

The Salem Witchcraft Trials and the Role of Hallucinogens

Max Wayne

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Modern science and medicine has unlocked many mysteries of the past. For example, scientists have proven that diseases carried by Europeans caused the rapid extermination of Native Americans who had no prior exposure to these diseases. Another mystery that has baffled historians for years is the Salem Witchcraft Trials. It is hard to believe that a community would kill twenty people and imprison hundreds of others based on superstitions and their fear of the devil. Recently studies theorize that the presence of a hallucinogenic mold on the rye eaten by those at Salem may have been the cause of the hysteria (Wong).

The plant disease Ergot of Rye is caused by a fungus that enables it to grow on the rye plant and other grains. It was not until the 1850s that scientists discovered that ergot is not a natural part of the rye plant (Wong). Ergot contains the hallucinogenic drug LSD or lysergic acid diethylamide. Discovered in 1943 by the organic chemist Dr Albert Hofmann, LSD became popular in the 1960s for its hallucinogenic powers (Gibson).

In December of 1691, several young girls living in Salem, Massachusetts began to experience strange symptoms: “temporary blindness, uncontrollable screaming, deafness, diving under furniture, and [feeling] like something was pinching and spitting at them” (Smith). Likewise the symptoms of ergotism, or poisoning by Ergot of Rye, include “nervous dysfunction, where the victim is twisting and contorting their body in pain, trembling and shaking, and wryneck, a more or less fixed twisting of the neck, which seems to simulate convulsions or fits. In some cases, this is accompanied by muscle spasms, confusions, delusions and hallucinations” (Wong). As more people became

afflicted with the same symptoms, local doctors were called upon for a diagnosis.

However, the doctors were unable to come up with a plausible explanation or cure, leading one to determine the cause was witchcraft (Caporael).

When colonists first landed along the Atlantic coast, they discovered that wild rye was the common grass. Rye is a host plant for ergot, and from early colonist observations that the grass made their cattle ill, it is safe to assume that ergot was native to North America (Caporael). Furthermore, rye was the best and most dependable of the grains that settlers brought with them from Europe and it grew well in America. As a result of the harsh winters, this rye was planted in April and harvested in August (Caporael). Ergot is better suited to grow in the spring, particularly when there is more rain (Wong). The diaries of Samuel Sewell confirm this, as he details that in 1691 there were early rains in the spring followed by a summer filled with storms (Thomas). The following harvest in August of 1692 would not have been contaminated, since a summer drought would have provided poor growing conditions for the ergot (Caporael).

The ergotism theory is also supported by the locations and groups of people that became afflicted with “witchcraft.” One of the girls who exhibited these symptoms was Ann Putnam, daughter of John Putnam. John Putnam was one of the most influential elders in Salem Village (Linder). Putnam’s wealth and state came from the large swath of farmlands he held in the western sector of the village. This land was swampy and as such was not only valuable farmland but also prime location for the growth of ergot (Caporael). Contamination on the west side of the village is also supported by the locations of those people who accused or were afflicted with ergotism, were accused of causing the “witchcraft”, and defended those accused. “Excluding the afflicted girls, 30

of 32 adult accusers lived in the western section and 12 of the 14 accused witches lived in the eastern section, as did 24 of the 29 defenders” (Caporael).

All of those who were first afflicted were young girls who likely ate contaminated grain. That they were all young girls supports the ergotism theory because “ergotism affect[s] mainly women and children” (Mixon 180). Three of the girls initially infected lived on John Putnam’s estate, where it is highly likely the Ergot of Rye grew (Caporael). Two of the other girls afflicted were the daughter and niece of Samuel Parris, who was invited into town to preach at the behest of John Putnam (Linder). Parris lived in the center of town, but received salary in the form of provisions. Since Putnam was one of the wealthiest men in town and therefore would have to pay a greater part of Putnam’s salary, a large part of the grain Parris ate would have come from Putnam’s infected fields (Caporael). Of the three other girls who developed symptoms early on in the terror, one, Elizabeth Hubbard was in the service of a Dr Griggs. Griggs would likely have had Putnam grain because he was not a farmer but a professional man, thus would take wages in the form of provisions, likely from Putnam whose wife was often ill. Of the other two girls, at least one was a fraud and possibly the second (Caporael).

In early spring, one villager determined to make a “witch cake” and then feed it to a dog. This cake consisted of the ergot infected rye and the urine of those afflicted. After eating the cake, the dog also came down with similar symptoms as a result of eating the hallucinogen (Smith). Sadly, this fed the witchcraft hysteria and likely contributed to the frenzied hunt to find those consorting with the devil.

The testimony of those on trial for witchcraft can also be seen as support for the ergot poisoning theory. The trial records show that it was interrupted when the girls had

violent fits and saw invisible “specters.” Furthermore, records illustrate that the girls suffered from seemingly being pinched and bitten by their hallucinations. Also, they suffered from choking and vomiting. All of these are consistent with symptoms of being poisoned by ergot, such as the hallucinations, involuntary muscle spasms, and tingling sensations (Caporael). One of the men on trial, a Joseph Bayley, testified that a “dozen ‘strange things’ appear[ed] in his chimney in a dark room. They appeared to be something like jelly and quavered with a strange motion. Shortly, they disappeared and a light the size of a hand appeared in the chimney and quivered and shook with an upward motion” (Caporael). Just like with someone high on LSD, his wife, in the room the entire time, experienced nothing.

Unfortunately for those living in Salem, Massachusetts in 1691 and 1692, the knowledge that Ergot of Rye can cause hallucinations was unknown. Thus, the village resorted to terror and superstition to try and weed out “the devil.” In no way does this excuse the behavior of those living in Salem. However, it does help explain one of the most notorious and bizarre moments in early American history. Likewise, it provides an early example of the effects of drugs on American society.

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