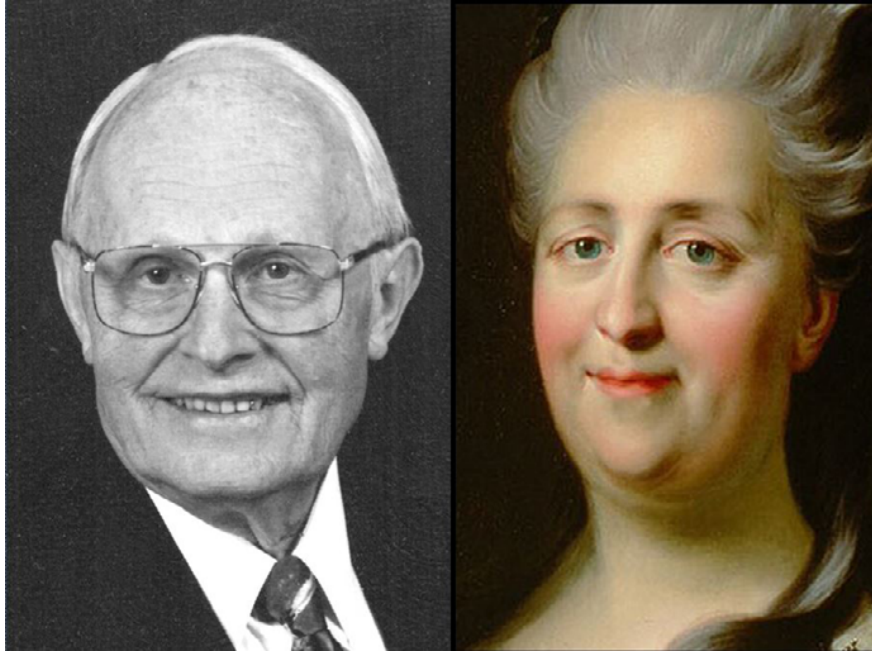


My Father and Catherine the Great Had One Thing in Common

by Kenneth Vogeles

[The author's father was Cleo Leo Vogeles. Cleo's parents were Christian and Fredericka Schumacher Vogeles.]

Dad was born in Lowry, SD in 1915 when smallpox was still a killer. My grandmother Fredericka knew he must be immunized to protect him against this deadly affliction. Doctors cost money so, being both practical and thrifty, she inoculated him herself. She visited a neighbor who had recently been vaccinated against smallpox, lanced the neighbor's vaccination scab with a needle, and scratched my dad's arm with the needle's pus-covered point. He developed a blistering scab of his own where he had been scratched. Success! He was thereafter immune to smallpox!



Caption: Cleo Leo Vogeles (Author's photo) and Catherine the Great (Cropped from A. Albertrandi after Rokotov, *Portrait of Catherine II* (1729-1796), 1780, oil on canvas, Wikimedia Commons, https://en.wikipedia.org/wiki/Catherine_the_Great#/media/File:Catherine_II_by_A.Albertrandi_after_Rokotov.jpg. Accessed 26 November 2024.

This was VACCINATION: the administration of a substance that is used to stimulate the body's immune response against infection. Such substances ("vaccines") consist of live or weakened bacteria or viruses or pieces of them.

Vaccination was first practiced in 1796, the same year Catherine the Great died. Edward Jenner, an English rural physician, had overheard a milkmaid say, "I shall never have smallpox for I have had cowpox. I shall never have an ugly pockmarked face."¹ Jenner recognized the potential of this information since he knew that cowpox was much safer for humans than smallpox. He tested the maid's folk wisdom by inoculating a boy with cowpox pus after which he then exposed the child to smallpox. The boy did not become infected. Jenner then exposed 13 people who had previously contracted horsepox or cowpox and they, too, were spared. Combining the Latin word for cow "vacca" and the word "inoculation," Jenner wrote a paper documenting his "vaccination" experiments and the results he had observed and submitted it to the Royal Society of London for publication. In what might be the first case of vaccine hesitancy in history, the Society rejected his paper though, in all fairness, the original version was a rambling, disconnected effort.²

By the late 18th century, smallpox had been "a scourge against humanity for at least the past 1500 years." In what was later called VARIOLATION, people in 10th century China began using material from active smallpox infections to inoculate some of the population against the disease.³ "[S]cabs from someone with a mild case of smallpox were ground into a powder and diluted with water or wine, then set aside for a month or exposed to hot steam to weaken the viral load. The mixture was either blown up the nose by means of a long pipe (insufflation) or introduced under the skin with a needle."⁴ Those who were variolated still developed smallpox, but cases were usually mild and did not generally result in severe complications or death. Variolation against smallpox was subsequently discovered independently in India, Turkey and Africa.⁵

While in Constantinople in 1717, the British Ambassador's wife learned of variolation being performed at the Ottoman court. Four years later, at her urging, "several prisoners and abandoned children" were given inoculations from active smallpox sores. Some months later these subjects were "deliberately exposed to smallpox," but none became ill. The procedure was "deemed safe" and the royal family was variolated. In time, inoculation became "fashionable" in Europe.⁶

That same year, 1721, a smallpox epidemic broke out in Boston. A few years earlier, the influential Puritan minister, Cotton Mather, had learned of variolation from his West African slave Onesimus. He recommended that all physicians in Boston adopt the practice, but only Dr. Zabdiel Boylston complied. Boylston was "met by hostility" by other physicians, and "many threats were made on his life."⁵ Before the epidemic had run its course, smallpox had infected about half of Boston's population of 12,000. Only 2% of Boylston's patients died compared to 14% of unvariolated people.⁶ Three years later he sailed to London where he published his results and later became a fellow of the Royal Society.⁷

German Princess Sophia Augusta Frederica von Anhalt-Zerbst, who later assumed the name Catherine, was born in 1729. She married the future Tsar Peter III of Russia at age 16. Catherine studied the writings of European luminaries and philosophers and became a product of the Enlightenment, valuing science and progress. In 1762 she became Empress of Russia. Catherine was concerned for the health of herself and her son Paul, particularly with regards smallpox, which was killing up to 30%⁸ of those who became infected. She became aware of the work of Thomas Dimsdale, "a British physician who successfully inoculated the British royal family." Catherine invited him to Russia in 1768 to variolate her and her son, thus "demonstrating her trust in science and her willingness to lead by example." Catherine was the first person in Russia to be inoculated. This act of courage "helped build public trust in the procedure." "Despite initial resistance and superstition against the practice, Catherine's successful inoculation and public endorsement of the procedure led to widespread" acceptance of variolation in the Empire.⁹

Dad was not so well-known and was not nearly as powerful as Catherine the Great, but he and she had one thing in common: they were both inoculated against smallpox. Both had biological substances scratched or poked into their skin to prevent this disease. In Catherine's case it was variolation by an eminent physician and in dad's it was vaccination administered by his loving mother.

Endnotes:

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3. Belongia and Naleway, "Smallpox Vaccine: The Good, the Bad, and the Ugly."
4. Arthur Boylston, "The Origins of Inoculation," *Journal of the Royal Society of Medicine* 105, no. 7 (July 2012): 309–313 referenced in Susan Spencer, "Variolation to Vaccine: Smallpox Inoculation Travels East to West and Back Again," *Association for Asian Studies*, Spring 2022, <https://www.asianstudies.org/publications/ea/archives/variolation-to-vaccine-smallpox-inoculation-travels-east-to-west-and-back-again/>. Accessed May 17, 2024.
5. Belongia and Naleway, "Smallpox Vaccine: The Good, the Bad, and the Ugly."
6. "Smallpox: A Great and Terrible Scourge," *History of Medicine*, National Library of Medicine, last reviewed March 5, 2024, https://www.nlm.nih.gov/exhibition/smallpox/sp_variolation.html. Accessed April 29, 2024.
7. "Zabdiel Boylston," Wikipedia, last modified April 27, 2024, https://en.wikipedia.org/wiki/Zabdiel_Boylston. Accessed April 29, 2024.
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