” This was based on the “‘Orientalist’ assumption that India was intrinsically different from Europe.”⁵⁰

Mark Harrison also argues that Britain used outdated ideas as tools to support their preferred policies. “Political and professional interests impinged directly on medical theory,”⁵¹ according to Harrison, as the Anglo-Indian government’s position on cholera as a localized disease was developed to support their anti-interventionist, anti-quarantinist health policies:

In India the debate over cholera was intertwined with the issues of internal and maritime quarantine, and with questions of government finance. The government came to adopt an official position on cholera which vindicated its policy of limited intervention in public health and its opposition to the quarantines imposed against India.⁵²

Harrison pursues a similar line of argument to Sheldon Watts as he traces how the government deliberately manipulated scientific information so as not to damage the basis of their policies.

In order to maintain its policy of detachment from public health, the government was prepared to go to extraordinary lengths, manipulating the flow of information and theoretical discussion in official circles...the rigidity of official doctrine between 1870 and 1890...served only to diminish the government’s credibility abroad.⁵³

There seems to be a growing scholarly agreement that while Britain’s official theories on the causes of cholera might have been culturally influenced, in the imperial context, scientific theory

⁴⁹ All quoted in Amiya Kumar Bagchi and Krishna Soman, eds., *Maladies, Preventives and Curatives – Debates in Public Health in India* (New Delhi: Tulika Books, 2005).

⁵⁰ David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (University of California Press, 1993), 195.

⁵¹ M. Harrison, 100.

⁵² M. Harrison, 100.

⁵³ M. Harrison, 116.

was purposefully employed to provide a rationale for policies that would coincide with British economic interests.

The evidence brought up in this thesis cannot confirm or disprove Watts's bold argument that British imperial disease policy constituted deception, while officials knew that their actions were causing thousands of deaths. However, it supports the claim that science was used to support economic goals. Even so, as I discuss in the next section, and as Worboys pointed out in his review of Watts's book, the British had several reasons to have confidence in their sanitationist approach to disease, and their actual motivations were probably a mix of purposeful tailoring of theories to support their trade interests, and of influences from a longtime cultural tradition of British hygienic superiority. Their approaches to disease in the domestic and imperial contexts were somewhat consistent.

In the next chapter, I will discuss the importance of hygiene and sanitary police for Britain's self-image as a civilized country and for its approach to fighting disease.

Chapter 5

British Perceptions of Their Own Hygienic Superiority

During the late nineteenth century, living a clean, orderly life was perceived as a sign of civilization. This idea was bound up with imperialism: Europeans, especially in Africa, made frequent references to the unsanitary habits and dwelling places of the peoples they encountered and colonized. Exporting the outward trappings of European life – living in square rather than round houses, for instance – was an attempt to export Western “civilization.” European cultural superiority was not a new idea in the late nineteenth century, but it gained new power during this period: as European countries competed for colonies, hygiene became a marker of social evolution. Historian Anne McClintock, in her discussion of the importance of soap for Britain in the late nineteenth century, argues that “at the beginning of the nineteenth century, soap was a scarce and humdrum item and washing a cursory activity at best. A few decades later...Victorian cleaning rituals were peddled globally as the God-given sign of Britain’s evolutionary superiority.”⁵⁴

For the British, good hygiene was both a marker of superiority and the most effective way to combat disease, on both the domestic level and the communal level. Edwin Chadwick, Florence Nightingale and other prominent Britons all believed that improving public sanitation was the most important way to improve the health of a nation.⁵⁵ According to Peter Baldwin,

Sanitationism, in its all-explaining Chadwickian version, was more than just an account of disease etiology. At its broadest, it was a totalizing worldview resting on certain presuppositions concerning the balance of nature and the role of illness and disease in the divine harmony of the universe.⁵⁶

⁵⁴ McClintock, 207.

⁵⁵ M. Ramanna, Western Medicine and Public Health in Colonial Bombay (London: Sangam, 2002), 141.

⁵⁶ Baldwin, 127.

As the century went on, the divine became less important, but the significance of sanitation for Britain remained strong.

In 1885, Dr. Ballard of the Local Government Board in Britain declared that “sanitary science [is] the product of the English Mind.”⁵⁷ England, with its squalid industrial cities and severe air and water pollution, certainly cried out for change. Through legislation like the 1866 Sanitary Act, the gathering of statistics, and public projects to clean up filthy rivers, many British officials tried to clean up their environment. The theme of action in the face of squalor would be often brought up during the 1883 epidemic.

Another reason that the British could be confident in their approach to dealing with cholera was their comparative freedom from the disease; severe epidemic cholera had not occurred in Britain since 1866, and although cases occurred in 1872, there were “very few deaths and no epidemic crisis.”⁵⁸ The causes for this are uncertain; Watts attributes British good fortune to quarantine:

It is a cause for wonderment that the English were not regularly decimated by epidemic cholera in the decades following what was in fact the last major visitation – that of 1866-67... Aside from the contingencies of change... what probably saved the English was the imposition of quite rigorous quarantine controls between India and points west.⁵⁹

Whatever the cause, the situation bred confidence. According to historian Anne Hardy,

England’s limited experience of cholera between 1867 and 1892 encouraged public complacency [reflecting] the growth of confidence in the sanitary service, as well as a wider public interest in sanitary matters... [cholera’s] continued existence on the Continent was a further illustration, if need be, of superior English standards of hygiene, and generally greater degree of civilization.⁶⁰

⁵⁷ A.S. Wohl, Endangered Lives: Public Health in Victorian Britain (London: Methuen, 1984), 142.

⁵⁸ Watts, 112.

⁵⁹ Watts, 200.

⁶⁰ Anne Hardy, “Cholera, Quarantine and the English Preventive System, 1850-1895,” in Medical History 37 (1993), 263 and 265.

This emphasis on hygiene as a sign of progress also manifested itself in the domestic sphere. In *Imperial Leather*, Anne McClintock discusses the images of imperialism and racial superiority in soap advertising during the New Imperial period, demonstrating how the link between hygiene and ideas of race and progress played on British anxieties.

McClintock argues that soap connected the middle-class virtues of domesticity and cleanliness to the insecurities and rivalries of the era: “Both the cult of domesticity and the new imperialism found in soap an exemplary mediating form.”⁶¹ Ironically, through the excision of women’s work, soap – a feminine, domestic symbol – came to represent “the sphere of male ‘rationality’ although the logical link was tenuous...soap advertising...took its place at the vanguard of Britain’s new commodity culture and its civilizing mission.”⁶² Soap linked the middle-class virtues of cleanliness in the home with the imperial mission to uplift foreign peoples.

The reports and official correspondence regarding cholera were clearly not meant for mass consumption in the same way as a bar of soap; the debate over the origin of cholera only ever reached a limited audience. However, the fear of cholera and the conversation about what could be done to control it took place in the public sphere as well as in diplomatic and scientific circles. Advertisements offering various “miracle cures” proliferated in newspapers during the fifth global cholera pandemic (1881-1896), and politicians, journalists, and lecturers assured the jittery public that the same British common sense and cleanliness that had kept the country cholera-free for some years would continue to protect them.

Another perceived British advantage was the British climate, which some thought was particularly suited to good health, as opposed to the hot, disease-ridden tropics. There was a

⁶¹ McClintock, 208.

⁶² McClintock, 208.

difference of opinion here: some thought that the differences in the incidence of epidemic disease in Europe and the tropics was due to differences in hygiene, while others thought they had more to do with the tropical climate and environment that negatively influenced Britons as well as “natives.” Britons brought up in India “did not reach ‘the same high physical and mental standard as those...who had been born in the United Kingdom,’” one official wrote.⁶³ Although the press referenced climate during the 1883 epidemic, officials almost exclusively concentrated on hygiene, emphasizing the ability and need of Britain to take *proactive* action to temper the effects of the epidemic.

Through her close reading of soap advertisements, McClintock concludes that the many aspects of the New Imperial rivalry cannot be explained solely by economics:

The Victorian obsession with cotton and cleanliness was not simply a mechanical reflex of economic surplus...Soap did not flourish when imperial ebullience was at its peak. It emerged commercially during an era of impending crisis and social calamity, serving to preserve, through fetish ritual, the uncertain boundaries of class, gender and race identity in a social order felt to be threatened by...economic upheaval, imperial competition and anticolonial resistance. Soap offered the promise of...a regime of domestic hygiene that could restore the threatened potency of the imperial body politic and the race.⁶⁴

Through its practical success in Britain and its connections to ideas of civilization, class boundaries and British superiority, hygiene became a powerful idea for Britons during the late nineteenth century, which, as McClintock points out, was a time of uncertainty and fear of resistance and changing boundaries.

One source of both pride and anxiety was the British occupation of and continuing presence in Egypt. The situation triggered doubt from British liberals, even though it was a

⁶³ For more discussion of the climate issue, see David Livingstone, “Tropical climate and moral hygiene: the anatomy of a Victorian debate,” British Journal for the History of Science 32(1999): 93-110. The quote is from Livingstone, 96.

⁶⁴ McClintock, 211.

Liberal government that launched the military occupation in 1882. In the next chapter, I will give the background for the British presence in Egypt.

Chapter 6

The British in Egypt

Cholera broke out in Egypt just one year after British forces took control of the country. The officials of the new “British protectorate” were still trying to negotiate their role in governing Egypt, even as Britain’s leaders assured outsiders that the occupation was only temporary. Lord Cromer, technically Egypt’s second British “proconsul” (1883-1907) but in reality its colonial ruler, claims in his book Modern Egypt to speak for Britain in explaining why his country occupied Egypt. Cromer argues that Egypt’s economic and military collapse made foreign intervention necessary for the survival of British and European interests in trade routes, especially the Suez Canal. He maintained that it was impossible for a country that had been perennially colonized to suddenly take full control of its own affairs.

So why was it necessary for Britain to intervene as opposed to any other power? Cromer rhetorically poses the question, but to him the answer is self-evident. With their “special aptitude” for dealing with “Orientals,” the British were better suited than other colonizers. Even though the occupation led to strained relations with France and dragged Britain into squalid “Continental politics,” nothing could stop a nation that “cannot throw off the responsibility which its past history” proves it was meant to shoulder.⁶⁵

From the beginning, occupying Egypt was a conscious choice meant to stave off the possible chaos of French control of an economically vital territory, although Robert Harrison makes the point that British power was already predominant by 1876 with the Suez Canal, and

⁶⁵ Lord Cromer, Modern Egypt (New York: Macmillan, 1908), xvii-xviii.

invading Egypt was Gladstone's way of protecting the empire's security interests.⁶⁶ More so than for other colonies, London was directly involved in Egypt's governance, especially at the beginning of the protectorate. Robert Tignor explains that

since technically Egypt retained the status of a semi-independent state, it was controlled through the British Foreign Office, rather than through the Colonial Office...the control was more strict than customary because Egyptian affairs were unpopular at home with anti-imperialist groups, and the home government was desirous of keeping affairs in Egypt quiet. The home government laid down general lines of policy for its administrators in Egypt to carry out.⁶⁷

Perhaps the classic image of the foot soldier of imperialism is someone of lower-class origins seeking status and riches in an exotic land. Cholera, however, was dealt with not by provincial officials – the bureaucracy was just being set up in Egypt – but as a centralized process led by the Foreign Office in London and the delegations of medical men they sent to Egypt.

In 1883, Britain dealt with its year-old colonial responsibilities in Egypt under the watchful eyes of liberal critics at home, as well as foreign powers ready to seize upon any indication that the British planned to make their rule permanent (a contention Britain denied “no fewer than sixty-six times between 1882 and 1922”⁶⁸). The occupation was, historian Niall Ferguson argues, the “real trigger for the African Scramble,” the signal to France and other European powers that drastic action was necessary before the British added all of Africa to their empire.⁶⁹

⁶⁶ Robert Harrison, Gladstone's Imperialism in Egypt: Techniques of Domination (Westport; London: Greenwood Press, 1995).

⁶⁷ Robert L. Tignor, Public Health Administration in Egypt Under British Rule, 1882-1914 (Ph.D. diss., Yale University, 1960), 59-60.

⁶⁸ Ferguson, 195.

⁶⁹ Ferguson, 195.

When cholera broke out at Damietta in June, the British knew that their policies, and whatever justifications they provided to bolster them, would have a significant impact – not only on their own trade routes, but also on Britain’s relationships with its imperial competitors.

Part II: Britain and the Egyptian Cholera Epidemic of 1883

In times of panic, the perception of control over a situation often gives people comfort. During the cholera pandemics of the nineteenth century, those who thought the disease was contagious wanted to seal off Europe's borders against bacteria from the East. It was a near-impossible task, with international trade constantly increasing, but it drove the agenda of international sanitary conferences throughout the second half of the century. When French engineer Ferdinand de Lesseps completed the Suez Canal in 1869, it acquired huge importance for Europeans who wanted control over who and what could enter the continent. Ships coming from India, the presumed birthplace of Asiatic cholera according to contagionists, would now pass through a European-controlled checkpoint. For contagionists, and for the many Europeans whose knowledge of science was limited but who believed that one could catch cholera from a diseased person, proper policing of the Canal was essential.

Therefore, when the British gained control of Egypt and partial control of the Canal in 1882, a potentially delicate situation arose. Britons were traditionally skeptical of quarantine, believing it to cause more problems than it prevented. Specifically, Britain's exports had risen by 23 percent from 1879 to 1883⁷⁰, and it was a costly inconvenience when ships were quarantined for as long as several weeks before people and goods were allowed to disembark. Continental countries did not have long to wait before they found their fear of British irresponsibility confirmed. In late June 1883, cases of cholera began to occur in Damietta, a port city located at the intersection of the River Nile and the Mediterranean Sea. Within weeks thousands of people were dead and the disease had spread to nearby towns.

⁷⁰ William G. Hynes, The Economics of Empire: Britain, Africa and the New Imperialism 1870-95 (London: Longman Group, 1979), 35.

For contagionists, the cause seemed clear: some person had become infected in Calcutta, an Indian city also suffering from a cholera epidemic. He had traveled to Egypt by ship, disembarked at Suez, and gone to Damietta where his germs had infected the local population. Soon, suggestions about the identity of this person were circulating; some even suspected it was a British government official. Aside from the sanitary and medical care necessary, two further policies seemed to follow logically from this theory of causation. First, the Suez Canal had to be quarantined. Second, the epidemic, just across the Mediterranean from Europe, provided a chance for scientists to test corpses and infected matter to try to isolate the cholera bacterium, an essential next step in understanding the disease and moving toward a cure.

Unsurprisingly, the British officials who controlled the Egyptian government endorsed neither the contagionist theory nor the policies it spawned. The idea that cholera had originated in British India and entered Egypt on a British ship was particularly troubling. The British therefore took the opposite position, one that enjoyed dwindling support from scientists: that local environmental factors caused cholera. They believed that the disease arose, in an as-yet-undiscovered process, in places of filth and stench, where the air had a peculiar quality – as if spores of cholera were breeding in it – and even birds could not stand to live.

In the face of such a situation, the logical approach would be to clean up the local environment and work to change the unsanitary habits of the population. The British pursued these tactics “energetically,” as they often described themselves. The government in London sent Surgeon General William Guyer Hunter, a medical delegation, and extra British troops to, in turn, investigate the causes of the epidemic, treat patients, and keep order. Treating cholera as a disease of local origin made sense economically for the British, and it was also consistent with

certain strains of British culture that emphasized good sanitary practices and competent public health policies as the most effective methods of disease prevention.

However, the diplomatic and scientific debate between Britain and Continental Europe during the 1883 epidemic was not as simple as the description above might make it appear. Several factors influenced British policy: their admired sanitary tradition, their presence as the colonial power in Egypt, and their economic interest in the Suez Canal. But the British officials also tried to prove their theory and policy scientifically. Representatives of Her Majesty's Government trekked through disease-ridden cities, sought information from local doctors, and kept careful records partially in order to mount a credible scientific challenge to the bacteriologists Koch and Pasteur.

I discussed the reasons for this effort, focusing on the historical context of the New Imperialism and the struggle for prestige, modernity and civilization, in my literature review. In this section, I will show how the language of the British reports and correspondence during the epidemic supports my claim. Unfortunately for the British, but fortunately for the future of infectious disease research, Koch discovered the cholera bacillus in Alexandria in late 1883 and verified his finding in Calcutta early in the next year. However, in the summer of 1883, the British exploited the lack of conclusive evidence for germ theory. The multiple contradictions in the internal logic of the British approach, which I will explore in this next chapter, indicate that the British arguments were aimed at presenting the *image* of scientific objectivity, as opposed to their stated goal of trying to arrive at the truth of the situation.

Chapter 7

The Importance of Remaining Objective

It has become the fashion to refer to the origin of all epidemics, especially the epidemic of cholera (a disease of whose origin we know almost nothing), to imported contagion; but satisfactory evidence is still wanting that this is the case.⁷¹

–Dr. Mackie, British medical officer

On every occasion of an outbreak of cholera some plausible story has been invented to show how the disease has been imported.⁷²

–Earl Granville, British foreign secretary

Facts...lead to the conclusion that cholera, be it called by whatever name it may...has existed in Egypt for some time past...In order to obtain as much information as possible on the subject above referred to, instructions have been issued to the medical officers recently arrived from England to institute cautious and careful inquiry.⁷³

–Dr. William Guyer Hunter, British Surgeon-General

For any rational observer, accepting the current “fashion” for “imported contagion” without any “satisfactory evidence” would be irresponsible indeed, writes Dr. Mackie, Britain’s delegate to the Egyptian Quarantine Board, in the first quote above. Foreign Secretary Granville dismisses the importation theory as “some plausible story.” The third quote is taken from correspondence included in Dr. Hunter’s report on the epidemic. It is one of many indications

⁷¹ Dr. Mackie, “Report Concerning Cholera in Egypt,” (20 August 1883) in Further Reports Respecting Cholera in Egypt (Foreign Office, November 1883): 61.

⁷² Circular to H.M. Representatives in European Countries, on recent Outbreak of Cholera in Egypt, Cmnd. 3729 (1883), 2.

⁷³ Further Reports By Surgeon-General Hunter on Cholera Epidemic in Egypt, C. 4904 (1883), 3-4.

Note: In future citations, Further Reports Respecting Cholera in Egypt will be abbreviated as Further Reports, either C. 4904 or C. 4972, and Further Reports by Surgeon-General Hunter on Cholera Epidemic in Egypt will be abbreviated as Further Reports by Surgeon-General Hunter. Circular to H.M. Representatives in European Countries, on recent Outbreak of Cholera in Egypt will be abbreviated as Circular to H.M. Representatives in European Countries.

that, unsurprisingly for representatives of a country with important trading interests at stake, British officials tried their best to amass evidence in support of the local-origin theory. Ironically, much of their writing nonetheless reads like a paean to the scientific ideal of objective inquiry.

Britain's approach was as contradictory as the three quotes above indicate: first, officials tried to establish that it would be premature to assign a definite cause to the epidemic given the current state of science; and second, they wanted to give the impression that there was a large body of evidence to support the theory that local factors caused the epidemic. Mieville, a British consul in Egypt, illustrates the first objective when he writes that:

A strong party exists in Egypt intent on showing that the scourge now unhappily decimating a large district of the Delta has been imported from Bombay, and further that the Egyptian Board of Public Health have identified themselves with this party...if it is hoped ever to definitely solve the question of the origin of the disease, the inquiry must surely be approached in an independent spirit, and not with the manifest intention of seeking to establish a foregone conclusion either one way or the other.⁷⁴

Mieville distances the British from the sordid motives of politics and economics, implicitly attributing to himself and to other officials an "independent spirit," the ideal of professional science in the modern age. Equally important, Mieville casts contagionists as a "party" or pressure group, the opponents of independent science, motivated to establish the origin of the epidemic as Bombay for political, anti-British reasons. He portrays the use of science to support a political goal as inappropriate and un-British.

To make themselves appear objective, British officials linked the contagion theory with pre-formed prejudices and political motives. "It is hardly worth while to discuss the oft-repeated and oft-refuted story of the importation of the disease from India," writes Hunter on page four of

⁷⁴ Correspondence respecting Cholera Epidemic in Egypt C. 3783, C.3788 (1883), 39-40.

his report, and proceeds to spend much of the next eighty pages refuting that very same “story.”⁷⁵

Had contagion not gained so much sway in the minds of Europeans and Egyptians, Hunter presumes that his task would be much easier:

It is this fixed idea of importation that renders inquiry so difficult, and causes all the believers in such a hypothesis to ignore testimony which to an unbiased mind would be plain and clear. It does not fall to every one’s lot to be able to shake off preconceived opinions...and to accept the facts as they see them; could they do so, I cannot avoid the conclusion that little difficulty would have been experienced in supplying the links in a chain, which probably, at this distant period, will never be found.⁷⁶

Importation is associated with the language of the superstitious, pre-scientific past: “fixed idea,” “believers,” “preconceived opinions.” The scientific term, “hypothesis,” suggests that importation is just a theory, as-yet unproven. By contrast, those who are able to remain “unbiased” and conduct “inquiry” are “plain and clear,” “accept[ing] the facts.” Hunter also notes that “it does not fall to every one’s lot” to remain unbiased, an evocative phrase. Are some people naturally less capable of objective thought than others? Most Europeans would have agreed that Egyptians, being “Orientals,” fit that description. In fact, some Egyptians did support the importation theory, actively resisting Britain’s handling of the epidemic and its presence in Egypt in general. However, in the above passage Hunter equates *all* supporters of the importation theory with biased, superstitious non-Westerners, a value-laden connection that I will discuss more fully in Chapter 9.

Britain was far from the only country to use science as a political tool. But it was perhaps unmatched in its hypocrisy: Despite numerous protestations of objectivity in the name of science, almost every observation in the British correspondence and reports is brought up to support the local-origin theory. As intent as some were to prove that cholera came from India on

⁷⁵ Further Reports by Surgeon-General Hunter, 4.

⁷⁶ Further Reports by Surgeon-General Hunter, 4.

a British ship, the British were equally intent to prove that it did not.

The pursuit of this goal involved the use of many kinds of evidence, weighted towards but by no means confined to the atmospheric observations that characterized the miasma theory. Unsanitary lifestyles⁷⁷, filthy water⁷⁸, disposal of waste, animals and corpses⁷⁹, burial practices⁸⁰, animal behavior⁸¹, the weather (“the sky was lead-colored, the atmosphere oppressive...the sparrows deserted the town, and did not return until the epidemic was on the decline”⁸²), patterns of diarrhea occurrences⁸³, the movement of the moon⁸⁴, and other factors were eagerly considered by the British in the effort to give the impression of reasonable proof for the local-origin theory.

This contradiction between this effort and the concurrent claims to objectivity went almost unacknowledged. Dr. Mackie did admit that “it may be said” that his support of the local-origin theory “is purely speculation,” but he seems to find the reply self-evident: “I reply that it is less speculative than that the disease was imported direct from Bombay.”⁸⁵ We can see the results of the contradiction in Hunter’s dealings with several doctors in Egypt, both foreign and Egyptian. Hunter was looking for information that pre-epidemic cases of a cholera-like diarrhea known as “cholérine” were actually mild cholera, hidden – purposefully or not – by a euphemism. This would establish that whatever caused cholera had been present in Egypt before the official start of the epidemic and, therefore, before the arrival by ship of agents that

⁷⁷ Further Reports, C. 4904, 60.

⁷⁸ Further Reports, C. 4904, 60.

⁷⁹ Further Reports by Surgeon-General Hunter, 2.

⁸⁰ Further Reports, C. 4904, 34.

⁸¹ Further Reports by Surgeon-General Hunter, 4.

⁸² Further Reports by Surgeon-General Hunter, 4.

⁸³ Further Reports by Surgeon-General Hunter, 6.

⁸⁴ Further Reports by Surgeon-General Hunter, 4.

⁸⁵ Further Reports, C. 4904, 61.

contagionists had named as potential causative elements.

A doctor named Sierra was one of those who supplied Hunter with records of cholera cases, and one of several who hoped that his reports would not be used to disprove the theory of importation. In his letter to Hunter, which Hunter enclosed in his report to the Foreign Office, Sierra expressed concern over the possible uses of his evidence:

Importation should...be proved by careful inquiry before being admitted; yet, on the other hand, the theory of the production of the germ on the spot leads to conclusions which are perhaps even rasher still from the point of view of scientific logic...I think that the present state of science urges us to be extremely reserved in affirming either theory, if we wish to act in the rigorously scientific manner in which the Tyndals, Pasteurs, and other great men proceed in their investigations as to ferments and their propagation.⁸⁶

Hunter portrays this reluctance to rush to conclusions as evidence that the theory of importation had such a strong hold over some Continentals and Egyptians that even the evidence of their own eyes could not sway them from the position:

Dr. Ambron [a doctor who held similar views to Sierra], like the majority of the medical men in this country, is a firm believer in the importation of the disease from the delta of the Ganges, and unless it can be so traced, he declines to accept what would seem to me to be the evidence of his own senses.⁸⁷

“Dr. Sierra’s facts are of great value,” Hunter concludes, but “his conclusions...I cannot accept.”⁸⁸ Without any acknowledgment of the irony of the situation, Hunter’s spirited backing of the local-origin theory becomes dispassionate and objective, while Sierra’s refusal to endorse either theory on the grounds of inadequate evidence is a sign of bias and foolish allegiance to a “fixed idea.”

⁸⁶ Further Reports by Surgeon-General Hunter, 6.

⁸⁷ Further Reports by Surgeon-General Hunter, 4.

⁸⁸ Further Reports by Surgeon-General Hunter, 3.

In London, Earl Granville, the Foreign Secretary, received Hunter's reports with "interest" and "satisfaction"⁸⁹ and worried about escalating costs and negative press. On at least one occasion, Granville asked specific questions of his officials, hoping to add his own ideas to the case against importation. "Your Lordship asks me whether, before the outbreak of the cholera epidemic at Damietta, I have received intelligence as to the unsanitary state of that town," replied Sir Edward Malet, Egypt's proconsul until September 1883 (he was succeeded by Lord Cromer), to Granville:

I was not aware that Damietta was in a worse sanitary condition than other towns... It may be as well to state, in this connection, that there is good evidence that the epidemic did not originate at Damietta, and that before it broke out there it existed in villages in the neighborhood and other parts of Egypt.⁹⁰

From the reply it seems that Granville wanted to help the British pseudo-scientific process, asking whether Damietta, the town where the epidemic broke out, was dirtier than other towns in Egypt. Malet hastened to reply that although Damietta was not noticeably less sanitary than other Egyptian towns, the epidemic might have started in other villages that, presumably, were particularly dirty.

In addition to negative portrayals of the importation theory, the British treated quarantine itself – the usual reaction to importation – as a policy provoked by panic rather than reason. The sanitary cordons around Egyptian cities earned a reputation, probably deserved, in the British media as disasters, leaving hundreds of people without access to medical care or supplies. Quarantine itself was also vilified. In a circular to British diplomats at Continental consulates, Foreign Secretary Granville laid out the government's response to "the tone adopted by a great number of the Continental newspapers upon the subject of the recent outbreak of cholera in

⁸⁹ Despatch from Sir E. Malet, Inclosing Report by Surgeon-General Hunter, on Cholera Epidemic in Egypt, C. 3732 (1883), 3. (*Hereafter* Despatch from Sir E. Malet).

⁹⁰ Further Reports, C. 4904, 43.

Egypt...Her Majesty's Government would not have considered it advisable under ordinary circumstances to notice similar attacks had it not appeared that they are exciting a feeling against this country unjustified by facts."⁹¹ Granville impressed upon the diplomats that "quarantine is not only useless but actually hurtful," and that sanitary cordons

[are] calculated, for moral and physical reasons which are easily understood, to increase the number of persons attacked, to intensify the virulence of the disease...while the unfounded belief in the security given by quarantine discourages the adoption of those sanitary measures which alone are proved to check the spread of the epidemic.⁹²

Granville not only attacks the panic and suffering caused by sanitary cordons, but the wording of his statement seems to suggest that they were implemented with malicious intent. Granville does not elaborate on this remarkable accusation, so it is difficult to tell whether he suspected that the mixed Egyptian-European health authorities were trying to increase the chaos that they could then blame England for creating, or whether he suspected some other motive.

Either way, cordons and quarantines were attacked by the British government and press as useless, harmful and irrational. Mackie wrote that fear of quarantine led "Europeans as well as Egyptians" to misrepresent cases of cholera-like diarrhea before the epidemic: "This is the outcome of quarantine and one of the abuses which its irrational employment leads to."⁹³

According to Mackie, the fear of quarantine and "sanitary cordons" silenced the truth because doctors, not wanting Egypt to be placed in quarantine, misrepresented pre-epidemic cases of cholera as cholera or diarrhea instead. Quarantine not only caused panic and other uncivilized behavior, it also stifled the course of objective inquiry.

⁹¹ Circular to H.M. Representatives in European Countries, 2.

⁹² Circular to H.M. Representatives in European Countries, 2.

⁹³ Further Reports, c. 4904, 74.

Although Hunter advised the British government to withdraw the sanitary cordon around Alexandria, the British refrained, knowing that panic and possibly riots or rebellion would result,⁹⁴ but they resented the decision; Mackie wrote,

It has been proved that the fancied safety by quarantine creates a carelessness to all other sanitary improvement... I most firmly believe that, had the money spent on, and the attention given to, quarantine for many years past, been spent on proper sanitary improvements... [and] proper State supervision of public health, the present epidemic of cholera would not have been devastating Egypt. I would put the question in a practical, if not a scientific way, for science as yet has taught us little about cholera.⁹⁵

In other words, quarantine breeds panic and carelessness, and although “science” was not sufficiently advanced to draw a bacteriological conclusion as to the cause of the epidemic, the “practical” evidence indicated otherwise. Journalists and some scientists in Britain echoed this sense that British sanitary efforts to fight cholera were on an equal footing with Continental attempts to find the bacterium that caused it.

One lecturer, a Dr. Evans, told his audience:

The French Government has granted 50,000 francs to the celebrated pathologist, Pasteur, in order to send out a scientific mission to Egypt to investigate whether cholera be not due to the development of a microscopic animal in the human body... There are many English medical men at present in Egypt, also representatives of many leading civilized countries, so that ere long we may hope to have some reliable information regarding this disputed question.⁹⁶

The rest of Evans’s talk is more clearly partisan, following Hunter’s lead: an explication of the various other factors – physiological, meteorological, even geological – anything that could

⁹⁴ Sir Edward Malet, Telegram to Earl Granville (27 July 1883), in Reports Respecting the Cholera Epidemic in Egypt (Foreign Office), 46.

⁹⁵ Further Reports, C. 4904, 61.

⁹⁶ C.W. De Lacy Evans, Cholera: Its Causes and Prevention (London: Balliere, Tindall and Cox, 1883), 8.

mitigate the unfortunate tendency to give “too much attention...to the germ theory of disease, which is often erroneous and speculative.”⁹⁷

Even after Koch’s discovery of the cholera bacillus, the equivocation and skepticism continued, with a government-sponsored report indicating holes in Koch’s argument and arguing that germ theory caused irrational panic among Europeans. Aside from some reasonable criticisms of Koch’s findings, the report noted:

It would be quite unjustifiable to maintain that the extraordinary panic which seized a section of the French and Italian nations on the visitation by the cholera in the summer of 1884 was caused by this theory of the commabacilli [cholera bacteria, which were shaped like commas], but considering the authoritative position that Koch occupies, and considering the very decided way in which Koch, his Government, and the daily and most of the medical press gave expression to this view, it is not unreasonable to say that the panic, although not caused, derived material support from it, for has it not been preached from day to day that the cholera evacuations are full of commabacilli, and that the commabacilli are the contagium of cholera? What, after this, is more natural than that the general public, reading such statements as coming from the highest authorities, should take up and spread the cry?⁹⁸

Therefore panic in the press and among the population, according to the report, could be not just partly ascribed to Koch’s discovery, but partly *blamed* on it.

In contrast to the panic created by quarantines and contagionism, the British portrayed sanitary policy as civilized and effective. In the Literature Review, I explored why some British officials placed so much faith in “proper” hygiene and practical efforts to stop cholera. How were these ideas used in 1883?

⁹⁷ Evans, 9.

⁹⁸ E. Klein and Heneage Gibbes, An Enquiry into the Etiology of Asiatic Cholera (Foreign Office, 1885), 4.

Chapter 8

Common Sense: The Practical Man's Cure for Cholera

A confluence of factors influenced the British government's confidence in their hygiene-focused approach to fighting cholera. First, they had the benefit of time: Britain had been free of epidemic cholera since 1866. Second, Britain had a distinguished and internationally recognized nineteenth century tradition of designing large-scale sanitary solutions to public health problems, from John Snow's meticulous map showing that cholera is waterborne to Edwin Chadwick's largely successful efforts to clean up the formerly putrid River Thames.

Third, although Britain is not known for its climate, its dewy green meadows and brisk, mild weather were advantages in the eyes of those who thought that weather influenced disease. British weather served as a contrast to the uncomfortably hot tropics, thought of as breeding grounds for disease. Finally, there was a notion, often cited but difficult to define, that some kind of "common sense" or basic sensibleness was especially strong in the British public. "Sanitary science" was commonly referred to as a set of "laws," and as in any organized field, Britain thought it represented the highest development of those laws. (In Chapter 9, I will discuss the similarities and differences in how the British viewed Egypt and Continental Europe with regard to these concepts).

The contrast between the conditions of health in England and those in Egypt – and the need for English people to share their knowledge with the less fortunate of other countries – was prominent even in missionary writings. In 1893, the Church Missionary Society described the Muslim world, particularly Egyptian villages, as wallowing in "suffering, sorrow and sin." In its lesson plan for teachers, it recommended that the teacher "describe the home life of an Egyptian

village. Bring out the prevalence of disease and suffering and the strange methods of relieving it. Give instances from medical mission work.”⁹⁹ The aim of the lesson was to inspire children from undoubtedly healthy English villages to feel sympathy for Egyptian suffering, a message inextricably linked to imperialism (the lesson’s accompanying diagram shows a crescent; the top half represents the millions of Muslims already under British rule, the bottom half represents the unlucky remainder of the world’s Muslims¹⁰⁰).

The British had a well-established sense of superiority in hygienic matters. In 1883, however, they felt a new need to *prove* their claims scientifically, to defend their worldview against that of their contagionist opponents. In this chapter, I will discuss how this worldview was evidenced in the reports and correspondence surrounding the epidemic, and how it coexisted with the British project to gain the upper hand scientifically in the debate over cholera in general and the 1883 epidemic in particular.

Although Britain had been free from cholera for some years, elements of its population received the news from Egypt with trepidation. Numerous advertisements for “cures for cholera” cropped up in newspapers during the summer of 1883, their authors hoping to capitalize on readers’ instincts for self-protection. For instance, an advertisement for “Eno’s Fruit Salt,” subtitled “The Great Jeopardy of Life in the Most Enlightened Period, the Nineteenth Century,” featured a quote from Chadwick on the importance of “sanitary science,” a letter from a satisfied soldier in Egypt, and a piece lamenting “how few know what a fearful state of sanitary ignorance we live in.”¹⁰¹ The government, journalists, and established scientists viewed panic with disapproval and attempted to pacify the population. The Illustrated London News stated that “it

⁹⁹ “Talks on Egypt: An Outline of Six Missionary Instructions, with Illustrations and Recitations, for Young People,” 1893, Church Missionary Society Archives, British Library: 10-11.

¹⁰⁰ “Talks on Egypt...”, 23.

¹⁰¹ Advertisement for Eno’s Fruit Salt, in Illustrated London News (18 August 1883), 175.

would also be a very good thing if, between this and the end of next September, we all did the utmost to *keep our tempers*...the most commonly repeated victims of the disease [cholera] are those...*of a passionate temper* [emphasis original].”¹⁰²

Also advocating for calm was former surgeon of the Gold Coast of Africa Dr. C.W. De Lacy Evans. Evans gave a lecture at London’s Royal Aquarium in which he counseled: “Although a fair amount of fear has been evinced in regard to the possible invasion of this country by cholera, I must say I think that the chances are remote. At the same time, it is pleasing to know that our sanitary affairs are at the present time in a much better state than they were during past epidemics.”¹⁰³

Why was Evans confident that Britain’s sanitary affairs were in such relatively good order? Perhaps because he thought that Britons had particularly good common sense, cited by many from the realms of science and politics as the best tool to keep cholera at bay. *If we are able to stay cholera-free by using our common sense*, they seemed to be saying, *surely some of the same, combined with sensible public health policies, would do wonders for the rest of the world*. The Illustrated London News editorialized during the 1883 epidemic: “Cordons have been well nigh abandoned as useless, and nearly everywhere there has been a total neglect of sanitary precautions, and a lack of that common-sense and cleanliness which is the best safeguard against cholera.”¹⁰⁴

Similarly, Dr. Evans, elsewhere in his lecture, said: “Cordons were useless, and quarantine caused great annoyance...The best preventives were cleanliness and good drainage. The lecture was listened to with marked attention, and a hearty vote of thanks was passed to Dr.

¹⁰² Editorial, Illustrated London News (28 July 1883), 79.

¹⁰³ Evans, 30.

¹⁰⁴ Editorial, Illustrated London News (12 July 1883), 7.

Evans,” wrote The Times.¹⁰⁵ The Daily News reported that prominent medical journalist and editor of the British Medical Journal Ernest Abraham Hart gave a lecture on cholera: “He denounced quarantines and cordons as cruel and selfish, morally wicked, and medically useless ... in England all men knew that what was needed in the way of prevention against cholera was common sense and cleanliness. (Cheers.)”¹⁰⁶ A writer for the Illustrated London News mentioned his household’s cleaning methods, then, aware of the growing feminine tone of the article, added, “Pardon me for alluding to such homely and inelegant matters. But none of us, I take it, desire to die before our time; and in ignoring the ABC of sanitation when the Cholera is at the door, we are really guilty of constructive suicide.”¹⁰⁷

Similar words, then, from a variety of representatives of the British establishment. But this Ernest Hart quoted above was the same doctor and writer who complained, as I discussed in the literature review, that the medical service in India failed to support cutting-edge research. Hart may have disapproved of quarantines and cordons, but British officials in India actually tried to use this “common sense” idea to compete with germ theory. How did they manage this?

In part, they described sanitation as a science with laws – such as the laws of motion or of gravity – that could be objectively measured. Egyptian villages were “a gross violation of sanitary laws”¹⁰⁸; in Britain “the laws of sanitary science...reached their highest development.”¹⁰⁹ As Anne McClintock argues, while cleanliness was traditionally seen as women’s work, during the late nineteenth century it also became a symbol of rationality and civilization – male domains. If sanitation was a science with laws, then cleanliness was not only

¹⁰⁵ The Times (4 August 1883), in Cholera: Its Causes and Prevention: A lecture by C.W. de Lacy Evans (London: Bailliere, Tindall and Cox, 1883), 3.

¹⁰⁶ Daily News (4 July 1883), 2.

¹⁰⁷ Illustrated London News (28 July 1883), 79.

¹⁰⁸ Further Reports by Surgeon-General Hunter, 1.

¹⁰⁹ Illustrated London News (4 August 1883), 5.

a way of judging a place's propensity for disease, but also of measuring the comparative development of nations.

Britain embraced its practical image as another way of being modern – an advantage over Continental Europe and a way to associate dirty, childlike Egyptians with unsanitary Continentals. Hygiene was considered a valid way to claim cultural and even evolutionary superiority, and it was a very powerful idea for many Britons. In the writings surrounding the 1883 epidemic, the British distanced themselves from the dirty, irrational Egyptians and emphasized the ways in which they were cleaning and improving the local population.

Historians Sheldon Watts argues that the British knowingly endorsed science they knew to be inaccurate in order to support their noninterventionist public health policies. When considering this question, it is important to keep in mind the distinction between an outright condemnation of the theory of importation, and the belief that good sanitation is more useful for preventing cholera than quarantine. The former was employed on occasion during the 1883 epidemic, as I have shown; the latter was a helpful and understandable view.

Tellingly, the Local Government Board's official statement on domestic British cholera precautions during 1883 admitted the possibility of contagion, but placed it in the context of existing sanitary conditions. The Board took the contagionist theory of fecal-oral transmission (the theory that cholera is transmitted from the feces of an infected person into the mouth of another) as fact, but made the reasonable point that the infected person does not have

any power of infecting [others] except in so far as particles of [his excrement and vomit] are enabled to taint the food, water, or air, which people consume. Thus when a case of Cholera is imported into any place, the disease is not likely to spread, unless in proportion as it finds, locally open to it, certain facilities for spreading by *indirect infection* [emphasis original].¹¹⁰

¹¹⁰ Precautions against the Infection of Cholera (Foreign Office, 1883), 22.

The Board's statement endorses contagion and not miasma theory, but places the most emphasis on the sanitary conditions of the locality. The author, medical officer George Buchanan concludes that:

Former experience of Cholera in England justifies a belief that the presence of imported cases of the disease at various spots in the country will not be capable of causing much injury to the population, if the places receiving the infection have had the advantage of proper sanitary administration...Cholera in England shows itself so little contagious...But Cholera has a certain peculiar infectiveness of its own [somehow different than smallpox], which, *when local conditions assist*, can operate with terrible force.¹¹¹

Buchanan's main recommendations for action to protect Britons concern not port quarantine but ensuring clean air and water.

Although medicine in the colonies generally lagged behind the state of the field at home, Britain's focus on sanitation was not a manufactured political gesture but a policy based on history and sound reasoning that officials were almost as willing to apply domestically as they were abroad. Officials in Egypt, however, did not just call upon sanitary policy but tried to create an alternative to the importation theory in order to disprove the idea that cholera had come from India on a British ship. Even if they had faith in sanitation to fight disease, it was just part of their overall effort. British officials may not have been purposefully dishonest, as Watts argues, but they certainly had economic and political goals in mind throughout their experience in 1883.

How did sanitationism serve Britain's political goals, reinforcing their right to rule Egypt and make their own policy decisions there? Britain's claims to hygienic superiority were, in their eyes, enough to claim a special ability to rule Egypt and could be used alongside "scientific" support for the local-origin theory as part of the argument against contagionists and

¹¹¹ Precautions against the Infection of Cholera, 22.

quarantine. In the next section, I will explore Britain's representation of hygiene during the epidemic and how it boosted their own claims to superiority.

Chapter 9

Not All Europeans Are Created Equal

As with most aspects of their rhetoric during the epidemic, the British attitude towards Continental scientists working to find the bacterium was contradictory. On the one hand, the British stressed their own difference, their practicality, common sense and ability to deal with hygiene. On the other hand, they tried to create an equivalency between their attempts to prove local-origin theory and the contagionists' attempts to find the cholera bacterium and prove their own theory. Their perspective was presented both as an equally valid scientific theory and as stemming from a superior culture of cleanliness and disease prevention.

To serve as a contrast to their own energy and scientific approach, British officials embraced the stereotype of Easterners as fatalistic and passive. Dr. Mackie wrote that:

The Egyptian has no initiative. He has no appreciation nor experience of good sanitary arrangements, which he has never seen and never learnt. The sympathy of class for class is too little developed, if it exists at all; their value of life is too low to stimulate them to energetic action. Fatalism also has its effect, and they act when driven to it by the howl and cry of Europeans. The Egyptian in this respect is the Egyptian of a hundred years ago, and deserves help more than blame; but it must be help with authority.¹¹²

Two important themes emerge in this passage. First, the Egyptians are characterized as incapable of action in the face of disease (a theme also prevalent in the press¹¹³).

Second, because Egyptians were in such need of outside help, European intervention is mandated, but it is imperative that help comes from the *right* Europeans. Because Egyptians were so impressionable, fatalism – in the form of accepting panic and quarantine rather than energetically improving their own sanitary situation – would be provoked “by the howl and cry

¹¹² Correspondence respecting Cholera Epidemic in Egypt, C. 3783, C. 3788 (1883), 23.

¹¹³ For articles about Egyptian fatalism in the face of disease contrasted with European fortitude, see Daily News (7 August 1883), 4; Illustrated London News (28 July 1883), 78.

of *Europeans* [emphasis mine].” Help from outside must therefore be “help with authority,” implemented by people who know what they are doing and will not abuse their authority and encourage unsanitary and Oriental, non-Western tendencies in the local population.

During the epidemic, British action in the face of disease was extolled and contrasted with the alleged inaction and incompetence of Egyptians. “The military hospitals, under the direction of British medical gentlemen, are of course well conducted,” reported the Illustrated London News.¹¹⁴ The newspaper was also confident that “The gallant staff of medical men who have gone out from this country will operate against the dread enemy [cholera] with as much resolution and promptitude as did Sir Garnet Wolseley at Tel-el-Kebir,”¹¹⁵ comparing Britain’s medical delegation to courageous imperial soldiers - surely as worthy of praise as any Continental scientist.

Proof that the British were fully competent to handle the epidemic in a manner that exemplified the best of the Western scientific tradition is scattered throughout the reports and correspondence. They were faced with a seemingly hopeless situation: “It is simply an abuse of words to talk of sanitation in connection with Cairo,” wrote Hunter.

Conditions for the development and spread of disease in almost every form, epidemic or otherwise, abound. They are here, there, and everywhere present to the sight, smell, and taste... [The surface cleansing of the city] is a decided gain, but the evil has deeper roots, which will require vigorous and carefully-directed measures for its repression.¹¹⁶

British officials set about countering the “evil” of an unsanitary country with a combination of medical care and public health measures such as whitewashing, moving cemeteries farther from towns, changing burial practices, etc. The British found the Egyptian Medical Department, which included Egyptian and foreign officers, as “quite incompetent...broadly accused of being

¹¹⁴ Illustrated London News (11 August 1883), 150.

¹¹⁵ Illustrated London News (11 August 1883), 150.

¹¹⁶ Despatch from Sir E. Malet..., 1.

ignorant, and of neglecting their duty through personal fear.”¹¹⁷ To counter this trend, the British and allied Egyptians such as the Khedive (King) displayed “energy and good sense.”¹¹⁸

Evelyn Wood, a British field marshal and future recipient of the Victoria Cross, complained to the Khedive of the conduct of some Egyptian officers and doctors. “I felt it my duty to express to Brigadier-General Yousef Shouhdi Pasha my great displeasure at the failure, both in himself and the officers under his command, to insure the execution of my orders as to the cleanliness and decency of his camp,” he wrote. Similarly, “the conduct of the Egyptian doctors (with some few exceptions)” disappointed Wood: “Mohamed Salim...completely broke down and communicated his fears to the attendants, and had it not been for the presence of the English officers, the patients would have been neglected.”¹¹⁹ British officers supposedly did their jobs well and, given they were operating in the middle of a cholera epidemic, with courage; they also took the opportunity to provide a positive example for the Egyptians who worked alongside them.

“It may fairly be said,” Malet wrote to Grenville, “that [the decline in the death rate] is mainly due to the energy with which the sanitary measures recommended by Dr. Hunter and the special Board of Health have been carried into execution, through the good-will and activity of the Government authorities.”¹²⁰ As the white child in soap advertisements was, in McClintock’s argument, the “agent of social progress” by cleaning the black child of his “dirty” skin, so the elite British colonial officers saw themselves as the agents of progress in Egypt.

In London, the popular newspaper *Illustrated London News* expressed a similar sentiment:

¹¹⁷ Despatch from Sir E. Malet, 1.

¹¹⁸ Further Reports, C. 4904, 35.

¹¹⁹ Further Reports, C. 4904, 27.

¹²⁰ Further Reports, C. 4904, 32.

Compared with Egypt – we might say with any Continental country – England is a land where the conditions of health are exceptionally favorable, and in which the laws of sanitary science have reached their highest development. Nor is our knowledge and enlightenment of a selfish nature. Our presence in the Valley of the Nile as a governing influence involves responsibilities which are fully recognized, and are now being acted on. British energy has at length overcome Oriental fatalism.¹²¹

The phrase “with any Continental country” is significant, because the newspaper is not only implying that Britain’s natural advantage in the fields of health and sanitation justifies its presence in Egypt over a similar claim by a Continental country, it is equating the Continental lack of cleanliness, knowledge, and energy with that of Egyptians.

In my literature review, I discussed how some scholars have linked the increasing anxiety about colonial rebellions in the late nineteenth century with the growing need to reaffirm European racial and social superiority to colonized peoples. Just one year into the occupation, anti-British sentiment was widespread in Egypt. A British consul named Cookson wrote to Granville that

There has been evinced a very bad state of feeling on the part of the ignorant native population. Reports have been spread among them, and too generally believed, not only that the English have introduced the cholera, but that the disinfectants, remedies, and even food given by the Sanitary Commission are poisonous...I know that similar groundless beliefs have often existed...during the prevalence of epidemics; but I think it right to point out the serious inference as to the state of feeling in this country which may be drawn from the suspicions of the population being now directed almost exclusively against the English.¹²²

The wary British linked anti-colonial rebellion with the theory that “the English have introduced the cholera,” another way to connect Britain’s enemies with anti-Western notions. Anti-British feeling is characterized as tribal and unfounded, a native prejudice that, in its irrationality, implicates the contagionist Continental scientific theories that have, according to the British, helped fan the flames of anti-Colonial sentiment. Thus, the contagionist theory is linked to that

¹²¹ Illustrated London News (4 August 1883), 5.

¹²² Further Reports, C. 4904, 50.

which no European government was willing to endorse – the collective anger of colonized peoples against the colonial European powers. In an age of racial paranoia and colonial anxiety, could there have been a more insulting insult?

Conclusion

British cholera policy in Egypt was an officially sanctioned political campaign, but many scientists at home – even while remaining in favor of the sanitary measures taken, and skeptical of quarantine – disagreed with their government’s decision not to send British bacteriologists to Egypt. One of these scientists was the biologist Thomas Henry Huxley. In his annual address as president of the Royal Society of Medicine, looking back on the year 1883, Huxley made a public statement about the government’s handling of the Egyptian cholera epidemic. He told his audience:

It is certainly to be regretted that the opportunity of the outbreak of cholera in Egypt was not utilized for the purposes of scientific investigation into the cause of the epidemic. There are able, zealous, and courageous young pathologists in this country who would have been willing enough to undertake the labor and the risk; and it seems a pity that England should leave to Germany and to France an enterprise which requires no less daring than Arctic or African exploration but which, if successful, would be of a thousand times more value to mankind than the most complete knowledge of the barren ice wastes of the Pole or of the sweltering barbarism of the equator.¹²³

With his comparisons to exploration and his mention of Germany and France, Huxley evokes the same anxieties felt by British officials in Egypt. Although British officials were heavily influenced by their country’s history of sanitation, the arguments of scientists like Huxley indicate that a cultural aversion to contagion was less strong than the results of the interplay between economic interests and imperial anxieties. What happens when protection of one of a country’s most important trade routes comes up against the preservation of an image of modernity? In the case of the 1883 cholera epidemic in Egypt, Britain put its trade first, then worked backwards from its support of local-origin theory to make its conclusions seem objective and progressive.

¹²³ Thomas Henry Huxley, “Presidential Address to the Royal Society,” in Nature (December 1883), <http://aleph0.clarku.edu/huxley/UnColl/Nature/RS83.html>.

In examining Britain's actions when faced with a crisis, the country's true priorities emerge. Britain was just as concerned with the appearance of modernity and colonial power as France and Germany. All three were engaged in the same imperial competition. But Britain's interests were unique: officials were less concerned about a domestic cholera epidemic and more concerned with protecting trade. This made British policy unique. However, Britain's unquestioned economic and imperial dominance had eroded, and it was not in a position to ignore the race to claim progress and modernity for one's own country. Therefore, Britain engaged France and Germany in the scientific debate, but did so on its own terms – discussing hygiene, miasma and everything that would point away from the idea that cholera arrived through the canal on British ships. Through it all, Britain would maintain that its ideas were the height of scientific sophistication and modernity, in order to maintain its image as an enlightened imperial power.

Today, science is no longer the “new religion” for most people, but when it comes to environmental issues like global warming, skepticism at the scientific level is often a more politically acceptable argument than making an appeal to the economic difficulties that would come with certain policies. As in 1883, both sides of the global warming debate attribute sordid motives to the other, accusing their opponents of derailing the scientific process. In a 2006 editorial entitled “Climate of Fear,” physicist Richard Lindzen, like the British in 1883, ties panic-fostering and bias to global warming “alarmists”: “Alarm rather than genuine scientific curiosity, it appears, is essential to maintaining funding. And only the most senior scientists today can stand up against this alarmist gale.”¹²⁴ He argues that the desire for funding and

¹²⁴ Richard Lindzen, “Climate of Fear: Global warming alarmists intimidate dissenting scientists into silence,” *Wall Street Journal*, 12 April 2006, <http://www.opinionjournal.com/extra/?id=110008220>.

political attention drives scientists who advocate drastic action to address global warming, without admitting the obvious economic advantages to remaining skeptical. Similarly, some have denounced all global warming skeptics as stooges of big business.

Both sides want to claim the moral high ground of disinterested objectivity, even in the midst of an issue with hugely significant economic implications. Like cholera, global warming will affect poorer countries most, but responsibility for the most important policymaking rests with the richer nations, especially the US. As the world's only superpower, the US, like Britain in 1883, is in a difficult situation due to its economic dominance. For many Americans, preserving our standard of living and the health of the economy is as important as addressing global warming. But some foreign onlookers have little patience for American reluctance to act.

During the years when a scientific consensus is growing but has not yet become orthodoxy in the public sphere – such as germ theory in 1883 or climate change in 2007 – the opportunity exists for the exploitation of claims to skepticism. Such arguments are often presented as pure, disinterested science, giving the public a false impression of the state of the scientific debate. In the midst of a debate that fosters accusation and defensiveness, it is often difficult to comprehend that, just as in 1883, no one side has a monopoly on objectivity and truth.

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