Scopolamine Poisoning and the Death of Dimmesdale in *The Scarlet Letter*

Wanda Faye Jones

Twenty years ago Jemshed A. Khan created controversy when his article "Atropine Poisoning in Hawthorne's *The Scarlet Letter*" appeared in the *New England Journal of Medicine*. In the article, Khan argues that Arthur Dimmesdale's death results from chronic atropine poisoning. Atropine is found in plants belonging to the deadly nightshade family, which includes belladonna, jimsonweed, and henbane. When ingested or rubbed into the skin, atropine can cause a variety of symptoms, including cardiovascular problems, hallucinations, convulsions, and rashes.

Khan's theory has since been challenged by "critics [who] claim that Khan adulterated the facts of the classic novel in an attempt to find a medical explanation for a death caused by a guilty conscience" (Emery B-02). In this respect, conventional criticism has considered *The Scarlet Letter* as a moral parable about retribution and redemption. As Richard Harter Fogle states:

> the sin of *The Scarlet Letter* is a symbol of the original sin, by which no man is untouched. All mortals commit the sin in one form or another, which is perhaps the meaning of "your worst" in the exhortation occasioned by the death of Dimmesdale. Hester, having sinned, makes the best possible recovery. . . . Yet the sin remains real and inescapable, and she spends her life in retribution, the death of her lover Dimmesdale having finally taught her that this is the only way. (133)

According to this traditional view, then, Dimmesdale's secret sin is so great that the burden of carrying the secret literally kills him. By contrast, Hester survives because her sin is exposed and because she boldly acknowledges it, even if she may not repent. Karl D. Kieburtz, however, believes that Dimmesdale's death does not necessarily have to result from a guilt-ridden heart. He notes that "Hawthorne obviously
knew about atropine because he used it in a short story ["Rappaccini’s Daughter"] published six years before *The Scarlet Letter* (Emery B-02). Is it possible, then, that Hawthorne was aware of other poisons and used them in his short stories and novels? A closer reading of *The Scarlet Letter* suggests that, despite Khan’s or Kieburtz’s claims, instead of atropine, Chillingworth uses another poison called scopolamine,\(^1\) a poison that not only allows Chillingworth to probe Dimmesdale’s heart for hidden secrets but also showcases Hawthorne’s growing fear of a new science gaining in popularity during the early nineteenth century: mesmerism.

Hawthorne was definitely no stranger to the scientific advances of his time. When he served as editor of *The American Magazine of Useful and Entertaining Knowledge*, he made sure that scientific articles appeared in every issue. Samuel James Lubell explains that Hawthorne’s stint as editor of the magazine exposed him to many scientific texts:

> Each issue [of the magazine] contained a few short articles on science, generally accounts from the natural sciences on animals, fossils, and scientific exploring expeditions. Some of his articles’ sources point towards much science reading by the young Nathaniel Hawthorne, most notably “Mind and Matter” . . . identified as from “Babbage on the Economy of Machinery,” “Extinct Animals” . . . from the *Magasin Universal*, and the “Apparent Distance of objects” . . . from Arnott’s *Elements of Physics*. (Lubell par. 6)

Unfortunately, Hawthorne’s extensive reading of these texts led to skepticism. He wondered whether many of the new sciences, such as phrenology and magnetism, were not actually pseudo-sciences. “Because Hawthorne did not know the extent and powers of these sciences, he feared them” (Lubell par. 9), and the one science he feared above all others was mesmerism.\(^2\)

Mesmerism—modern day hypnosis—was very popular during the early nineteenth century, and Hawthorne had firsthand knowledge of mesmeric practices through his relationship with Sophia Peabody—his future wife. Sophia experimented with mesmerism in an effort to cure her chronic headaches, but she was not the first in her family to resort to this new science. Her father, a dentist in Boston, began “using
hypnotism to perform painless extractions" (Tharp 103). Dr. Peabody hired a hypnotist named Fiske, and Sophia turned to Dr. Fiske to help with her headaches. Sophia's regular treatments with Dr. Fiske seemed to soothe her headaches, but when Hawthorne discovered that she was seeing a mesmerist, he objected strongly because he believed that "any form of hypnotism was intolerable; it was the surrendering of one immortal soul to the will of another—an evil thing in the sight of God and man" (Tharp 121).

Hawthorne demonstrates how evil mesmerism can be in his novels *The House of the Seven Gables* and *The Blithedale Romance*. In *Seven Gables*, for example, the use of mesmerism leads to the death of Alice Pyncheon. Young Matthew Maule mesmerizes Alice in an attempt to find the deed to the house, but he refuses to release Alice from her trance; and one night while doing Matthew's bidding, Alice catches pneumonia and eventually dies. In *Blithedale*, Professor Westervelt epitomizes Hawthorne's fear of mesmerists. From Westervelt's first appearance, some evil seems to emanate from him. Coverdale, for instance, fears Westervelt's "black eyes [that] sparkled at [him], whether with fun or malice [he] knew not, but certainly as if the Devil were peeping out of them" (94). Thomas St. John notes that Hawthorne believed an attempt to hypnotize a woman "violate[ed] a woman's 'reserve and sanctity of soul,' an effort to reduce her to a 'performing beast on the stage'" ("Wesselhoeft" par. 12). Priscilla literally becomes the "beast" when Westervelt turns her into a freak act. Just as Maule and Westervelt are considered evil for trying to control Alice's and Priscilla's souls through hypnotism, so too is Roger Chillingworth because he wants to control Dimmesdale's soul; and Chillingworth attempts to gain this control by using scopolamine, a poison Dr. Camillo Uribe, a scopolamine specialist, says causes chemical hypnosis.

Case studies done by Alfredo Ardila and Carlos Moreno prove that scopolamine causes hypnotic states. In Columbia, for example, scopolamine is known as the "Zombie Drug" because people intoxicated with scopolamine are susceptible to the suggestions of others. In essence, people drugged with scopolamine have no free will. One study done by Ardila and Moreno shows the extent to which a person may be manipulated when drugged with scopolamine:
TG is a professional 28-year-old woman. She works in an office for the distribution of pharmacological products. After leaving her office in downtown Bogota at 11:00 AM, an elegantly dressed man with an apparently foreign accent approached her, asking information about a particular address in the city. She does not remember anything else until 2:30 PM. During this time, from 11:00 AM to 2:30 PM . . . she returned to her office . . . asked for her salary check, went to the bank, and cashed it. She gave the money to the offender. . . . She was taken by a relative to a local hospital. . . . Her urine exam was positive for scopolamine. . . . (239–40)

Inasmuch as Chillingworth's main purpose is to torture Dimmesdale, the slow process of poisoning him with scopolamine is a perfect form of torture.

When Chillingworth first enters the action in *The Scarlet Letter*, he sees his wife standing on a scaffold being publicly punished for committing adultery. In her arms is her baby, Pearl, the child Hester conceived during her illicit affair. Anyone can understand Chillingworth's anger at discovering that he has been cuckolded; one can even understand his desire for revenge. Yet many critics do not believe that Chillingworth poisons Dimmesdale. Marcia Zorn, for example, points out that Khan's argument is faulty because "'naming [a] poison serves no purpose for Hawthorne or a reader and detracts from the higher truth and purpose of his parable'" (Emery B-02). However, Hawthorne leaves it up to the reader to figure out "the hidden practices of [Chillingworth's] revenge" (196).

As a physician, as well as a European practitioner of the dark arts, Chillingworth must have some knowledge of poisons and how to administer them. Indeed, Hawthorne specifically names poisonous herbs and roots in the novel. The first poisonous plant to appear is apple-peru. Later in the novel, Hester speaks of "deadly nightshade, dogwood, [and] henbane" growing upon the spot where Chillingworth may "suddenly sink into the earth" to return to hell (175–76). The reader knows Roger is aware of the local plants and their properties because, "in his Indian captivity. . . . he had gained much knowledge of the properties of native herbs and roots; . . . these simple medicines, Nature's boon to the untutored savage, had quite as large a share of his own confidence as the European pharmacopoeia, which so many
learned doctors had spent centuries in elaborating" (119–20). The
townspeople acknowledge that the Indians are “powerful enchanters,
often performing seemingly miraculous cures by their skill in the black
art” (127). They also observe that Chillingworth “gathered herbs, and
the blossoms of wild-flowers, and dug up roots and plucked off twigs
from the forest-trees, like one acquainted with hidden virtues in what
was valueless to common eyes” (121).

Chillingworth definitely would not have a problem extracting poi-
sions from these plants, considering that, when he moves in with
Dimmesdale, he “arranged his study and laboratory; not such as a
modern man of science would reckon even tolerably complete, but
provided with a distilling apparatus, and the means of compounding
drugs and chemicals, which the practised alchemist knew well how to
turn to purpose” (126). The only issue that remains to be determined
is whether Hawthorne had knowledge of scopolamine and its affects.
This question can be answered by looking once again at his relation-
ship with Sophia Peabody.

Ironically, Sophia’s sessions with Dr. Fiske were not the first under
which she had endured a type of hypnosis. Her father attempted to
control her headaches by keeping her heavily drugged. Thomas St.
John claims that

since her early childhood Sophia had been given heavy doses of
paregoric (opium). But Dr. Peabody, even after accepting Homeo-
pathic theory, and against his own better judgment, laced his
daughter with large doses of laudanum, mercury, arsenic, and
henbane or hyoscyamus niger. Sophia was literally a sleeping
beauty. (“Wesselhoeft” par. 18)

St. John refers to Sophia as a “sleeping beauty” because “hyoscyamus
niger—black henbane—produced a twilight sleep” (“Sleeping” par.
49). It is the scopolamine found in henbane that causes this twilight
sleep. A study done by the CIA’s Program of Research in Behavioral
Modification claims that

early in this century physicians began to employ scopolamine,
along with morphine and chloroform, to induce a state of “twilight
sleep” during childbirth. A constituent of henbane, scopolamine
was known to produce sedation and drowsiness, confusion and
disorientation, incoordination, and amnesia for events experienced during intoxication. Yet physicians noted that women in twilight sleep answered questions accurately and often volunteered exceedingly candid remarks. (27)

It is quite possible that Hawthorne witnessed or heard about one of Sophia’s drug-induced hypnotic trances and learned of the hypnotic properties of scopolamine.

Chillingworth, in his medical studies, probably learned something about the uses of scopolamine. “During the Middle Ages . . . scopolamine was used as anesthetic during surgery, until physicians were accused of sorcery upon the disclosure of their patients’ odd dreams” (Binotto 2). The physicians can recount these dreams because the surgical patients experience twilight sleep. Even if Chillingworth did not know about the use of scopolamine in surgery, he may have learned about it during his Indian captivity. Binotto claims that some American Indians “smoked” plants containing scopolamine and “employed [them] in ritualistic ceremonies for young men’s coming of age” (2). Chillingworth can be imagined as a witness to such a ceremony during his captivity. Furthermore, the reader already knows that the Indians taught Chillingworth recipes using indigenous plants and herbs.

After his conversation with Hester in the jailhouse, Chillingworth seems almost immediately to suspect that Dimmesdale is Hester’s lover. Most likely, he begins to give Dimmesdale scopolamine once they start living together. When Chillingworth tries to discover Dimmesdale’s secrets, however, his efforts are frustrated:

they [Roger and Arthur] discussed every topic of ethics and religion, of public affairs, and private character; they talked much, on both sides, of matters that seemed personal to themselves; and yet no secret, such as the physician fancied must exist there, ever stole out of the minister’s consciousness into his companion’s ear. The latter had his suspicions, indeed, that even the nature of Mr. Dimmesdale’s bodily disease had never fairly been revealed to him. It was a strange reserve! (125)

Chillingworth tries to probe deeper into Dimmesdale’s heart, but not until he observes Dimmesdale’s bosom does he have the proof he needs. One will note that early in chapter ten Chillingworth brings in
“black weeds” with “a dark flabby leaf” (131). He says that the weeds “are new to [him],” but he knows about the plant life in the area; thus he is probably lying so that Dimmesdale will not suspect he is being poisoned. Nothing will keep Roger from discovering the truth that lies within Dimmesdale’s heart. In fact, he forms a new, darker plan.

In a sense, Chillingworth intends to become Dimmesdale’s priest, the one to whom Dimmesdale will confess his hidden secrets. Chillingworth’s new plan is frustrated, however, because “the clergyman’s shy and sensitive reserve had balked this scheme” (139). Indeed, Dimmesdale seems to be able to avoid answering any of Chillingworth’s questions, and therefore Chillingworth very likely begins to increase the dose of scopolamine he has been giving Dimmesdale in order to penetrate his “strange reserve.”

The novel contains other evidence to suggest that Dimmesdale is poisoned with scopolamine. Scopolamine was once used as a truth serum, but its use was discontinued when doctors discovered that scopolamine produced many side effects. For example, the CIA’s Program of Research in Behavioral Modification found that “among the most disabling of the side effects are hallucinations, disturbed perception, somnolence, and physiological phenomena such as headache, rapid heart, and blurred vision” (27). Dimmesdale suffers from most if not all of these side effects. At one point he has “visions” and sees “ghosts” (145). He also notes that he “constantly [has] a dim perception” of some evil surrounding him (140). More importantly, scopolamine causes somnolence—deep sleep. At the end of chapter ten, Dimmesdale falls “into a deep, deep slumber” and “the profound depth of the minister’s repose was the more remarkable; inasmuch as he was one of those persons whose sleep, ordinarily, is as light, as fitful, and as easily scared away, as a small bird hopping on a twig” (138). His sleep is so deep that Chillingworth uses no “extraordinary precaution” when he enters the room, and he even “stamp[s] his foot upon the floor,” but Dimmesdale does not awaken (138).

Of additional importance is the means by which Chillingworth discovers that Arthur and Hester plan to flee Boston together by ship. He does not speak to Hester between the time of the seaside conversation and the Election Day celebration, and Hawthorne does not reveal
Dimmesdale's saying anything to Roger of his plan to leave with Hester. The only explanation is that Chillingworth must give Dimmesdale a dose of scopolamine to get the truth out of him, thus leading to Chillingworth's booking passage on the same ship so that he may continue to torture Dimmesdale.

Finally, it is obvious that Dimmesdale suffers from some form of heart trouble, a major symptom of scopolamine poisoning. When Hester is standing on the scaffold being punished, Dimmesdale is seen with his hand over his heart after Hester refuses to give up the name of her child's father. Although it may be argued that Dimmesdale's action proves that he already suffers from heart complications before meeting Chillingworth, simply placing his hand over his heart does not mean that Dimmesdale has a physiological problem. Later in the novel, however, when Dimmesdale is "often observed, on any slight alarm or other sudden accident, to put his hand over his heart, with first a flush and then a paleness, indicative of pain" (120), the gesture has become "a constant habit, rather than a casual gesture" only after Chillingworth has begun to treat Dimmesdale with scopolamine (122).

The possibility that Dimmesdale may have been poisoned is disturbing for some critics because they believe the presence of poison is an attempt to "turn a moralistic novel into a detective story" (Emery B-02). But Khan argues that "everybody knows whodunit; the question is howhedunit" (Emery B-02). Phillip Young even contends that Khan is trying to prove that Chillingworth murdered Dimmesdale, but this is not Khan's intention, nor is it mine. When Chillingworth tells Dimmesdale, "Thou hast escaped me!" (256), as the minister is dying, the leech's reaction to his patient's death is proof that Chillingworth does not want Dimmesdale to die, for "no murderer could put such a complaint to his victim" (Emery B-02). Indeed, "the doctor never poisoned the minister as an attempt to kill Dimmesdale, only to torture the man who committed adultery with his wife" (Emery B-02). When Chillingworth first speaks with Hester in the jailhouse, he informs her that she should not worry about her lover, because he will not "con-trive aught against his life; no, nor against his fame" (76). He tells Hester of her lover: "Let him live! Let him hide himself in outward honor, if he may!" (76).
If readers believe Chillingworth is a murderer, it is Hawthorne who plants the seeds of doubt in their minds. For instance, the people of the small Boston community, who at first believe “that Heaven had wrought an absolute miracle, by transporting an eminent Doctor of Physic, from a German university, bodily through the air, and setting him down at the door of Mr. Dimmesdale’s study” begin to grow suspicious of Chillingworth after he moves into the same house in order to treat the minister’s illness (121). The townspeople notice that Dimmesdale does not get better. Soon, rumors begin to spread about Chillingworth and his medical practices in London: “There was an aged handicraftsman, it is true, who had been a citizen of London at the period of Sir Thomas Overbury’s murder, now some thirty years ago; he testified to having seen the physician under some other name, . . . in company with Doctor Forman, the famous old conjurer, who was implicated in the affair of Overbury” (127).3

Although the craftsman does not remember that Chillingworth’s real name is Prynne, he does remember that the physician was seen with a conjurer: a person who studies the black arts. Chillingworth’s link to Forman only strengthens the people’s suspicion that Chillingworth may be harming Dimmesdale.

In addition, Hester’s reaction to Chillingworth when he first tries to give baby Pearl a potion to treat her “convulsions of pain” (70) only adds to the reader’s belief that Chillingworth is capable of murder:

Hester repelled the offered medicine, at the same time gazing with strongly marked apprehension into his face.

“Wouldst thou avenge thyself on the innocent babe?” whispered she.

“Foolish woman!” responded the physician, half coldly, half soothingly. “What should ail me to harm this misbegotten and miserable babe? The medicine is potent for good; and were it my child,—yea, mine own, as well as thine!—I could do no better for it.” (72)

Hester’s automatic assumption that Roger’s medicine might hurt her child suggests that Chillingworth has previously used his medicine for malicious purposes. When he offers Hester medicine, she takes it only when she realizes that it will give him more pleasure to see her live and
suffer public humiliation.

Roger Chillingworth's former practices with medicine and the black arts create suspicion in characters and readers alike. Although he is possibly capable of murder, his reaction to Dimmesdale’s death shows that he does not want Dimmesdale dead; he wants to prolong an exquisite torture. Dimmesdale’s death is sudden and unexpected, aided by prolonged use of scopolamine.

University of West Alabama

Notes

1 Scopolamine has been used for centuries for various purposes. Women of ancient Egypt and Rome used to place juiced laced with scopolamine in their eyes to enlarge their pupils; large pupils were considered more beautiful. Witches during Medieval times were thought to rub an ointment made of scopolamine onto their broomsticks to induce feelings of flight.

2 Hawthorne may have feared mesmerism, but he was also fascinated by mesmeric practices and incorporated mesmerism into many of his tales and novels. For a detailed discussion of Hawthorne's use of mesmerism in his works, see Samuel Chase Coale's *Mesmerism and Hawthorne: Mediums of American Romance* (Tuscaloosa: U of Alabama P, 1998).

3 Thomas Overbury was opposed to the marriage of his friend Robert Carr, Lord of Somerset, to the Countess of Essex, Frances Howard. When Overbury was imprisoned in the Tower, the Countess convinced two apothecaries to poison Overbury.

Works Cited


Copyright of Nathaniel Hawthorne Review is the property of Nathaniel Hawthorne Society and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.