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### Smallpox Inoculation and Race Relations in Eighteenth and Nineteenth Century America

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Smallpox Inoculation and Race Relations in Eighteenth and Nineteenth Century America

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THE HONORS COLLEGE

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EASTERN ILLINOIS UNIVERSITY

**UNDERGRADUATE THESIS**

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## **Smallpox Inoculation and Race Relations in Eighteenth-and Nineteenth-Century America**

In the eighteenth and nineteenth centuries, smallpox raged through countries wiping out or scarring large numbers of people regardless of class, gender, or race. The virus was communicable only by person-to-person contact, which created tense situations between people of all statures and walks of life. Entire cities lived in constant fear of the virus, and when people tried to flee, oftentimes they would spread the disease throughout the countryside because they carried it and were unknowingly in the incubation period before the symptoms of the virus had broken out on their body. Because of these factors, the discourse regarding smallpox itself is extensive and ranges from eighteenth century scholars and physicians who discuss the communicability of the disease to present-day researchers who have studied the effects smallpox had on various communities. Other contemporary writers like Cynthia Davis, Martin Pernick, and Sara Gronim<sup>1</sup> have used smallpox and inoculation as a medium to discuss contagion, disease, and inoculation as they relate to and depict human perceptions and language itself. While all of these approaches provide a valuable part of the discussion on the human condition and smallpox as disease, I have found that the race relations inherent in the struggle to accurately portray life amidst smallpox and inoculation present a plethora of tensions between Native Americans, African Americans, and European Americans. These tensions stem from fear of smallpox and inoculation as well as a crucial need to share information. In the following pages I explore some of the history of the smallpox virus and inoculation as told by original documents in order to illuminate my points regarding race relations and how they shifted during this period of unrest in the eighteenth and early nineteenth century. I also use recent articles and essays that

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<sup>1</sup> Cynthia Davis' "Contagion as Metaphor" (2002), Martin Pernick's "Contagion and Culture" (2002), and Sara Gronim's "Imagining Inoculation: Smallpox, the Body, and Social Relations of Healing in the 18<sup>th</sup> century" (2006).

discuss disease and inoculation as metaphor to support my claims about the effect the act of inoculation had on its patients and on their communities.

### **Smallpox as Disease: History and Beliefs**

Smallpox has two basic categories into which it is separated: *Variola Major* and *Variola Minor*. According to Daniel Levy from PubMed, a sector of the U.S. National Library of Medicine, variola major is now classified as a serious illness that can lead to death if not vaccinated for, whereas variola minor is a much milder form of the original disease that rarely causes death. In the eighteenth and mid-nineteenth century, there was no distinction or knowledge that there were two different forms of Variola. Smallpox was perceived in one way: as a part of the human condition that attacked people in different ways, and the symptoms were terrifying. In “Imagining Inoculation,” Sara Gronim vividly describes the morbid reality of living with smallpox:

The pox made it excruciatingly painful to swallow, and pox-covered flesh stank like rotting meat. In the worst cases, people died before the pox even erupted, their bodies turning purple from blood vessels rupturing beneath the skin—or they suffered for weeks before dying, the eruptions of pox so massive that they all ran together, layers of skin peeling from the body.<sup>2</sup>

New Yorkers and Europeans alike “conceptualized their bodies as consisting of sacks of fluid whose movement, consistency, and balance determined the health of the person.”<sup>3</sup> In conjunction with this idea of fluids, people believed that there were different types of people, or different “constitutions,” which in turn led to many essays and articles regarding the effects of

<sup>2</sup> Sara Stidstone Gronim, “Imagining Inoculation: Smallpox, the Body, and Social Relations of Healing in the 18<sup>th</sup> c.” *Bulletin of the History of Medicine* 80.2 (Summer 2006): 248.

<sup>3</sup> Gronim, 261.

smallpox on these various “constitutions” in an attempt to explain the disease and why it affected some people more severely than others. One such treatise was composed in 1767 by Daniel Shultz, M.D.; he asserts that people with “hot” constitutions (dark hair and eyes) will become “full of pustules” whereas people with “light” constitutions have thinner blood and will therefore have fewer pustules. These explanations regarding smallpox helped rationalize a terrifying disease. Gronim argues that smallpox eventually became an internalized virus after the introduction of inoculation when people “reconceptualiz[ed] smallpox as innate [thus] altering its providential meaning, translocating that meaning from the disease onto inoculation itself.”<sup>4</sup> This alternative idea (which began much earlier than Shultz’s treatise in 1767)—that smallpox was a disease inside of each person, like a seed waiting for the trigger to grow—made future arguments in support of inoculation possible by creating a terrain where people like John Williams<sup>5</sup>, William Dodd<sup>6</sup> and other proponents of inoculation could argue against opposing religious points of view, which I will explore later in the paper.

Smallpox itself is a parasitic disease, relying on hosts to spread and a plethora of awaiting victims to prey on. The disease can be transmitted only by people, having no animal vector to aid its spread, so large cities and communities were crucial for the virus’ perpetuation. In a comprehensive guide to the world of smallpox in America throughout its various pestilential periods, Elizabeth Fenn posits in *Pox Americana* (2001) that the communicability<sup>7</sup> of the virus

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<sup>4</sup> Gronim, 263.

<sup>5</sup> John Williams. “Several Arguments Proving that Inoculating the Small Pox Is not contained in the *Law of Physick*, either *Natural* or *Divine*, and therefore *Unlawful*,” 2<sup>nd</sup> ed. Boston, MA: 1721.

<sup>6</sup> William Dodd. “The Practice of Inoculation Recommended in a Sermon. Preached at St. James’s, Westminster. April the 9<sup>th</sup>. 1767, on the Anniversary Meeting of the Governors of the Small-Pox Hospitals.” London, England: 1767.

<sup>7</sup> In “Contagion and Culture,” Martin Pernick examines the linguistic background of words such as “communicable” and “contagious” in relation to their usage in the eighteenth and nineteenth centuries compared to their current meaning. Since 1910, the United States public health handbook has used “communicable” in place of “contagious” because “contagion” as a term is outdated and falls under the umbrella term of “communicable.” “Contagious” is

had “no respect for boundaries of race, class, or nationality,” passing from city to country and upper to lower class as easily as dandelion seeds propagate in an open field.<sup>8</sup> The rapidity with which smallpox spread was partially due to the process of transmission and partially due to human fear when unknowingly infected people tried to escape the virus by migrating into other parts of the country. Understanding the process of contracting and circulating the smallpox is only possible by viewing the stages of symptoms infected carriers undergo.

Fenn understands the importance of a thorough understanding of the stages of smallpox and, within the first chapter of *Pox Americana*, elaborates on what exactly happens to a smallpox victim after contracting the disease. The first eleven days after contracting the virus the carrier does not have any symptoms and is not contagious, but from the fourteenth day to the thirtieth (until the scabs disappear, not necessarily until death), the disease can still be spread. As seen in the Revolutionary War, pus from smallpox scabs would get on the blankets and clothes of soldiers, and if those items were taken by the opposing army, the victors would contract the smallpox from their plunder.<sup>9</sup> The first physical symptoms of smallpox arrive on the twelfth day and include basic flu symptoms such as a fever, backache, headache, and nausea, which quickly escalate into a rash that gets progressively worse from the fifteenth to the thirtieth day until the rash morphs into fluid-filled pustules and scabs, which eventually begin to scar by the thirty-first day.<sup>10</sup> In *Smallpox and the Literary Imagination* (2007), David E. Shuttleton focuses on how smallpox functioned within its literary realm, but he also gives a brief overview of facts about the disease. When all the scabs are gone and scars have replaced them, or after decomposition of

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often able to refer to interpersonal transmission of ideas and feelings such as sin, grief, foreign influence, enthusiasm, etc whereas “communicable” has a medical meaning and connotations (892).

<sup>8</sup> Elizabeth Fenn, *Pox Americana*. (New York: Hill and Wang, 2001): 3.

<sup>9</sup> Fenn, 68-88.

<sup>10</sup> Fenn, 19.

the body, the patient is no longer contagious.<sup>11</sup> Death would normally occur in the ten to sixteen day period after contraction and if the afflicted person survived (s)he would begin to get better. Fenn elucidates that the severity of the pustules and scarring varied, but it was almost impossible for the smallpox patient to avoid any scarring unless (s)he had an extremely light case of Variola Minor, which did not come about until the late nineteenth century (1890s) likely as a result of inoculation.<sup>12</sup> However, once someone acquired the smallpox, (s)he was immune from it for life. As aforementioned, physicians attempted to explain the variations in scarring and pustule count by placing people into groups or “constitutions,” but these groupings were not irrefutable.

### **History of Smallpox in America**

Smallpox originally came to the Americas through Hernán Cortés’s campaign against the Aztecs in 1519 and 1521, where a large part of his eventual victory was due to the natives’ contraction of various European viruses, smallpox being one of them. Surprisingly, smallpox did not significantly infect North America until around 1775; Fenn argues that there are four factors that made this period of pestilence overwhelming and worth studying:

first, this epidemic is certainly the first that is clearly identifiable. Second, although the smallpox scourge of 1775-82 coincided almost perfectly with the American Revolution and took many more American lives than the war with the British did, it remains almost entirely unknown and unacknowledged by scholars and laypeople alike. Third, unlike so many earlier outbreaks of contagion, this one is extensively documented in the historical record. And fourth, by directing our attention to events elsewhere on the continent in an era in which historians

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<sup>11</sup> David E. Shuttleton, *Smallpox and the Literary Imagination*, (New York: Cambridge University Press, 2007): 5.

<sup>12</sup> Fenn, 20.

have previously focused largely on the eastern seaboard, the plague highlights the geographic and demographic gaps in our historical canon.<sup>13</sup>

These factors change the study of smallpox in America compared to its study in Europe because of the differences in the people and the disease's communication between large and small communities. Fenn also studies the spread of smallpox through North America and what that says about the social connections and mobility of the population. Trading posts, wartime communication, horses, and the need for guns encouraged people to travel long distances for work and the Revolutionary War, which further spread the smallpox.

Some scholars speculate on the possibility of the British using an early form of germ warfare by purposefully spreading the smallpox throughout the colonies' troops via slaves who had joined the British army or were searching for acceptance and shelter with the British troops. In "The British, Slaves, and Smallpox in Revolutionary Virginia" (1999), Philip Ranlet examines the letters and documents of Revolutionary War generals and civilians to illuminate the smallpox situation. Ranlet specifically focuses on the British General Alexander Leslie who used smallpox to establish a "cordon around the British base," which would keep the colonists away.<sup>14</sup> Further, he argues that Leslie would take in slaves, submit them to the smallpox naturally, and then send them away to spread the distemper among the colonists. This germ warfare used slaves and other goods as the medium through which the majority would conquer the "others" by spreading smallpox, making minorities a resource instead of recognizing them as people. This method and others further shattered race relations because the white majority became afraid of slave culture and contagion, wanting to separate themselves from both. Shuttleton further comments on how fear itself was feared and many family members or friends of the diseased

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<sup>13</sup> Fenn, 9.

<sup>14</sup> Philip Ranlet. "The British, Slaves, and Smallpox in Revolutionary Virginia." *The Journal of Negro History* 84.3 (Summer 1999): 219.



would remove any mirrors from the vicinity of a smallpox patient because of the “widespread belief that fear could weaken one’s ability to fight the disease” and the patient would surely only be further traumatized after seeing his/her own disfigurement.<sup>15</sup>

This fear of the unknown led Americans to take two approaches to smallpox: forced quarantine by the government or optional, but not encouraged, flight from the distemper. One prime example of isolation was near Boston on an island deemed “Pest, or Smallpox, Island” that housed many smallpox patients and could be found right off the coast.<sup>16</sup> The population wanted to separate the foreign virus from themselves by quarantine and isolation: this method did not always work because of the people who had not received the rash but had become communicable. Others fled the cities, migrating into the country in hopes of escaping the plague’s reach, which often further spread the disease. Death rates ranged throughout the colonies, spiking as smallpox hit city after city. After extensive research, estimates upwards of 130,000 have been produced as the total death rate due to smallpox in America during the 1775-82 epidemic alone.<sup>17</sup> Quarantine and flight copy the approach taken by Daniel Defoe’s characters and government in his famous novel *A Journal of the Plague Year*,<sup>18</sup> which semi-fictionally documents the stories, facts, and experiences one man compiles during the Great Plague of London. This similar approach taken by a poxed society demonstrates the inevitability of reverting back to what is known and familiar, which further upholds the population’s fear of the unknown, later negatively affecting methods such as inoculation.

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<sup>15</sup> Shuttleton, 29.

<sup>16</sup> Fenn, 30.

<sup>17</sup> Fenn, 274.

<sup>18</sup> Daniel Defoe, *A Journal of the Plague Year*. London: Penguin, 1722.

## Smallpox Inoculation: Perceptions and Practices

Inoculation did not become a tried practice in America until 1721 when Cotton Mather, an eminent clergyman who studied horticulture among other medical pursuits, began to suggest inoculation to the attending physicians of Boston. Mather had discussed ideas of inoculation with his slave, who had seen the method practiced in Africa, and in “Several Reasons Proving that Inoculation or Transplanting the *Small Pox*, is a Lawful Practice, and that it has been Blessed by GOD for the Saving of many a Life,” Mather himself mentions that “we [Bostononians] have an Army of Africans among our selves, who have themselves been under it [inoculation], and given us all the Assurance, which a Rational Mind can desire, that it has long been used with the like Success in Africa.”<sup>19</sup> According to an essay in 1795 by Dr. Jurin, a proponent of inoculation in London, Mather had “read in the Philosophical Transactions, an account of the method of inoculation in Turkey, with the universal success that attended it” and because of Mather’s insistence and perseverance, Dr. Boylston of Boston ventured to attempt inoculating his own child and “a negro servant, with no other information than what he derived from a letter written by a physician at Constantinople, describing the practice among the Turks and Greeks. Both his patients did well.”<sup>20</sup> After Boylston’s initial attempts at inoculation, more people began going to him to get inoculated and after a few months he had already inoculated more than 300 people, of whom only four or five died. Physicians in Great Britain began to attempt inoculation a few months after the first attempts in America, producing similar results.

Even in the beginning, inoculation produced great results with only six percent of the inoculees dying compared to the thirty to forty percent chance of death with confluent smallpox

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<sup>19</sup> Cotton Mather. “Several Reasons Proving that Inoculation or Transplanting the *Small Pox*, is a Lawful Practice, and that it has been Blessed by GOD for the Saving of many a Life.” (Boston, MA: 1721): 2.

<sup>20</sup> James Jurin. “A remarkable instance of the Infection of the Small-pox.” *The Rural Magazine; or Vermont Repository* Apr. 1795.

or Variola Major; however, even though the scarring was less defined and death less prevalent with inoculation, many people were wary of this new method. After all, inoculation was “to approach an abyss of death or disfigurement<sup>21</sup>” as many people saw it, because they were purposefully infecting themselves with the smallpox virus, which naturally had connotations and images from personal experiences related to death or defacement. Initially, and even into the twentieth century, physicians could not understand why or how inoculation had better results than natural contraction; they simply knew that it did. In 1721, Dr. Benjamin Colman of Boston wrote an article praising the wonderful art of inoculation and shares his stories of infected patients and the passing between sick chambers of the naturally infected to the inoculated; he illustrates it “as the passing out of darkness into light, or from a tempestuous Sea into a Calm Haven, or from a place of horror, into a Garden of pleasure.”<sup>22</sup> The actual figures given for natural smallpox patients and inoculees range from Jurin’s 1725 account of 16,010 naturally infected patients and 2,650 dead out of that figure, and then he gives another account of 40 people who were inoculated and only one of them died.<sup>23</sup> However, skeptics like Isaac Massey, an apothecary, point out flaws in Jurin’s account. Massey wrote an essay in 1727 arguing that Jurin did not distinguish between the number of people who received smallpox naturally and were simultaneously healthy or emaciated (therefore much more likely to die), which would slant the results of his account.<sup>24</sup>

The process of inoculation was not a standardized procedure until the proven Suttonian Method came about around 1767, but before then, physicians attempted to “modernize” the

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<sup>21</sup> Gronim, 249.

<sup>22</sup> Benjamin Colman, “Some Observations on the New Method of Receiving the Small-Pox by Ingrafting or Inoculating.” (Boston, MA: 1721): 8.

<sup>23</sup> James Jurin, “An Account of the Success of Inoculating the Small Pox in Great Britain, for the Year 1724.” (London, England: 1725): 12, 15.

<sup>24</sup> Isaac Massey, “Remarks on Dr. Jurin’s Last Yearly Account of the Success of Inoculation.” (London, England: 1727): 4-5.

process with pre-inoculation procedures. Benjamin Colman thoroughly describes the basic procedure of inoculation after observing it many times: the physician makes a small incision in the arm or leg, inserts the variolous matter (usually liquid pus from another smallpox patient's pustule) upon a small piece of lint into the cut, and then after twenty-four hours the doctor begins to put on a dressing of cabbage leaf from day to day, changing the dressing regularly.<sup>25</sup> This particular manner was not used by everyone as some physicians would make multiple incisions and insert more variolous matter than others.

Physicians did not accept the basic Turkish (or African) way of inoculating for long because the outrageous realization that "savage" or "backwards" societies could have discovered the best way to inoculate was unfathomable. In an attempt to improve and understand the process of inoculation and how it worked, physicians began experimenting with different pre-inoculation exercises and procedures. As Gronim argues, doctors "conceptualized most illnesses as derangements of the body as a whole"<sup>26</sup> so they would bleed the patient or make him/her fast to re-set the body before the transfer of inoculous matter into the patient. After all, "the importance of the practice of preparation lay not in efficacy but in stripping inoculation of its strangeness."<sup>27</sup> In an attempt to familiarize people, particularly parents and guardians, with the concept of inoculation, a pamphlet called "A Serious Address to the Public Concerning the most probable Means of avoiding the Dangers of Inoculation" was circulated in 1758 and stated that bleeding "is more difficult, and important than the Operation"<sup>28</sup> of inoculation itself. The pamphlet further warns parents about poor physicians and surgeons, encouraging them to choose

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<sup>25</sup> Colman, 6.

<sup>26</sup> Gronim, 255.

<sup>27</sup> Gronim, 258.

<sup>28</sup> "Serious Address to the Public Concerning the Most Probable Means of Avoiding the Dangers of Inoculation. A." (London, England: 1758): 11.

how they like as “whatever is known to be prejudicial may be shunned”<sup>29</sup> in an effort to look out for one’s own safety. These attitudes towards pre-inoculation measures spanned across London and American psyches encouraging a reversion to widely held beliefs that were made based on preconceptions or “prejudices.”

In the 1750s, Daniel Sutton changed the face of inoculation with his Suttonian Method, which essentially mimicked previous inoculation techniques, but minimized costs by significantly reducing the pre-inoculation procedures, making shallower incisions, and using matter from milder cases of inoculees’ smallpox pustules. This procedure took less time, was less expensive, and Sutton’s six sons spread throughout Europe to spread the news, making Sutton’s ideas and methods accessible to everyone because of the reduced cost. Writers sang the praises of Daniel Sutton in multiple poems, highlighting how he changed the disease-ridden lower class’s quality of life through his cheaper method. In 1767, T. Baker addresses Dr. Sutton in a short poem, praising Sutton’s “art” and all that it has done for the world:

Thousands confess thy great unrivall’d Art,  
 Admire and love Thee from a grateful Heart. [...]  
 Long may thy prosp’rous Sons thy Method trace,  
 And Num’rous blessings crown thy future Race.<sup>30</sup>

Around the same period Baker wrote this poem, Henry Jones composed an epic ode to Daniel Sutton called “Inoculation; or Beauty’s Triumph.” Jones’s poem gives examples of people’s lives changed by the Suttonian Method, but he begins the poem by demonstrating Sutton confronting Death in a powerful and poignant moment, forever changing the face of the world with this action:

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<sup>29</sup> “Serious.” 24.

<sup>30</sup> T. Baker. “A Poem Addressed to Mr. Sutton on Inoculation.” (Ipswich, England: 1767): 36.

STOP Tyrant, Sutton said, and seiz'd the Arm  
 Of Death; --this mortal Plague foreign, thy dread  
 Auxiliar long, whose pestilential Breath  
 Laid waste the Nations wide, unpeopled Earth  
 With hideous Blast, and counter-work'd the Heavens.<sup>31</sup>

While the response to Sutton in these poems is positive, many skeptics of inoculation found fault with Sutton for his work and placed him on trial in 1767 because some areas in London and the Americas had banned inoculation for fear of voluntarily spreading the smallpox among other reasons. News and pamphlets of the trial spread all over London, eventually treating multiple facets of societal issues such as defending the labor class, who had benefited the most from the Suttonian Method. In the end, Daniel Sutton was found not guilty<sup>32</sup> and his “inoculation wagons” continued traveling throughout the country, cheaply inoculating people in the towns at which they stopped. Sutton’s method likely affected minorities in America as it improved inoculation and made it cheaper for slave owners to inoculate their slaves.

Inoculation’s history in America differs slightly from Europe’s experience, progressing slowly then quickly being reeled back in as if Americans could not decide whether to keep the method or throw it back to where it originated because of its doubtful origins and unfathomable efficacy. Not until the late 1700s did inoculation become an accepted practice without punishment. In August of 1792, the *Massachusetts Magazine*’s section of the *Domestick Chronicle* reported that “the town of Boston, has decided in favour of a general innoculation for the small pox. It is supposed that there are from 8 to 10,000 to receive the distemper” and

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<sup>31</sup> Henry Jones. “Inoculation: or Beauty’s Triumph: a Poem in Two Cantos.” (Bath, England): 3

<sup>32</sup> “Tryal of Mr. Daniel Sutton for the High Crime of Preserving the Lives of His Majesty’s Leige Subjects, by Means of Inoculation. The.” London: 1767.

“several of the adjacent towns have also voted for a general inoculation.”<sup>33</sup> This decision marked a turning point in inoculation’s history as it became mandatory and no longer haunted the periphery of the public sphere. Many factors likely encouraged lawmakers to implement inoculation including the increasing comfort with the procedure thanks to Daniel Sutton and the fear of further pestilential deaths.

While inoculation seems like common sense in the twenty-first century, many clergymen and physicians alike opposed the idea of inoculation and used a variety of arguments to stop the spread of this method. Inoculation itself represented foreign ideas/origins and among them, intentionally infecting an individual with the smallpox held no rational value. In a letter to a gentleman in the country, Grainger mentions that many physicians’ pro-inoculation ideas have been discounted “and rejected perhaps by some, for no other reason, but because not agreeable to the *New Scheme* of those *judicious* people call’d *Africans*.”<sup>34</sup> This short passage lightly demonstrates the great prejudice that faced inoculation simply because of its source. On the other hand, clerical arguments tended to focus more on the entire church population, inserting a heavy dose of guilt for whoever supported or practiced inoculation. Many clerical essays opposing inoculation include the commandment to “Love thy neighbor as thyself” and proceed to argue that inoculation spreads the smallpox and will not help anything because infecting others more than is necessary will only bring about more destruction and plague. Inoculees were, in fact, still contagious after they were inoculated because they had still received the smallpox; however, their symptoms were more bearable and their strain of smallpox more manageable than a naturally infected person’s case. Some clergy also argued that smallpox was God’s will, or judgment, and people should accept their burdens and pray for healing instead of

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<sup>33</sup> “Domestick Chronicle.” *The Massachusetts Magazine; or Monthly Museum*. (Boston, MA: Aug. 1792): 532.

<sup>34</sup> Gronim, 30.

relying on modern medicine. Many scholars refuted these arguments from religious and medical standpoints, but the tension between the two sides was great because the subject of their discussion was still very foreign.

### **Inoculation and Smallpox as Metaphor**

In order to normalize the concept of inoculation, oftentimes scholars and writers would use metaphors to attach meanings to inoculation and smallpox, therefore making it less alien. While this occurs quite often as a method to familiarize people with a concept, contemporary scholars argue whether these metaphorical attachments help or hurt the population in their conceptualization of a disease. By understanding the debate on metaphors and the importance of their meaning with regards to disease, we can begin to see how metaphor functions in smallpox and inoculation literature and how that further affects race relations in eighteenth and nineteenth century America.

In *Illness as Metaphor*, Susan Sontag posits that “where illness is concerned, words wound us most when they are most elusive. The more mysterious the disease seems, the more likely we are to place meaning and greater fear of moral—if not literal—contagion.”<sup>35</sup> She argues that the metaphorical meaning attached to illness blames someone, or even the infected, for the illness rather than accepting the illness as its own entity, therefore insinuating that the infected person did something to deserve the sickness. She further ironically states that “the way we imagine disease is diseased” and that “we must resist the seductions of metaphor” as they exacerbate the problematic conceptualization of the disease itself.<sup>36</sup> In response to Sontag’s ideas, Cynthia Davis wrote “Contagion as Metaphor” and stated that the entire purpose of any

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<sup>35</sup> Susan Sontag, *Illness as Metaphor: and, AIDS and Its Metaphors*. (New York: Anchor, 1990): 6.

<sup>36</sup> Sontag, 58.



literary endeavor is to confer meaning, not strip meaning away by disabling metaphors. Davis goes on to quote John Edgar Wildeman who considers language as a “form of inoculation” instead of a cure.<sup>37</sup>

During the smallpox plague in America and the following forays into inoculation, writers could not help but use inoculation and engrafting (synonymous terms during the eighteenth and nineteenth centuries when discussing smallpox) metaphorically to depict ideas of infection physically or mentally, one example being an 1886 ad for “compound oxygen” that promises to protect people from inoculation, intending to evoke ideas of immunity from infection. While the invented metaphors may have proved to be problematic with regards to Sontag’s argument that metaphor places blame on the afflicted rather than the illness, the metaphors depict a conceptual part of society, a mindset regarding foreign ideas and people, which is never explicitly stated. Indeed, John Edgar Wildeman’s belief that metaphor and language inoculate people to certain ideas through exposure to alternative concepts coincides with the social and linguistic attitude taken towards minorities in colonial America thanks to inoculation and the literature and metaphors surrounding it.

As previously mentioned, engrafting and inoculation were oftentimes used synonymously in medical discourse, connecting horticultural ideas to experiments with human physiognomy. The art of engrafting has been used since the renaissance period and consists of a person combining two plants to create a hybrid—almost like the beginning of genetically modified foods. Many horticulturists have written on the value of engrafting plants, noting that through this method “a thorn bush is converted into an Apple tree”<sup>38</sup> and becomes fruitful, transforming unruly and useless plants into hybridized, useful organisms. These essays also mention that

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<sup>37</sup> Cynthia J. Davis. “Contagion as Metaphor.” *American Literary History* 14.4 (Winter 2002): 829.

<sup>38</sup> “Hints on the benefits of Ingrafting Fruit Trees.” *The American Magazine; a Monthly Miscellany Devoted to Literature, Science, Etc.* May, 1816: 422.

many people shun or ignore the process of engrafting because it is foreign. To engraft a plant is to improve and to alter the original; many religious folk fear tampering with God's work and felt that it was not a person's place to change His creation. Raising the inevitable questions of who becomes God and why is God's creation not good enough. Other works on engrafting often mention foreign entities and their role in the improvement of the original stock. In 1785, a treatise on engrafting attempts to explain "how buds inserted in foreign stocks attain their growth,"<sup>39</sup> using medically-charged terms like "infect," "incision," and "inoculations" to describe the process. Medical terms used today like "transplantation" still retain horticultural linguistic backgrounds that stem from the seventeenth and eighteenth century ideas of the human body, which paralleled ideas of other living organisms like plants. Even the word "culture" stems from the Latin word for "to till," which likewise connects to the idea of a "cultivated" or open mind.<sup>40</sup>

In his article "Contagion and Culture," Martin Pernick argues that eighteenth century writers considered contagion to be a living organism, or at the very least to be "lifelike" in its qualities as a spreading and communicable disease, migrating from one person to the next.<sup>41</sup> This perception with regards to smallpox is further echoed by poets, specifically in a poem written in the late 1700s by Samuel Bowden who refers to the Variola virus as a living monster, an "unhappy swain" that "breath'd putrid death" and to inoculation as an artform sent from heaven to slay the beast. The ideas connecting plants and people and how to improve the two created an alternate level of language and terminology from which scholars could conceptualize and discuss smallpox to understand it better. The linguistic background and connotations of

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<sup>39</sup> "Article 1." *American Academy of Arts and Sciences* Boston, MA (Jan. 1785): A390.

<sup>40</sup> Martin S. Pernick, "Contagion and Culture." *American Literary History* 14.4 (Winter 2002): 862.

<sup>41</sup> Pernick, 861.

words like “engraft” and even “culture” set up the stage for metaphor to further embellish upon pre-existing concepts of the plague.

Writers used “engraft” as a term meaning “to plant,” whether literally when speaking the act itself or figuratively when someone plants an idea into another person’s head. Shakespeare used “engraft” in a few of his sonnets including “Sonnet 15” when he promises to “engraft [someone] new” even when decay and time wear the person away. In this example, “engrafting” is used to reverse the effects of Time, but in a later poem by Thomas Pringle called “An Emigrant’s Song,” the reader sees “engraft” used to implant hopes and feelings into another person that will ideally “bear fruit in the Skies”. The essential idea that engrafting indicates a change in thinking because of an outside source is crucial to understanding how inoculation functioned in perceptions of races and how people affected each other during the smallpox epidemic in America.

The metaphors connected to inoculation and engrafting were not always positive and oftentimes signaled a fall, yet still a shift, in previous thinking. One of these deviations includes the idea that inoculation had negative connections to reproduction. In rare cases smallpox would render some men sterile but the metaphors for inoculation take this fact further.<sup>42</sup> In a revealing text called “The Blessings of Plenty” published in 1744, the author describes inoculation:

‘Tis observable, that notwithstanding all the *Arts of Inoculation*, and quartering of Flowers and Fruits of the same Tribe upon each other, nothing has yet been produc’d but *vegetable Mules*, incapable of Propagation; and we find it impossible to peek in upon the Order and Number of the *Species*, fix’d by our Maker.

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<sup>42</sup> Gronim. 249.

A mule is the hybrid offspring of a male donkey and a female horse, used for carrying packs as they are very sturdy, but they are also sterile. The word “mulatto” (the offspring of a black and white person) comes from similar origins, hearkening back to the idea that mixing people will only create beings “incapable of Propagation.” This text brings to the surface some underlying concerns about mixing people of different races, or “kinds,” for fear of some detrimental end result, which is directly applicable to the fear of engrafting plants, that God made everything one way for a particular reason and did not intend for them to mix. Later in the early 1800s authors begin to use “engrafting” to refer to transferring personal or physical attributes to offspring. In an 1833 article titled “English and American Racehorses” regarding horse breeding farms and lineage, the author suggests “engrafting more durable strains” from other countries into the American horses to create stronger bloodlines and equine specimens.

Views regarding mixing different plants, horses, and eventually people slowly evolve as time passes, but the metaphors for inoculation do not stop here, they continue on to represent ideas of anti-slavery during and slightly before the American Civil War. In 1857, one pro-slavery writer referred to the Emancipation ticket being passed in St. Louis as an event that quickly “inoculate[d] the mass of the people [in Missouri] with the foul pestilence of Abolitionism.”<sup>43</sup> Here, inoculation is referred to as a medium through which the abolition movement can move and function while in another work a writer comments on a northern state’s intention to “*wink* at the slave trade, if they lack the courage to engraft it on their platform.”<sup>44</sup> In 1882, a writer from *The Christian Recorder* in Pennsylvania applies the term “inoculation” more directly and sarcastically when he mentions that he hopes the northern factories coming to the

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<sup>43</sup> “Emancipation in Missouri.” *The National Era* Washington, D.C. (July 1857).

<sup>44</sup> “Slave Trade. The,” *The National Era* Washington, D.C. (3 Feb. 1859).

southern states do not “inoculate [the southerners] with the accursed disease [of abolitionism].”<sup>45</sup> In these examples, the writers place slavery as in the “right” while inoculation and the abolition movement are depicted as “wrong” in their respective contexts; however, by looking at them through a contemporary lens, the connection between the two demonstrates a positive allusion to the use of inoculation metaphorically. Even in the twentieth century “inoculation” is used as a metaphor to describe the struggle against prejudices in contemporary literature.<sup>46</sup>

## Race Relations

Specifically targeting Native Americans and minorities in America, Fenn adeptly points out smallpox relations “squeezed the life from thousands of victims, it extinguished the accumulated wisdom of generations, leaving those who survived without the familiar markers by which they organized their worlds and leaving the generations that followed with a mere shell of their former heritage.”<sup>47</sup> While smallpox did wipe out entire generations of people and their culture with it, this erasure left a clean slate for new relationships and connections with others. Tension between Native Americans and the colonizers rose during and after the Revolutionary War as struggle for land ownership increased, as did the tension between northerners, slave owners, and African Americans during the Civil War. Smallpox inoculation further increased and yet relieved these tensions as it gave a metaphorical medium through which people could explore their preoccupations with “foreign” entities, whether they were literal such as the Variola virus itself or relational such as inter-racial relationships. As I elaborated earlier, the literal idea behind inoculation included inserting a foreign idea (that originated in third world, “savage”

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<sup>45</sup> “Within the past two years.” *The Christian Recorder* Philadelphia, PA (16 Nov. 1882).

<sup>46</sup> In a 1995 article discussing Zora Neale Hurston’s *Their Eyes Were Watching God*, Erik Curren elaborates on how “Hurston uses the gothic to inoculate black America against the infection of white prejudices” (20)

<sup>47</sup> Fenn, 258.

places like Turkey and Africa) and foreign material (someone else's viral pus) into oneself to create a physiological response that would eventually cause immunity from a potentially deadly disease. People could transpose this idea of inoculation to function within the conceptualization of race relations, as incorporating foreign ideas and people into their lives to create a hybrid, more stable person and community.

Fear constituted most of the tension between white people and other races. In *Smallpox and the Literary Imagination*, Shuttleton cites Barbara Stafford describing the physical climate of Europe during the eighteenth and nineteenth centuries as obsessed with the "aesthetic of immaculateness" that included pure white, flawless, marble-like skin, which demonstrated a "panicky and unstable response to the nauseating phantasmagoria of rotting, eruptive and squamous skin that constituted the actual bodyscape in the century"<sup>48</sup> according to Steven Connor. This blatant refusal to accept the actual physical landscape of the time demonstrates the fear of the white population to fall below the ideal. In a similar vein, when viewing "contagion's" etymology and uses, Pernick demonstrates the political ties the word has to place blame on outsiders and outcasts for any problems the majority may have, specifically targeting minorities and immigrants for the brunt of many issues. A void seems to exist between actual reality and what the white majority believed to be reality.

Even accounts of other country's endeavors with inoculation are biased and often depend upon the white writer's opinion for any sense of truth. In 1730, W. Dedi wrote "A Dissertation Concerning Inoculation of the Smallpox" and in the introduction he discusses the Circassians<sup>49</sup> role in selling children and women into the harems of Turkey and Persia. In order to guarantee these slaves' beauty and worth, they are inoculated and after the scarring their physical beauty is

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<sup>48</sup> Shuttleton, 2.

<sup>49</sup> Also known as the Adyghe people who originated from the Caucasus area (near Turkey, in Eurasia) and practice Sunni Islam.

assessed and determines their eventual “merchantability.”<sup>50</sup> Americans viewed this reason for inoculation negatively and connected the aims to the method, reflecting poorly on the procedure of inoculation and its origins. Even later into the mid-nineteenth century, missionaries tell stories from Africa that describe the “rituals of savages” (inoculation and preparatory procedures) and even go into detail about how the communities feared mandatory vaccination and would pay off the barber<sup>51</sup> who was essentially paid to inoculate people and further paid by the natives to not inoculate.<sup>52</sup> This example depicts emotions shared by both Americans and foreigners, as both feared willingly inserting a disease into themselves because it defied rational logic. On the other hand, it would be unfair to not include any contradictory essays that positively depict another country’s inoculation. In 1795, an American, Holwell, traveled to Bengal and documented the exact procedure they used for inoculation, positively commenting on their methods and how inoculation was a necessary and beneficial part of the Bramin’s culture.<sup>53</sup>

### *Native Americans*

Native Americans have had a difficult relationship with smallpox since its beginnings in America, and there are many different opinions as to why smallpox devastated this group of people so drastically.<sup>54</sup> In contrast to popular belief that Native Americans may have had weaker immune systems, which accounted for the higher rate at which they died from smallpox, in *Pox Americana*, Fenn presents one widely-held theory that Native Americans lacked genetic diversity

<sup>50</sup> W. Dedi, “A Dissertation Concerning Inoculation of the Small-Pox.” (Boston, MA: 1730): 2-3.

<sup>51</sup> Barber in this sense is similar to a physician. Barbers were well known for their use with scissors or sharp objects, usually playing an indispensable role in inoculation procedures because of their experience with incisions (similar to what we would now call a surgeon).

<sup>52</sup> “Missionary Trip Up the Nile, A.” *The Christian Recorder* Philadelphia, PA (12 Oct. 1861).

<sup>53</sup> “Holwell’s account of the East-India Manner of Inoculation.” *The Rural Magazine* Apr. 1795: 193.

<sup>54</sup> From the evaluation of multiple original accounts regarding the number of Native Americans who died after contracting smallpox naturally, Fenn estimates that roughly three of every four Native Americans who contracted the virus died whereas estimated deaths for Europeans stabilized at around one to two out of every ten people (23).

because of their small communities, and therefore, smallpox strains could mutate and become more deadly within the smaller gene pool.<sup>55</sup> These “repeated bouts of pestilence shattered native organization,” which inevitably brought different groups together (Europeans and Native Americans) creating homogeneity. Fenn documents multiple instances of this occurrence, specifically the relationships formed between different races at trading posts.<sup>56</sup> Because of the diminished population, Native Americans resorted to trading with Europeans to gain more supplies and also to obtain firearms and horses. The York Factory Trading Post facilitated these transactions, helping different societies form positive working relationships but at the same time, trading posts assisted the spread of smallpox because any materials that had been handled by a communicable smallpox patient could further spread the disease after a successful trade.<sup>57</sup>

With the colonization of America came certain expectations and mindsets brought about from both the Native Americans and the settlers. While Native Americans were likely terrified and confused by the visitors, the colonists took a very different approach to the relationship between land and foreigner, making their mission one of conversion. Instead of accepting the laws already established on American land, the colonists took it upon themselves to re-create an idealized version of their own culture in this new landscape. Davis states that even in the twenty-first century, Americans relationships with cultures such as Puerto Rico, Hawaii, and the Philippines are parasitic; “we feed and invigorate our own national and self-image by projecting onto the natives what we most dread as pollutants in ourselves— whether a tendency to excess and overspending or an opposing inclination to laziness—though usually with only qualified success.”<sup>58</sup> The ideal scenario for the colonizers is for the natives to incorporate themselves into

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<sup>55</sup> Fenn, 27.

<sup>56</sup> Fenn, 167.

<sup>57</sup> Fenn, 173.

<sup>58</sup> Davis, 832.



the colonizers' culture while still remaining outside of the circle just enough to show their "foreignness." The struggle between desire to change the existing culture while still keeping a distinct boundary between the colonizer and the colonized was further damaged by smallpox as the disease swept across all boundaries—physical or otherwise. Also, once inoculation became accepted, the colonizers wanted to inoculate Native Americans to help stop the pestilence, thus increasing the number of relationships between the two cultures; however, while mandatory inoculation may have seemed beneficial and even philanthropic to the colonizers, it further damaged Native Americans' perception of the colonizers as they were told to take the smallpox virus willingly by the same people who were taking their land. It is easy to see why minorities would be wary of this method and the people who were its proponents.

The first federal inoculation of an American Indian did not occur until 1797 when Chief Little Turtle succumbed to colonizers' insistence.<sup>59</sup> As I previously stated, mandatory inoculation, and even colonizing itself, was seen as a positive and even charitable act by the colonizers. An article on the Children's Page in *The American Missionary* titled "A Talk with an Indian Chief" (1884) further depicts colonizers' perception of how Native Americans must feel when, in this article, an obviously fictional chief tells white children that God, "our Father in Heaven, who made all and rules all [...] kept the smallpox from destroying you."<sup>60</sup> After speaking briefly about other things God has saved white children from such as bears and guns, he goes on to say that God will likely not forgive him because he used to worship false idols, and he hopes that someday his children will be like the white children with regards to their faith and manners; not like him who likes "eating with the knife at his mouth, and the food on the ground,

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<sup>59</sup> J. Diane Pearson. "Medical Diplomacy and the American Indian: Thomas Jefferson, the Lewis and Clark Expedition, and the Subsequent Effects on American Indian Health and Public Policy." *Wicazo Sa Review* 19.1 (Spring 2004): 105-130.

<sup>60</sup> C.L. Rev. Hall. "Children's Page: A Talk with an Indian Chief." *The American Missionary Volume* 9 (Sept. 1884): 283.

and dressing so much like an Indian.” This astonishingly stereotypical and ethnocentric piece gives insight into the colonizer’s perspective of the “other” or the “savage foreigner” and how beneficial the colonizers have been by implementing Christian methodology into Native Americans’ lives, yet the Native Americans will always have their cultural ties and backgrounds to separate them from the colonists.

In a Native American tale called “The Coming of Wasichu,” the Lakota Sioux portray their perception of white people’s colonization of America. The tale begins with a spiritual spape-shifting character called Iktome who has connections to the spirit world and is told that a new kind of man is coming (“Wasichu”), so Iktome takes his information to the various Indian tribes to warn them, shifting between his forms of a human and a spider intermittently. According to Iktome, the “new man” has “long legs [...] of knowledge [...] and greed” and while he is not wise, “he is very clever” and “wherever the legs step, they will make a track of lies, and wherever he looks, his looks will be all lies.”<sup>61</sup> This depiction of the white man demonstrates a fear of the unknown and an intuitive knowledge that he will bring lies. By the end of the story, the “weird man” appears “covered with an evil sickness, and this sickness jumped on the women’s skin like many unnumbered pustules and left them dying.”<sup>62</sup> Native Americans blamed smallpox on the white man, so when the colonists tried to impose mandatory inoculation it was as if they were bringing the disease all over again. For Native Americans, mandatory inoculation led to further distrust of colonists and “the system.”

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<sup>61</sup> Richard Erdoes and Alfonso Ortiz, *American Indian Myths and Legends* (New York: Pantheon, 1984) 492.

<sup>62</sup> Erdoes and Ortiz, 496.

### *African Americans*

Native Americans were not the only minority group in America to doubt inoculation because of fear of the majority's impositions; African Americans as well had good reason to doubt inoculation because oftentimes during the revolutionary war, the British would inoculate slaves and send them back to their homes to spread the smallpox as a form of germ warfare, and in other instances slave owners or traders would force their slaves to get inoculated<sup>63</sup> at reduced prices, which consequently meant reduced quality and care. However, as inoculation became more accepted and scholars incorporated it into literature, it was generally used in support of the abolitionist movement and to promote race relations.

The actual ads for slaveowners to inoculate African American slaves, or to buy ready-inoculated slaves, appeared all over America and Europe in various newspapers. In 1769, Henry Stevenson, an inoculator from Baltimore, ran an ad in the *Virginia Gazette* "promising that clients would be 'carefully and tenderly dealt with' and extending reduced prices to slaveowners seeking to have their black laborers immunized (cut-rate prices very likely meant cut-rate care.)"<sup>64</sup> Slaves' value rose drastically with their immunity to smallpox because after a slave had been through the disease, there was no longer a chance he/she would contract it and die. However, as Elizabeth Fenn points out, slaves were often inoculated at a cheaper cost, which meant worse conditions and less care throughout the process of inoculation, so it could be supposed that more slaves died from inoculation than white people who paid more. While there are no statistics available because no records exist to address this demographic specifically, it

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<sup>63</sup> In a presentation titled "The Politics of Vaccination in America," Robert Johnston explores vaccination's origins in inoculation to lead up to his more contemporary comparisons and views regarding the perceptions of vaccination. While discussing the tensions inoculation caused between minorities, Johnston briefly mentioned Frederick Douglass who opposed inoculation likely because of the majority's imposed mandatory inoculation of the minorities.

<sup>64</sup> Fenn, 40.

can be assumed that poor quality care likely included dirtier medical instruments and a higher occurrence of severe infection. Another ad from the seventeenth century explicitly states that a ship full of “250 fine healthy negroes” has anchored off the coast of Charleston and will not be coming into port because of fear of smallpox (because there was an outbreak in Charleston at that time) but at the bottom, the ad specifies that a “full one Half of the above Negroes have had the SMALL-POX in their own country.”<sup>65</sup> In a relatively small ad, this piece of information stands out and makes the “commodities” aboard more valuable.

Cotton Mather, the horticulturalist and clergyman I referenced in the beginning of the paper because of his influence on the incorporation of smallpox inoculation into Americans’ awareness, valued his slave more because of his experience with inoculation and knowledge of the method. While this appreciation was by no means the norm, this slave’s knowledge coupled with counter-intuitive third-world technique spurred the experimental practice of inoculation and saved thousands of lives in the process.

## Conclusion

Smallpox inoculation’s use metaphorically opened up discourse and ideas regarding race relations and how the population could actually improve by learning from those who were normally considered “third-world” or “savage.” Even the method of inoculation itself, taking a part of someone into oneself, improved the person and created a hybrid, immune being. As I have stated, obviously minorities did not always trust the act of inoculation itself as it was enforced by the “foreigners” and often occurred in poor conditions, but the metaphorical connotations of inoculation such as inoculating someone with the idea of abolitionism works

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<sup>65</sup> “Ref: Advertisement of a Cargo of Slaves aboard the Bance-Island. anchored off Charleston during a plague of smallpox.” 17<sup>th</sup> c. *ARTstor*.

conversely in support of the minority. While the history of smallpox and inoculation is disturbing, I believe the method and residual meanings of the word still hold relevance in contemporary literature and support racial relations throughout the world, but specifically and poignantly in America.

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