

## The Role of Contagion Theory in Creating Colonial Resistance

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Public health was an important part of the colonization project. Public health projects served both to justify colonialism as a source of superior western medicine as well as a way to protect the colonizers from disease. However, while colonial medicine sought to improve health and right disease, it wasn't well received, by native people who often viewed Western medicine as intrusive. These public health projects weren't accepted by the colonized without conflict, because they required that the colonized people adopt a European mindset of disease and accept European intrusion into their space and even their bodies,

At the start of colonization, around the start of the 16<sup>th</sup> century, Europeans continued to believe the classical Greek notion that miasmas, toxic gases produced by rotting organic matter, caused disease. Then, between the 18<sup>th</sup> and 20<sup>th</sup> centuries Europeans slowly transitioned to contagion theory, the idea that diseases could be transmitted from one person to another. The transition from miasma theory to contagion theory, while not smooth and sudden, was instrumental in increasing native resistance to colonialism, because it targeted the body. Whereas miasma theory entailed focus on environment, germ theory required sanitizing not just the environment but the bodies of colonial subjects. Because efforts under this paradigm were forced to focus on the body as the source of disease, they led to the increased state intrusion into the lives of colonial subjects. Several disease eradication efforts that led to increased state intrusion on the body included 19<sup>th</sup> century campaigns to eradicate smallpox and plague in 19<sup>th</sup> century India, and venereal disease in early 20<sup>th</sup> century Puerto Rico. These public health projects led to unprecedented state intrusion in the lives of colonial subjects and inadvertently inspired colonial protest.

One of the first diseases that led to sweeping changes in the role of the state in the private lives of the colonized was venereal disease. One of the first acts that attempted to control the spread of venereal disease was the Contagious Disease Acts. These acts required that prostitutes working close to military installations to be inspected for venereal disease on a weekly basis. Those who failed the invasive inspection were put into what were called "lock" hospitals (hospitals which quarantined women and subjected them to painful treatments) until they were seen as cured<sup>2</sup>. The enforcement of this act demonstrates that in the imperial context, public health was focused on the needs of the colonizer not the colonized. Even though the soldiers could give venereal disease to the prostitutes, it was the prostitutes- not the soldiers- who were forced to undergo inspection and treatment for venereal disease. According to David Arnold, an expert of medicine in British India, the Contagious Disease Acts were repealed because: "This was an area in which state medicine ... found itself both powerless to devise effective measures of control and in danger of provoking public outcry"<sup>3</sup>. The repeal of the Contagious Disease Acts reveals that colonial officials were aware of the potential invasive public health policy could have in creating resistance to colonial rule.

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<sup>1</sup> The author, being also an editor, recused himself from the editing process regarding this article. It received no special treatment and was required to conform to all standard requirements.

<sup>2</sup> Laura Briggs. *Reproducing Empire: Race, Sex Science and U.S. Imperialism in Puerto Rico* (Berkeley, University of California Press 2002) 23.

<sup>3</sup> David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India* (Berkeley University of California Press 1993) 86.

The Contagious Disease Acts also inspired similar policies in Puerto Rico. In 1918, after the U.S. had already granted Puerto Ricans citizenship, hundreds of Puerto Rican women suspected of being prostitutes were incarcerated and given intensive and painful treatments for gonorrhea and syphilis<sup>4</sup>. So many women were incarcerated that the Attorney General had to feed the women with less than sixteen cents a day in order to keep the project sustainable<sup>5</sup>. These actions also provoked protest from the Puerto Ricans. The most dramatic example of resistance was from the women themselves. Three hundred women rioted. There was also a strong political movement from the islanders that included newspaper articles, local political activism and even a group sent to the capital to demand the release of the women<sup>6</sup>. This demonstrates how a public health policy that was ostensibly designed to improve the health of Puerto Ricans caused social conflict and discontent among the very people it was theoretically protecting. By intruding into the private lives of Puerto Ricans, the U.S. inadvertently produced a strong resistance movement.

Venereal diseases weren't the only diseases that colonizers tried to control. The eradication campaigns for other diseases could also be rendered ineffective by the resistance that they created and a prime example of this effect is the attempt to eradicate smallpox in India. Smallpox in India is unusual because it had a strong religious connotation; according to David Arnold, "smallpox was identified with a goddess known generally as Sitala"<sup>7</sup>. The relationship between the disease and the goddess posed difficulties for secular authorities who attempted to import the "superior" method of smallpox control, vaccination, to replace the traditional method of inoculation. Indian inoculation was viewed as a religious ritual performed by several different castes of the Sutra class.<sup>8</sup> In comparison to the traditional ways of treating smallpox, vaccination violated several religious taboos. In the early days of vaccination, fluid containing cowpox was transferred from one person to another. This was viewed as polluting especially because the donors were often of the lowest castes and the higher castes feared pollution by the lower castes<sup>9</sup>. New improved methods of vaccination also provoked problems with the religious beliefs of Indians as well because they were made from calf's blood, and cows are a sacred animal in Hinduism.<sup>10</sup> These objections bred hostility, which often manifested itself in the form of rumors. These rumors were generally tied to conspiracy theories about British attempts to dominate India. According to Arnold: "Vaccination was construed as a site of conflict between a malevolent British intent and something Indian"<sup>11</sup>. Indians also expressed resistance by refusing to get vaccinated. In this case, the cultural differences between the colonizer and colonized increased the resistance to public health measures the colonizer implemented.

Like smallpox eradication efforts, efforts to eradicate the plague in British India also encountered fierce resistance. The efforts to eradicate the plague also reveal that the transition from a miasmatic perspective of disease origin to a contagion perspective was not smooth but varied from doctor to doctor, resulting in conflicting policies. The old guard continued to focus on the environment as the cause of the plague, which resulted in policies that focused on cleansing, like the expensive program in Bombay which tried to clean every gutter in the city with disinfectant. As Arnold said about Bombay during the plague: "the municipality embarked

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<sup>4</sup>Briggs, 48.

<sup>5</sup>Ibid., 51.

<sup>6</sup>Ibid., 49-55.

<sup>7</sup>Arnold, 121.

<sup>8</sup>Ibid., 122.

<sup>9</sup>Ibid., 142.

<sup>10</sup>Ibid., 142.

<sup>11</sup>Ibid., 144.

on a massive, almost comically thorough, campaign of urban cleansing ... spending more than Rs 100,000 on disinfectant alone by the end of March 1897”<sup>12</sup>. The fact that a municipal government spent so much on disinfection during a plague indicates that they believed in an environmental origin of disease. This policy also faced little resistance, showing the environmental based policies were less provocative than contagionist projects . The younger more avant-garde doctors held contagionist beliefs and thus focused on the people as the source of the plague. This led to invasive quarantine policies. An example of these policies was the intrusive inspection of train passengers. Since the signs of infection happened in the groin, the inspections were viewed as a breach of personal privacy or worse. As Arnold writes: “Because most doctors were male... their touch was considered polluting or, worse, as tantamount to sexual molestation”<sup>13</sup>. This policy was bound to provoke unrest, but it was an even more explosive when linked with another policy. Those suspected of plague were forced to go to plague hospitals to be quarantined, this led to resistance because of the view that hospitals were polluting, especially because the upper castes were forced to mix with the lower castes. According to Arnold: “The hospital was to many Indians (not least to the higher castes) a place of pollution”<sup>14</sup>. Normally the upper castes would avoid hospitals at all costs because of the possibility of contamination. The British soon recognized the “impossibility of fighting both the plague and the people.”<sup>15</sup> The only way the British were able to implement the quarantine policy was to allow concessions to the local population. For example the “residents of spacious house were allowed to use their upper stories and roofs as ‘plague hospitals’”<sup>16</sup> thus demonstrating that the British had to adjust their health policies to adapt to local sensibilities. The difference in policy effects can clearly be seen through efforts to contain the plague. The doctors who focused on miasma convinced the city of Bombay to cleanse its streets, which provoked little resistance, while the efforts to stop the plague via quarantine provoked far more native resistance.

As part of public health policy, colonizers shifted from miasma theory to contagion theory. As seen by the example of venereal diseases, this could lead to local resistance due to increased state intervention on the bodies of the colonized. As seen in the smallpox eradication efforts contagion theory could lead to policies that were also religiously offensive, leading to resistance as well. The plague also provided a study of how a combination of both of those factors led to such resistance that the colonizer had to change its policies, demonstrating the power of local resistance in ending some of the more extremely culturally offensive policies. All of these facts lead to the conclusion that the transition from miasma to contagion theory as a source of disease sparked colonial resistance.

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<sup>12</sup> Arnold, 204.

<sup>13</sup> Ibid., 214.

<sup>14</sup> Ibid., 213.

<sup>15</sup> Ibid., 231.

<sup>16</sup> Ibid., 236.

### Works Cited

Arnold, David, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India* Berkeley University of California Press 1993

Briggs, Laura; *Reproducing Empire: Race, Sex Science and U.S. Imperialism in Puerto Rico* Berkeley, University of California Press 2002