the wall of a house where she had lived they found dolls with headless pins stuck in them.

The evidence was circumstantial. But evidence is hard to find in witchcraft cases, since witchcraft is, after all, conducted in secret. Coupled with other testimony, the finding of the dolls was very convincing. I think there is no question that the same evidence would have got Bridget Bishop hanged in England, or burned in Scotland or on the Continent. Indeed, it is extremely probable that Bridget Bishop was a practicing witch. It is possible that, of those who were hanged, the same is true of one or two others, although the evidence in their cases is much less persuasive. But the majority were executed on only two grounds, spectral evidence plus the accumulating weight of the confessions, and there is now no doubt at all that the majority were innocent.

What brought the matter to an end, however, was not the suspicion that some of those executed might have been innocent so much as the astonishing multiplication in the number of those accused, coupled with the fact that as the accusations multiplied they ceased to be directed at persons likely to be witches—persons of known malevolence, or otherwise disreputable. Indeed the accusations finally included persons so obviously virtuous and innocent that nobody could believe them guilty. (Similar circumstances ended the career of the late Senator McCarthy. The nation simply could not believe that all those clean-cut young Army officers were subversive.)

On October 3 the Reverend Increase Mather read his "Cases of Conscience Concerning Evil Spirits Personating Men" to the ministers of Boston, and it was primarily this document that convinced Governor Phips, later in the month, to forbid further arrests or executions. By the end of the month the General Court (the legislature) had dismissed the Special Court of Oyer and Terminer, and called for a fast and the ministers' counsel.

# Medical and Psychological Explanations

The early historians of Salem witchcraft had little patience with the argument that the afflicted girls were mentally unbalanced. But as the scientific study of the mind grew to respectability, it became possible to explain the witchcraft outbreak in psychological terms. By the early twentieth century, it was widely accepted that some sort of "hysteria" played a part in the tragedy.

In a 1943 article in the American Journal of Diseases of Children, ERNEST CAULFIELD (1894–1972), a pediatrician and amateur historian, attempted to give some substance to this thesis. He began by analyzing seventeenth century descriptions of the behavior of children who were thought to be bewitched, and paid particular attention to an account by Cotton Mather of a young Boston girl, Martha Goodwin. Caulfield determines that these children were indeed suffering from hysteria, and he proceeds to explain how the precarious mental state of Puritan young people was brought about by the morbid and repressive nature of their upbringing.

But does Caulfield really come to grips with the vague concept of hysteria? If all Puritan children shared a tendency to hysteria, why is it that the affliction did not erupt in other New England towns as it did in Salem? Conversely, why did equally violent episodes of witch hunting occur in non-Puritan societies where, presumably, childrearing practices were different?

## 8. A Physician Diagnoses Hysteria

Fortunately, because it is helpful in the diagnosis, there still exists a record of one case of witchcraft in which the fits of some bewitched children are described in great detail. This is called "Memorable Providences, Relating to Witchcraft and Possessions," and chiefly because of its detailed descriptions it is a most valuable contribution to early American medicine, though not hitherto so regarded. This case history of the Goodwin children was written a few years before the Salem tragedy. On the surface, it may seem illogical to use a Boston witchcraft case of 1688 to help explain the Salem cases of 1692,

From Ernest Caulfield, "Pediatric Aspects of the Salem Witchcraft Tragedy," *American Journal of Diseases of Children*, vol. 65 (May 1943), pp. 788–802. Copyright 1943, American Medical Association. Reprinted by permission of the American Medical Association.

but all historians agree on the almost perfect similarity in the cases and my only reason for citing these earlier cases from Boston is that here one finds a connected story limited almost exclusively to a description of the fits. Another objection to using the "Memorable Providences" is that the author, Cotton Mather, is known to have been prejudiced in favor of witchcraft. But strange as it may seem to some, the Puritans, and particularly Cotton Mather, did not oppose, but indeed advanced, the growth of science. It was this same Cotton Mather, member of the Royal Society, who wrote the first American description of measles (which, incidentally, is an American classic), and it was he who, in spite of tremendous opposition from the medical profession, influenced Zabdiel Boylston to try inoculation against smallpox, the first step toward the prevention of diseases. Mather steadfastly maintained in his "Memorable Providences" that he was recording actual facts, and, though considerable allowance should be made for his superstition, gullibility and firm belief in witchcraft, it is clear that the descriptions must have been founded mostly on observations, not only because of the similarity to the Salem court records, with which he had nothing to do, but chiefly because, even after these two hundred and fifty years, one can recognize the sickness that afflicted the Goodwin children as easily as though they had had the smallpox.

The "Memorable Providences" concerns John Goodwin, a mason, and his wife, who with their six children, Nathaniel 15, Martha 13, John 11, Mercy 7 and Benjamin 5 years and Hannah 6 months old, comprised an extremely religious family. Indeed, from some of his devout letters still extant it appears that John Goodwin was the kind of mason who would have said a prayer every time he laid a brick. One day Martha Goodwin accused the family washerwoman of stealing some of the family linen, whereupon the washerwoman's "wild Irish" mother, old Goody Glover, "bestow'd very bad Language upon the Girl . . . immediately upon which, the poor child became variously indisposed in her health, and visited with strange Fits, beyond those that attend an Epilepsy, or a Catalepsy, or those they call The Diseases of Astonishment." Shortly after, John, Mercy and Benjamin began to behave in a strange manner too, though "the godly father and the suckling Infant, were not afflicted" nor was Nathaniel except in slight degree. The most skilful Boston physicians, unable to find any physical cause, concluded that the children were afflicted with "an Hellish Witchcraft," and, needless to say, poor Goody Glover was therefore put to death. Later, Cotton Mather took the afflicted Martha Goodwin into his own home and after many months of observation wrote his account, from which the following passage is taken:

The variety of their tortures increased continually; and tho about Nine or Ten at Night they alwaies had a Release from their miseries, and ate, and slept all night for the most part indifferently well, yet in the day time they were handled with so many sorts of Ails, that it would require of us almost as much time to Relate them all, as it did of them to Endure them. Sometimes they would be Deaf, sometimes Dumb, and sometimes Blind, and often, all this at once. One while their Tongues would be drawn down their Throats; another-while they would be pull'd out upon their Chins, to a prodigious length. They would have their Mouths opened unto such a Wideness, that their Jaws went out of joint; and anon they would clap together again with the Force like that of a strong Spring-Lock. The same would happen to their Shoulder-Blades, and their Elbows, and Handwrists, and several of their joints. They would at times ly in a benummed condition; and be drawn together as those that are ty'd Neck and Heels; and presently be stretched out, yea, drawn Backwards, to such a degree that it was fear'd the very skin of their Bellies would have crack'd. They would make most pitteous out-cries, that they were cut with Knives, and struck with Blows that they could not bear. Their necks would be broken, so that their Neck-bone would seem dissolved unto them that felt after it; and yet on the sudden, it would become again so stiff that there was no stirring of their Heads; yea, their Heads would be twisted almost round; and if main force at any time obstructed a dangerous motion which they seem'd to be upon, they would roar exceedingly. . . .

The Fits of the Children yet more arriv'd unto such Motions as were beyond the Efficacy of any natural Distemper in the World. They would bark at one another like Dogs, and again purr like so many Cats. They would sometimes complain, that they were in a Red-hot Oven, sweating and panting at the same time unreasonably: Anon they would say, Cold water was thrown upon them, at which they would shiver very much. They would cry out of dismal Blowes with great Cudgels laid upon them; and tho' we saw no cudgels nor blowes, yet we could see the Marks left by them in Red Streaks upon their bodies afterward. And one of them [John, 11 years old] would be roasted on an invisible Spit, run into his Mouth, and out at his Foot, he lying, and rolling, and groaning as if it had been so in the most sensible manner in the world; and then he would shriek, that Knives were cutting of him. Sometimes also he would have his head so forcibly, tho not visibly, nail'd unto the Floor, that it was as much as a strong man could do to pull it up. One while they would all be so limber, that it was judg'd every Bone of them could be bent. Another while they would be so stiff, that not a joint of them could be stir'd. . . .

Many wayes did the Devils take to make the children do mischief both to themselves and others; but thro the singular Providence of God, they always fail'd in the attempts. For they could never essay the doing of any harm, unless there were some-body at hand that might prevent it; and seldome without first shrieking out, "They say, I must do such a thing!" Diverse times they went to strike furious Blowes at their tenderest and dearest friends, or to fling them down staires when they had them at the top, but the warnings from the mouths of the children themselves, would still anticipate what the Devils did intend. They diverse times were very near Burning or Drowning of themselves, but the children themselves by their own pittiful and seasonale cries for help, still procurred their Deliverance. . . . But if any small Mischief happen'd to be done where they were; as the Tearing or Dirtying of a Garment, the Falling of a Cup, the breaking of a Glass or the like; they would rejoice extremely, and fall into a pleasure and Laughter very extraordinary. . . .

Variety of Tortures now seiz'd upon the Girl [Martha, 13 years old]; in which besides the forementioned Ails returning upon her, she often would cough up a Ball as big as a small Egg, into the side of her Wind-pipe, that would near choak her, till by Stroking and by Drinking it was carried down again. . . .

The Last Fit that the young woman had, was very peculiar. The Daemons having once again seiz'd her, they made her pretend to be Dying, and Dying truly we fear'd at last she was: She lay, she tossed, she pull'd just like one Dying, and urged hard for some to dy with her, seeming loth to dy alone. She argued concerning Death, in strains that quite amazed us; and concluded, That though she was loth to dy, yet if God said she must, she must; adding something about the state of the Country, which we wondered at. Anon, the Fit went over; and as I guessed it would be, it was the last Fit she had at our House.

Inasmuch as old men and women were condemned to death as wizards and witches on this sort of evidence, it is easy to understand the unbridled scorn of the historians; and yet it is important to emphasize that there is enough here, to say nothing of the passages not cited, for an abolute diagnosis. It is also easy to show that the Salem children suffered from hysteria too, for there is hardly a sign or symptom manifested by Martha Goodwin that did not have its counterpart in one or another of the Salem children during their bewitchment. They too made "great noises" during their "lamentable fits and agonies"; they too were "dreadfully tortured" and "struck dumb and senseless for a season"; according to the Rev. Mr. Hale, "Sometimes they were taken

dumb, their mouths stopped, their throats choked, their limbs wracked and tormented so as might move an heart of stone." Samuel Sewall, of all the Puritans the most generally successful in keeping his feet on the ground, meant exactly what he said when he wrote in his diary: "It was awful to see the tortures of the afflicted." During the trial of that "rampant hag" Martha Carrier, the afflicted were "so tortured that every one expected their death upon the very spot."

By patching together the sworn testimony of numerous witnesses during the trial of Mary Easty and by making a few minor alterations for the sake of continuity, one can obtain a fairly connected first-hand description of the fits of the Salem children on one occasion at least. At the preliminary hearing in Salem Village during April 1692, five of the afflicted children were "choked in such a most grievous manner" that the examination had to be interrupted, and in spite of the prayers of the Rev. Mr. Hale they remained "almost choked to death." For some now unknown reason Mary Easty was released on May 18. On May 20, Mercy Lewis, a 17 year old servant girl, had a fit in the house of her master, Constable John Putnam.

One man testified:

I went to that house about 9 a clock in the morning and when I came there Mercy Lewis lay on the bed in a sad condition and continued speechless for about an hour. [He then left for a while but came back.] She continued in a sad condition the greatest part of the day being in such tortures as no tongue can express; but not able to speak. But at last she said "Deare Lord Receive my soule" and again said "Lord let them not kill me yett" but at last she came to herself for a little while and was very sensible and then she said that Goody Easty said she would kill her before midnight. . . . Then again presently she felt very bad and cried out "Pray for the salvation of my soule for they will kill me."

Four other men who were in that house between 8 and 11 o'clock that night testified that Elizabeth Hubbard, another 17 year old girl, was brought in while they were there. They found Mercy Lewis "in such a case as if death would have quickly followed . . . being unable to speak most of the day." The two girls then "fell into fits by turns, the one being well whilst the other was ill . . . and [the apparition] vexed and tortured them both by choking and seemingly breathless fits and other fits, threatening Mercy Lewis with a winding sheet & afterwards with a Coffin if said Mercy would not signe the Devil's book. Abundance more of vexations they both received from her [the apparition]."

Still two other men had been at the house that day and found Mercy Lewis in a very Dreadful and Solemn Condition so that Shee could not continue long in this world without a mitigation of those Torments. [They left the house for a while but] Returning the same night aboute midnight, wee found Mercy Lewis in a Dreadful fitt but her reason then Returned Again. She said "What, have you brought me the winding sheet, Goody Easty? Well, I had rather go into the winding sheet than Sett my hand to the Devil's book" but after that her fitts was weaker and weaker but still complaining that Shee was very sick of her stomake. About break of Day She fell asleep but still Continues extreem sick and was taken with a Dreadful fitt just as we left her so that we perceived life in her and that was all.

Another man testified that she was "grievously afflicted and tortured . . . choked allmost to death . . . and we looked for nothing else but present death." Her fit continued well into the next day.

During most of the fit the girl was in a stupor and could not speak; so Ann Putnam (12 years), Abigail Williams (11 years) and Elizabeth Hubbard (17 years) were summoned to the bedside to attempt to identify the apparition that was tormenting Mercy Lewis. The three said that it was the apparition of Goody Easty. Near midnight, when the fit was extra severe, two men rushed out of that haunted house, hastened to Salem for a warrant and then went to Topsfield and dragged Goody Easty out of bed. She was 58 years old and the mother of seven children, yet they took her back to Salem jail and chained her to a cell. She was brought to trial, and, chiefly because of Mercy Lewis' fit and similar evidence, she was convicted and subsequently hanged.

Because of the similarity in the two instances, one could expect that the same historians who have considered the Salem children as "frauds" should have also condemned the Goodwin children as deceitful "pests," they apparently having overlooked the fact that Cotton Mather, like the Salem judges, did consider the possibility of sham but quickly rejected it. Just because some passages in the "Memorable Providences" make it appear as though Martha Goodwin may have had her tongue in her cheek while she was being observed, one can hardly conclude that Cotton Mather's whole account was ludicrous, written in a "style of blind and absurd credulity that cannot be surpassed." That the children's afflictions were attributed to the capital crime of witchcraft is deplorable enough, to say the least, but that is not the point at issue. It is essential to remember that lying was only a symptom and that primarily the children were afflicted with a mental illness. Having studied medicine and probably knowing as much about sickness as any New England physician, Mather deserves a little credit for recognizing that there was at least something unusual about this girl. "But I am resolved after this"

he wrote after observing her for many months, "never to use but one grain of patience with any man that shall go to impose upon me a Denial of Devils, or of Witches. I shall count that man Ignorant who shall suspect, but I shall count him down-right Impudent, if he Assert the Non-Existence of things which we have had such palpable convictions of." (The italics are mine).

It therefore seems reasonable to conclude that not the apparent lying but the "extreme agony of all the afflicted" accounts for the decided convictions of the judges, jury and spectators, many of them educated and reasonable men. In some cases "the tortures and lamentations of the afflicted" convinced even the relatives of the accused, and in the trials of Rebecca Nurse and a few others even the accused themselves, though vehemently denying their own guilt, nevertheless admitted that the children acted as though bewitched. Not unimportant is the fact that more than one trial had to be postponed because the children could not possibly be relieved of their "agony" by binding the accused, by prayer or by any other means. And when their trials were over, at least two convicted witches were unaminously excommunicated from the church, a horrible punishment in Puritan times, especially to one about to die. The possibility that the judges were unfair being laid aside for the moment, would the men and women of the church willingly and unaminously convict their intimate friends, whom they knew to be otherwise honorable, except for this very, very convicing evidence of "stupendous Witchcraft?"

Far more fundamental to a true understanding of the Salem tragedy than the diagnosis of hysteria are the factors at play which could have caused so much hysteria among the children of those days: hence, by far the most interesting feature of Mather's account of the Goodwin children is that every now and then he allows a glimpse of the underlying cause. The following quotation is not an isolated passage lifted from its context merely to prove a point but is representative of many similar passages, and consequently the cause and effect sequence seems more than accidental:

But nothing in the World would so discompose them as a Religious Exercise. If there were any Discourse of God, or Christ, or any of the things which are not seen and are eternal, they would be cast into intolerable Anguishes. Once, those two Worthy Ministers, Mr. Fisk and Mr. Thatcher, bestowing some gracious Counsils on the Boy, whom they then found at a Neighbours house, he immediately lost his Hearing, so that he heard not one word, but just the last word of all they said. Much more, All Praying to God, and Reading of his Word, would occasion a very terrible Vexation to them: They would then stop their own Ears with their own Hands; and roar,

and shriek; and holla, to drown the Voice of Devotion. Yea, if any one in the Room took up a Bible to look into it, tho the Children could see nothing of it, as being in a croud of Spectators, or having their Faces another way, yet would they be in wonderful Miseries, till the Bible was laid aside. In short, No good thing must be endured near those Children, which (while they are themselves) do love every good thing in a measure that proclaims in them the Fear of God . . . .

Devotion was now, as formerly, the terriblest of all the provocations that could be given her [Martha]. I could by no means bring her to own, That she desired the mercies of God, and the prayers of good men. I would have obtained a Sign of such a Desire, by her Lifting up her hand; but she stirr'd it not: I then lifted up her hand my self, and though the standers-by thought a more insignificant thing could not be propounded. I said, "Child, If you desire those things, let your hand fall, when I take mine away." I took my hand away, and hers continued strangely and stifly stretched out, so that for some time, she could not take it down. During these days we had Prayers oftener in our Family than at other times; and this was her usual Behaviour at them. The man that prayed, usually began with Reading the Word of God; which once as he was going to do, she call'd to him, "Read of Mary Magdalen, out of whom the Lord cast seven Devils." During the time of Reading, she would be laid as one fast asleep; but when Prayer was begun, the Devils would still throw her on the Floor, at the feet of him that prayed. There she would lye and Whistle and sing and roar, to drown the voice of the Prayer; but that being a little too audible for Them, they [the devils] would shut close her Mouth and her ears, and yet make such odd noises in her Throat as that she herself could not hear our Cries to God for her. Shee'd also fetch very terrible Blowes with her Fist, and Kicks with her Foot at the man that pray'd; but still (for he had bid that none should hinder her) her Fist and Foot would alwaies recoil, when they came within a few hairs breadths of him just as if Rebounding against a Wall; so that she touch'd him not, but then would beg hard of other people to strike him, and particularly she entreated them to take the Tongs and smite him; Which not being done, she cryed out of him, "He has wounded me in the Head." But before Prayer was out, she would be laid for Dead, wholly senseless and (unless to a severe Trial) Breathless; with her Belly swelled like a Drum, and sometimes with croaking noises in it; thus would she ly, most exactly with the stiffness and posture of one that had been two Days laid out for Dead. Once lying thus, as he that was praying was alluding to the words of the Canaanites, and saying, "Lord, have mercy on a Daughter, vexed with a Devil; there came a big, but low voice from her, saying, "There's Two or

Three of them" (or us) and the standers-by were under the Apprehension, as that they cannot relate whether her mouth mov'd in speaking of it. When Prayer was ended, she would Revive in a minute or two, and continue as Frolicksome as before. . . .

Perhaps I have been bewitched into drawing false conclusions, but it seems clear to me that Martha Goodwin had resorted to hysteria mainly because of religious uncertainties and conflicts; and toward a better understanding why Puritan children felt insecure as they contemplated this world and the world hereafter it is now necessary to say something of the Puritan religion. It should go without saying that no sensible man attempts to ridicule any religion so long as it remains a force for good, but, on the other hand, it is important to examine the probable results of the impact of the Puritan religion on the minds of growing children if one wishes to fathom the disastrous events that took place in Salem.

Long before they attained the age of reason, Puritan children were made to learn the contents of John Cotton's catechism, called "Spiritual Milk for Babes, Drawn out of the Breasts of both Testaments, for their Souls Nourishment." Among the first things they learned were the dreadful consequences of Original Sin. All wickedness, all sufferings and diseases, all catastrophes were only manifestations of God's "Holy Anger" and "Holy Jealousy" because of the fall of Adam and Eve. This doctrine (the sixth question and answer in the catechism) that all children were "conceived in sin and born in iniquity" was later carried to its logical conclusion by the preachers of the early eighteenth century. When the Rev. Jabez Fitch found that over 90 per cent of all the deaths from "throat distemper" occurred among children, that to him was mathematical proof of the "woful Effects of Original Sin." The brilliant theologian Jonathan Edwards stoutly maintained that sinful children were more hateful than vipers because vipers had no souls. Whitfield literally screamed at his audiences that children were worse than rattlesnakes and alligators, which, he said, were also beautiful when small; and Benjamin Wadsworth said that "They're Children of Wrath by Nature, liable to Eternal Vengence, the Unquenchable Flames of Hell. . . . Truly it behooves them most seriously to consider how filthy, guilty, odious, and abominable they are both by Nature and Patience."

There is an illustrative passage in the *Diary of Cotton Mather* dated Nov. 7, 1697:

I took my little [5 year old] daughter, Katy, into my Study, and there I told my child That I am to Dy Shortly and Shee must, when I am Dead, Remember every Thing, that I now said unto her. I sett before her, the

sinful . . . condition of her Nature, and I charged her to pray in secret places every day, . . . I gave her to understand that when I am taken from her, shee must look to meet with more Humbling Afflictions, than she does.

The literature of colonial times abounds in examples of early piety, instances of "joyful deaths" of children who had learned every word of the catechism, for the Puritans were eager to preserve these instances of holiness in order to impress their remaining children. Cotton Mather has left an account of the precocious Elizabeth Butcher, 2½ years old. "As she lay in the Cradle, she would ask herself that Question, What is my corrupt Nature? and would make Answer to herself, It is empty of Grace, bent into Sin, and only to Sin, and that continually." Many more examples of early piety are related by the Rev. John Brown in his account of "remarkable deaths" during the great diptheria epidemic in Haverhill. Epidemics, catastrophes or deaths of playmates seemed to be opportune occasions to impress on children that they were born under the wrath and curse of God. Here is an interview with a dying 7 year old child:

Being ask'd if she was willing to die, and go to Christ; she said, Yes: But Child you know you are a Sinner; she said Yes: And you know where the Wicked go when they die; she said. Yes they are cast into Hell. And Being asked, if she was not afraid of going thither: she said No, for Christ is an all sufficient Savior, and He is able to save me I hope he will: Tho' I have not yet seen Christ, yet I hope I shall see Him.

A while after she said, I am weary of this World, and long to be gone!

The most pitiful, yet most significant, aspect of this gruesome theology was that the children, once convinced that they were dreadful sinners by birth, could do absolutely nothing about it. There was no use in begging for mercy or forgiveness, because every good Puritan firmly believed in predestination. God, even before the creation of the earth, the sun, the moon and the stars, had already determined who were to be saved and who were to be damned, and no one on earth could be certain whether or not he was among the elect. If God was willing, the adults, by constant prayer and good works, might experience a salvation or a flooding of the soul with an irresistible grace, and with this came the joyful feeling that they were among the elect. But this involved a complex mental process that no child could experience, much less enjoy. And so, with the avenue to mental peace left open only to adults, thoughtful children became terribly bewildered. There are no more pitiful passages in all Puritan literature than those in Sewall's diary wherein he related the gloomy religious outlook of his daughter Betty:

It falls to my [7 year old] daughter Elizabeth's share to read the 24. of Isaiah [which concerns the earth's turning upside down and the inhabitants thereof falling into space] which she doth with many tears not being well and the contents of the chapter and sympathy with her draw tears from me also. . . .

When I came in, past 7. at night, my wife met me in the Entry and told me Betty [13 years old] had surprised them. I was surprised with the abruptness of the Relation. It seems Betty Sewall had given some signs of dejection and sorrow; but a little after dinner she burst out in an amazing cry, which caus'd all the family to cry too; Her mother ask'd the reason; she gave none; at last she said she was afraid she should goe to Hell, her Sins were not pardon'd. She was first wounded by my reading a Sermon of Mr. Norton's, about the 5th of Jan. Text of Jno. 7. 34. Ye shall seek me and shall not find me. And those words in the Sermon Jno. 8. 21. Ye shall seek me and shall die in your sins, ran in her mind and terrified her greatly.

At the age of 16 Nathaniel Mather wrote in his diary: "When very young I went astray from God, and my mind was altogether taken with vanities and follies; such as the remembrance of them doth greatly abase my soul within me. Of the manifold sins which then I was guilty of, none so sticks upon me, as that being very young, I was whittling on the sabbath-day; and for fear of being seen, I did it behind the door. A great reproach of God! a specimen of that atheism that I brought into the world with me." When 19 years old, he confessed on his deathbed that the most bitter of all his trials on earth were "the horrible conceptions of God, buzzing about [his] mind."

It is needless to say much about Puritan conceptions of hell except that epidemics and earthquakes seemed to offer opportune moments for the publication of broadsides and sermons containing the most lurid descriptions. Children were taken on walks through cemeteries to see where other smaller children were buried, for a child was "never too little to die, and never too young to go to hell." The classic example of all this is Michael Wigglesworth's oft-quoted 224 stanza poem on "The Day of Doom" (1662), a work which went through numerous editions and was familiar to nearly every Puritan child. In it are depicted the terrors of the damned in terms that might even today send shivers up the spine of the most confirmed atheistic pediatrician. Of some interest are Wigglesworth's ideas of the punishment inflicted on the newly born, or, as he expressed it, on those who went "from the womb unto the tomb." On the fateful Day of Doom those little infants, exceedingly reluctant to be cast into hell because of Adam's sin, put up a strenuous argument:

Not we, but he ate of the tree whose fruit was interdicted: Yet on us all of his sad fall, the punishment's inflicted.

But all cases were predetermined, so the sentence was nevertheless pronounced:

You sinners are, and such a share as sinners may expect,
Such you shall have; for I do save none but my own elect.
Yet to compare your sin with their who lived a longer time,
I do confess yours is much less, though every sin's a crime.
A crime it is, therefore in bliss you may not hope to dwell,
But unto you I shall allow the easiest room in hell.

Enough has been told to show that the average Puritan child, if he paid any attention to the rigid Calvinism of the times, must have had gloomy prospects of life beyond the grave; and there can be little doubt that some of them at least lived in constant, gnawing fear not only of death but of eternal damnation after death. Thus the appearance of hysteria among the children of Salem Village has an adequate explanation, as it has in the numerous other case histories that are known. Preserved in the Puritan literature are many isolated instances of strange diseases among children which sound much like hysteria. Though perhaps not so dramatic, because there were no executions, but just as important are the examples of mass religious hysteria during the frequent revivals, of which the "Great Awakening" in 1740 is the best example. And it is a curious fact that no one ever blames the children for the outbreak of hysteria at Northampton in 1740, yet the children of Salem are held responsible for what was an essentially similar affair. With a knowledge of the religious background of the Salem children it seems rather unimportant to argue whether Cotton Mather was guilty of the witchcraft hangings by influencing the governor, the judges or the mob on Gallows Hill. He was guilty only insofar as he was a Calvinist; but so, indeed, was nearly everybody else.

The history of the Salem witchcraft should be more concerned with the family background and medical history of the afflicted children, for they were victims as well as the persons who were hanged. It was no coincidence that Martha Goodwin, child of devout parents, acquired her hysteria just at the time when "she was in the dark concerning her Souls estate" and the mere sight of the Bible or the catechism always sent her into "hideous convul-

sions." Nor was it very strange that the first cases in Salem Village occurred in the very home of the red-hot Devil-chaser, the Rev.Samuel Parris. "Pray for the salvation of my soule for they will kill me," from the mouth of the bewitched Mercy Lewis, was one of the most significant remarks made during the Salem trials. Those children had ample reason to become hysterical when repeatedly told that the monstrous, invisible, venomous, hissing and sooty Devil was right in their neighborhood ready to devour them; and no doubt many of them were positively convinced that they were actually bewitched.

One is not obliged to accept the verdict of the popular historians that the children were deceitful, wicked, malicious and dishonest. History has been unkind to them along enough. They were not imposters or pests or frauds; they were not cold-blooded malignant brats. They were sick children in the worst sort of mental distress—living in fear for their very lives and the welfare of their immortal souls. Hysteria was only the outward manifestation of their feeble attempts to escape from their insecure, cruel, depressive Salem Village world—a world thoroughly saturated with the pungent fumes of burning brimstone.

Is there a physiological explanation for Salem? LINNDA R. CAPORAEL, a young graduate student in biology at the University of California, Santa Barbara, attributed the bizarre behavior of the residents of the village to a disease that is contracted from contaminated grain. The strange fits and visions they experienced were symptoms of this disease, convulsive ergotism.

If true, Caporael's thesis provides a dramatic scientific explanation to an old mystery, and it has the added appeal of linking Salem to the modern drug culture. It was undoubtedly this dramatic quality that motivated the New York Times to announce in a front page article "Salem Witch Hunts in 1692 Linked to LSD-Like Agent."

### 9. A Biologist Diagnoses Disease

#### **Ergot**

Interest in ergot (*Claviceps purpura*) was generated by epidemics of ergotism that periodically occurred in Europe. Only a few years before the Salem witchcraft trials the first medical scientific report on ergot was made. Denis Dodart reported the relation between ergotized rye and bread poisoning

From Linnda R. Caporael, "Ergotism: The Satan Loosed in Salem?" *Science*, vol. 192 (2 April 1976), pp. 21–26. Copyright © 1976 by the American Association for the Advancement of Science. Reprinted by permission of *Science* magazine and the author. Footnotes omitted.

in a letter to the French Royal Academie des Sciences in 1676. John Ray's mention of ergot in 1677 was the first in English. There is no reference to ergot in the United States before an 1807 letter by Dr. John Stearns recommending powdered ergot sclerotia to a medical colleague as a therapeutic agent in childbirth. Stearns is generally credited with the "discovery" of ergot: certainly his use prompted scientific research on the substance. Until the mid-19th century, however, ergot was not known as a parasitic fungus, but was thought to be sunbaked kernels of grains.

Ergot grows on a large variety of cereal grains—especially rye—in a slightly curved, fusiform shape with sclerotia replacing individual grains on the host plant. The sclerotia contain a large number of potent pharmacologic agents, the ergot alkaloids. One of the most powerful is isoergine (lysergic acid amide). This alkaloid, with 10 percent of the activity of D-LSD (lysergic acid diethylamide), is also found in ololiuqui (morning glory seeds), the ritual hallucinogenic drug used by the Aztecs.

Warm, damp, rainy springs and summers favor ergot infestation. Summer rye is more prone to the development of the sclerotia than winter rye, and one field may be heavily ergotized while the adjacent field is not. The fungus may dangerously parasitize a crop one year and not reappear again for many years. Contamination of the grain may occur in varying concentrations. Modern agriculturalists advise farmers not to feed their cattle grain containing more than one to three sclerotia per thousand kernels of grain, since ergot has deleterious effects on cattle as well as on humans.

Ergotism, or long-term ergot poisoning, was once a common condition resulting from eating contaminated rye bread. In some epidemics it appears that females were more liable to the disease than males. Children and pregnant women are most likely to be affected by the condition, and individual susceptibility varies widely. It takes two years for ergot in powdered form to reach 50 percent deterioration, and the effects are cumulative. There are two types of ergotism—gangrenous and convulsive. As the name implies, gangrenous ergotism is characterized by dry gangrene of the extremities followed by the falling away of the affected portions of the body. The condition occurred in epidemic proportions in the Middle Ages and was known by a number of names, including *ignis sacer*, the holy fire.

Convulsive ergotism is characterized by a number of symptoms. These include crawling sensations in the skin, tingling in the fingers, vertigo, tinnitus aurium, headaches, disturbances in sensation, hallucination, painful muscuilar contractions leading to epileptiform convulsions, vomiting, and diarrhea. The involuntary muscular fibers such as the myocardium and gastric and intestinal muscular coat are stimulated. There are mental disturbances such

as mania, melancholia, psychosis, and delirium. All of these symptoms are alluded to in the Salem witchcraft records.

#### **Evidence for Ergotism in Salem**

It is one thing to suggest convulsive ergot poisoning as an initiating factor in the witchcraft episode, and quite another to generate convicing evidence that it is more than a mere possibility. A jigsaw of details pertinent to growing conditions, the timing of events in Salem, and symptomology must fit together to create a reasonable case. From these details, a picture emerges of a community stricken with an unrecognized physiological disorder affecting their minds as well as their bodies.

1) Growing conditions. The common grass along the Atlantic Coast from Virginia to Newfoundland was and is wild rye, a host plant for ergot. Early colonists were dissatisfied with it as forage for their cattle and reported that it often made the cattle ill with unknown diseases. Presumably, then, ergot grew in the New World before the Puritans arrived. The potential source for infection was already present, regardless of the possibility that it was imported with English rye.

Rye was the most reliable of the Old World grains and by the 1640's it was a well-established New England crop. Spring sowing was the rule: the bitter winters made fall sowing less successful. Seed time for the rye was April and the harvesting took place in August. However, the grain was stored in barns and often waited months before being threshed when the weather turned cold. The timing of Salem events fits this cycle. Threshing probably occurred shortly before Thanksgiving, the only holiday the Puritans observed. The children's symptoms appeared in December 1691. Late the next fall, 1692, the witchcraft crisis ended abruptly and there is no further mention of the girls or anyone else in Salem being afflicted.

To some degree or another all rye was probably infected with ergot. It is a matter of the extent of infection and the period of time over which the ergot is consumed rather than the mere existence of ergot that determines the potential for ergotism. In his 1807 letter written from upstate New York. Stearns advised his medical colleague that, "On examining a granary where rye is stored, you will be able to procure a sufficient quantity [of ergot sclerotia] from among that grain." Agricultural practice had not advanced, even by Stearns's time, to widespread use of methods to clean or eliminate the fungus from the rye crop. In all probability, the infestation of the 1691 summer rye crop was fairly light; not everyone in the village or even in the same families showed symptoms.

Certain climatic conditions, that is, warm, rainy springs and summers, promote heavier than usual fungus infestation. The pattern of the weather in 1691 and 1692 is apparent from brief comments in Samuel Sewall's diary. Early rains and warm weather in the spring progressed to a hot and stormy summer in 1691. There was a drought the next year, 1692, thus no contamination of the grain that year would be expected.

2) Localization. "Rye," continues Stearns "which grows in low, wet ground yields [ergot] in greatest abundance." Now, one of the most notorious of the accusing children in Salem was Thomas Putnam's 12-year-old daughter, Ann. Her mother also displayed symptoms of the affliction and psychological historians have credited the senior Ann with attempting to resolve her own neurotic complaints through her daughter. Two other afflicted girls also lived in the Putnam residence. Putnam had inherited one of the largest landholdings in the village. His father's will indicates that a large measure of the land, which was located in the western sector of Salem Village, consisted of swampy meadows that were valued farmland to the colonists. Accordingly, the Putnam farm, and more broadly, the western acreage of Salem Village, may have been an area of contamination. This contention is further substantiated by the pattern of residence of the accusers, the accused, and the defenders of the accused living within the boundaries of Salem Village. 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. The general pattern of residence, in combination with the well-documented factionalism of the eastern and western sectors, contributed to the progress of the witchcraft crisis.

The initially afflicted girls show a slightly different residence pattern. Careful examination reveals plausible explanations for contamination in six of the eight cases.

Three of the girls, as mentioned above, lived in the Putnam residence. If this were the source of ergotism, their exposure to ergotized grain would be natural. Two afflicted girls, the daughter and niece of Samuel Parris, lived in the parsonage almost exactly in the center of the village. Their exposure to contaminated grain from western land is also explicable. Two-thirds of Parris' salary was paid in provisions; the villagers were taxed proportionately to their landholding. Since Putnam was one of the largest landholders and an avid supporter of Parris in the minister's community disagreements, an ample store of ergotized grain would be anticipated in Parris's larder. Putnam was also Parris's closest neighbor with afflicted children in residence.

The three remaining afflicted girls lived outside the village boundaries to the east. One, Elizabeth Hubbard, was a servant in the home of Dr. Griggs. It

seems plausible that the doctor, like Parris, had Putnam grain, since Griggs was a professional man, not a farmer. As the only doctor in town, he probably had many occasions to treat Ann Putnam, Sr., a woman known to have much ill health. Griggs may have traded his services for provisions or bought food from the Putnams.

Another of the afflicted, Sarah Churchill, was a servant in the house of a well-off farmer. The farm lay along the Wooleston River and may have offered good growing conditions for ergot. It seems probable, however, that Sarah's affliction was a fraud. She did not become involved in the witchcraft persecutions until May, several months after the other girls were afflicted, and she testified in only two cases, the first against her master. One deponent claimed that Sarah later admitted to belying herself and others.

How Mary Warren, a servant in the Proctor household, would gain access to grain contaminated with ergot is something of a mystery. Proctor had a substantial farm to the southeast of Salem and would have had no need to buy or trade for food. Both he and his wife were accused of witchcraft and condemned. None of the Proctor children showed any sign of the affliction; in fact, three were accused and inprisoned. One document offered as evidence against Proctor indicates that Mary stayed overnight in the village. How often she stayed or with whom is unknown.

Mary's role in the trials is particularly curious. She began as an afflicted person, was accused of witchcraft by the other afflicted girls, and then became afflicted again. Two depositions filed against her strongly suggest, however, that at least her first affliction may have been a consequence of ergot poisoning. Four witnesses attested that she believed she had been "distempered" and during the time of her affliction had thought she had seen numerous apparitions. However, when Mary was well again, she could not say that she had seen any specters. Her second affliction may have been the result of intense pressure during her examination for witchcraft crimes.

#### **Ergotism and the Testimony**

The utmost caution is necessary in assessing the physical and mental states of people dead for hundreds of years. Only the sketchiest accounts of their lives remain in public records. In the case of ergot, a substance that affects mental as well as physical states, recognition of the social atmosphere of Salem in early spring 1692 is basic to understanding the directions the crisis took. The Puritans' belief in witchcraft was a totally accepted part of their religious tenets. The malicious workings of Satan and his cohorts were just as real to the early colonists as their belief in God. Yet, the low incidence of

witchcraft trials in New England prior to 1692 suggests that the Puritans did not always resort to accusations of black magic to deal with irreconcilable differences or inexplicable events.

The afflicted girls' behavior seemed to be no secret in early spring. Apparently it was the great consternaton that some villagers felt that induced Mary Sibley to direct the making of the witch cake of rye meal and the urine of the afflicted. This concoction was fed to a dog, ostensibly in the belief that the dog's subsequent behavior would indicate the action of any malefic magic. The fate of the dog is unknown; it is quite plausible that it did have convulsions, indicating to the observers that there was witchcraft involved in the girls' afflictions. Thus, the experiments with the witch cake, rather than any magic tricks by Tituba, initiated succeeding events.

The importance of the witch cake incident has generally been overlooked. Parris's denouncement of his neighbor's action is recorded in his church records. He clearly stated that, until the making of the cake, there was no suspicion of witchcraft and no reports of torturing apparitions. Once a community member had gone "to the Devil for help against the Devil," as Parris put it, the climate for the trials had been established. The afflicted girls, who had made no previous mention of witchcraft, seized upon a cause for their behavior—as did the rest of the community. The girls named three persons as witches and their afflictions thereby became a matter for the legal authorities rather than the medical authorities or the families of the girls.

The trial records indicate numerous interruptions during the proceedings. Outbursts by the afflicted girls describing the activities of invisible specters and "familiars" (agents of the devil in animal form) in the meeting house were common. The girls were often stricken with violent fits that were attributed to torture by apparitions. The spectral evidence of the trials appears to be the hallucinogenic symptoms and perceptual disturbances accompanying ergotism. The convulsions appear to be epileptiform.

Accusations of choking, pinching, pricking with pins, and biting by the specter of the accused formed the standard testimony of the afflicted in almost all the examinations and trials. The choking suggests the involvement of the involuntary muscular fibers that is typical of ergot poisoning; the biting, pinching, and pricking may allude to the crawling and tingling sensations under the skin experienced by ergotism victims. Complaints of vomiting and "bowels almost pulled out" are common in the depositions of the accusers. The physical symptoms of the afflicted and many of the other accusers are those induced by convulsive ergot poisoning.

When examined in the light of a physiological hypothesis, the content of so-called delusional testimony, previously dismissed as imaginary by his-

torians, can be reinterpreted as evidence of ergotism. After being choked and strangled by the apparition of a witch sitting on his chest, John Londer testified that a black thing came through the window and stood before his face. "The body of it looked like a monkey, only the feet were like cock's feet, with claws, and the face somewhat more like a man's than a monkey . . . the thing spoke to me. . ."

Joseph Bayley lived out of town in Newbury. According to Upham, the Bayleys, en route to Boston, probably spent the night at the Thomas Putnam residence. As the Bayleys left the village, they passed the Proctor house and Joseph reported receiving a "very hard blow" on the chest, but no one was near him. He saw the Proctors, who were imprisoned in Boston at the time, but his wife told him that she saw only a "little maid." He received another blow on the chest, so strong that he dismounted from his horse and subsequently saw a woman coming toward him. His wife told him she saw nothing. When he mounted his horse again, he saw only a cow where he had seen the woman. The rest of Bayley's trip was uneventful, but when he returned home, he was "pinched and nipped by something invisible for some time." It is a moot point, of course, what or how much Bayley ate at the Putnams', or that he even really stayed there. Nevertheless, the testimony suggests ergot. Bayley had the crawling sensations in the skin, disturbances in sensations, and muscular contractions symptomatic of ergotism. Apparently his wife had none of the symptoms and Bayley was quite candid in so reporting.

A brief but tantalizing bit of testimony comes from a man who experienced visions that he attributed to the evil eye cast on him by an accused witch. He reported seeing about a dozen "strange things" appear 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. As in Bayley's experience, this man's wife saw nothing. The testimony is strongly reminiscent of the undulating objects and lights reported in experience induced by LSD.

By the time the witchcraft episode ended in the late fall 1692, 20 persons had been executed and at least two had died in prison. All the convictions were obtained on the basis of the controversial spectral evidence. One of the commonly expressed observations about the Salem Village witchcraft episode is that it ended unexpectedly for no apparent reason. No new circumstances to cast spectral evidence in doubt occurred. Increase Mather's sermon on 3 October 1692, which urged more conclusive evidence than invisible apparitions or the test of touch, was just a stronger reiteration of the clergy's

15 June advice to the court. The grounds for dismissing the spectral evidence had been consistently brought up by the accused and many of their defenders throughout the examinations. There had always been a strong undercurrent of opposition to the trials and the most vocal individuals were not always accused. In fact, there was virtually no support in the colonies for the trials, even from Boston, only 15 miles away. The most influential clergymen lent their support guardedly at best; most were opposed. The Salem witchcraft episode was an event localized in both time and space.

How far the ergotized grain may have been distributed is impossible to determine clearly. Salem Village was the source of Salem Town's food supply. It was in the town that the convictions and orders for executions were obtained. Maybe the thought processes of the magistrates, responsible and respected men in the Colony, were altered. In the following years, nearly all of them publicly admitted to errors of judgment. These posttrial documents are as suggestive as the court proceedings.

In 1696, Samuel Sewall made a public acknowledgment of personal guilt because of the unsafe principles the court followed. In a public apology, the 12 jurymen stated, "We confess that we ourselves were not capable to understand nor able to withstand the mysterious delusion of the Powers of Darkness and Prince of the Air . . . [we] do hereby declare that we justly fear that we were sadly deluded and mistaken. . ." John Hale, a minister involved in the trials from the beginning, wrote: "such was the darkness of the day . . . that we walked in the clouds and could not see our way."

Finally, Ann Putnam, Jr., who testified in 21 cases, made a public confession in 1706.

I justly fear I have been instrumental with others though ignorantly and unwittingly, to bring upon myself and this land the guilt of innocent blood; though what was said or done by me against any person I can truly and uprightly say before God and man, I did it not for any anger, malice or ill will to any person for I had no such things against one of them, but what I did was ignorantly, being deluded of Satan.

One Satan in Salem may well have been convulsive ergotism.

## Conclusion

One could reasonably ask whether, if ergot was implicated in Salem, it could have been implicated in other witchcraft incidents. The most cursory examination of Old World witchcraft suggests an affirmative answer. The district of Lorraine suffered outbreaks of both ergotism and witchcraft perse-

cutions throughout the Middle Ages until the 17th century. As late as the 1700's, the clergy of Saxony debated whether convulsive ergotism was symptomatic of disease or demonic possession. Kittredge, an authority on English witchcraft reports what he calls "a typical case" of the 1600's. The malicious magic of Alice Trevisard, an accused witch, backfired and the witness reported that Alice's hands, fingers, and toes "rotted and consumed away." The sickness sounds suspiciously like gangrenous ergotism. Years later, in 1762, one family in a small English village was stricken with gangrenous ergotism. The Royal Society determined the diagnosis. The head of the family, however, attributed the condition to witchcraft because of the suddenness of the calamity.

Of course, there can never be hard proof for the presence of ergot in Salem, but a circumstantial case is demonstrable. The growing conditions and the pattern of agricultural practices fit the timing of the 1692 crisis. The physical manifestations of the condition are apparent from the trial records and contemporaneous documents. While the fact of perceptual distortions may have been generated by ergotism, other psychological and sociological factors are not thereby rendered irrelevant; rather, these factors gave substance and meaning to the symptoms. The content of hallucinations and other perceptual disturbances would have been greatly influenced by the state of mind, mood, and expectations of the individual. Prior to the witch cake episode, there is no clue as to the nature of the girls' hallucinations. Afterward, however, a delusional system, based on witchcraft, was generated to explain the content of the sensory data. Valins and Nisbett, in a discussion of delusional explanations of abnormal sensory data, write, "The intelligence of the particular patient determines the structural coherence and internal consistency of the explanation. The cultural experiences of the patient determine the contentpolitical, religious, or scientific-of the explanation." Without knowledge of ergotism and confronted by convulsions, mental disturbances, and perceptual distortions, the New England Puritans seized upon witchcraft as the best explanation for the phenomena.

Two psychologists at Carleton University, NICHOLAS P. SPANOS (b. 1942) and JACK GOTTLIEB (b.1951), have challenged Linnda Caporael's thesis that ergot poisoning lay at the basis of the witchcraft outbreak. In an article published in Science magazine, Spanos and Gottlieb argue that most of the symptoms of ergotism were not exhibited at Salem. The fact that the fits and visions of the witnesses seemed to start and stop on cue suggests a social, rather than a physiological explanation.

This is an interesting example of how researchers working with the same source material can arrive at strikingly different conclusions. It remains for the reader to decide which of the two interpretations is most persuasive.

# 10. The Disease Diagnosis Disputed

In a recent article in *Science* it was suggested that the residents of Salem Village, Massachusetts, who in 1692 charged some of their neighbors with witchcraft did so because of delusions resulting from convulsive ergotism. The author of the article, L. R.Caporael, argued that (i) the general features of the Salem crisis corresponded to the features of an epidemic of convulsive ergotism, (ii) symptoms manifested by the girls who were the principal accusers were those of ergot poisoning, (iii) the symptoms shown by the other accusing witnesses were also those of convulsive ergotism, and (iv) the abrupt ending of the Salem crisis suggests ergot poisoning. We shall attempt to show that these arguments are not well founded.

## **Features of Convulsive Ergotism Epidemics**

Ergot is a fungus (*Claviceps purpurea*) that under some conditions infests rye and other cereal grains. When ingested the ergotized grain may produce a variety of cardiovascular effects leading, among other things, to gangrene (gangrenous ergotism), or neurological effects leading, among other things, to convulsions (convulsive ergotism). Epidemics of convulsive ergotism have a number of general features that differ substantially from the events that occurred in Salem.

According to Barger, epidemics of convulsive ergotism have occurred almost exclusively in locales where the inhabitants suffered severe vitamin A deficiencies. Ergot poisoning in individuals with adequate vitamin A intakes

leads to gangrenous rather than convulsive symptoms. Vitamin A is found both in fish and in dairy products. Salem Village was a farming community and Salem Town, which bordered the village, was a well-known seaport; cows and fish were plentiful. There is no evidence to suggest a vitamin A deficiency in the diet of the inhabitants, and it would be particularly unlikely for the so-called "afflicted girls," some of whom came from well-to-do farming families. The absence of any instance of gangrenous symptomatology makes it highly unlikely that ergot played any role in the Salem crisis.

Young children are particularly susceptible to convulsive ergotism. Barger states:

All accounts of convulsive ergotism agree that children were more liable to convulsive ergotism than adults; thus 56 percent in the Finnish epidemic were under 10 years of age; 60 percent of Scrinc's cases were under 15 years of age. . .

Only 3 of the 11 afflicted girls in Salem were under 15 years of age and only one of those was under 10. There is no evidence either in the trial records or in eyewitness accounts to indicate a high rate of convulsive symptoms in the young children of Salem Village during the witch crisis. In fact we could find references to only two cases of convulsions in children under ten during the period of the crisis. One of these was the afflicted girl mentioned above. The other was an 8-week-old infant that convulsed before it died. An 8-week-old infant would not yet have been weaned, and nursing infants do not suffer ergot poisoning even if their mothers have a very severe case of the disease; it is therefore unlikely that this infant died from ergotism.

The fact that most of the individuals (including young children) living in the same households as the afflicted girls showed no symptoms is attributed by Caporael to wide individual differences in susceptibility to ergot poisoning. While there are wide individual differences in susceptibility to gangrenous ergotism, convulsive ergotism is another matter. According to Barger it was common for all members of a family to develop symptoms of convulsive ergotism during epidemics. This tendency was so pronounced that convulsive ergotism was long (but erroneously) thought to be infectious.

Convulsive ergotism characteristically produces the following symptoms: (i) vomiting, (ii) diarrhea, (iii) a livid skin color, (iv) sensations of heat and cold in the extremities, (v) spastic muscular contractions in the extremities, which in severe cases may become permanent sequelae, (vi) severe itching and tingling sensations, (vii) convulsions, (viii) a ravenous appetite following convulsions, (ix) death in severe cases. Permanent dementia may also be a symptom in severe cases. Perceptual disturbances may occur, but such

From Nicholas P. Spanos and Jack Gottlieb, "Ergotism and the Salem Village Witch Trials," *Science*, vol. 194 (24 December 1976), pp. 1390–1394. Copyright © 1976 by the American Association for the Advancement of Science. Reprinted by permission of *Science* magazine and the authors. Footnotes omitted.

disturbances would not be expected to occur independently of the other symptoms.

Caporael says that "complaints of vomiting and 'bowels almost pulled out' are common in the depositions of the accusers." This statement is incorrect. Records of Salem Witchcraft (RSW) contains 117 depositions by the afflicted girls and 79 depositions in which other witnesses describe the behaviour of the girls. There are also eyewitness accounts by Mather, Lawson, Brattle, and Hale which are not contained in RSW. We examined all these sources and were unable to find any reference to the occurrence of vomiting or diarrhea among the afflicted girls. In all these sources we found only three instances of gastrointestinal complaints among the girls. In one of these cases the girl making the complaint (Mary Warren) lived outside the area that Caporael suggested was exposed to ergot. Thus 8 of the 11 afflicted girls did not report any gastrointestinal symptoms. Those who did reported only a single instance. None of them reported vomiting or was observed to vomit, and there is no indication that any of them suffered from diarrhea.

We found no indication in any of the works examined that the afflicted girls manifested a livid color of the skin. We found no reference to cold sensations in the extremities, and only two references to burning sensations. In one of those cases an afflicted girl slowly reached out and touched the hood of an accused witch, then immediately pulled back her hand and "cried out, her fingers, her fingers burned." In the second case the judges had obtained a rag puppet which they believed had been used by a witch to afflict people at a distance. They burned the puppet in the presence of the afflicted girls with the following results: "A bit of one of the rags being set on fire (the afflicted) cried out dreadfully (that they were burned)." Rather than ergot poisoning, these descriptions suggest that the afflicted girls were enacting the roles that would sustain their definition of themselves as bewitched and that would lead to the conviction of the accused.

According to Caporael, the afflicted girls' convulsions "appear to be epileptiform" and their reports of being bitten, pinched, and pricked by specters "may allude to the crawling and tingling sensations under the skin experienced by ergotism victims." There is no question that the girls frequently convulsed and reported being bitten and pinched. However, a careful look at the social context in which these symptoms were typically manifested belies the notion that they resulted from an internal disease process. The trial testimony indicates very clearly that the girls convulsed and reported being bitten and pinched when an accused person's behavior provided them with a social cue for such acts.

For example, when one of the accused was ordered to look at an afflicted

girl, "he looked back and knocked down all (or most) of the afflicted who stood behind him." In another case, "As soon as she [the accused witch] came near all [the afflicted] fell into fits." The courtroom testimony contains a great many instances of the afflicted girls' convulsing en masse when the accused entered the room, looked in their direction, moved his chair, and so on. The afflicted girls' reports of being pinched, choked, and bitten are described thus by Lawson, an eyewitness:

It was observed several times, that if she [the accused witch] did but bite her underlip in time of examination the persons afflicted were bitten on their arms and wrists and produced the marks before the magistrates, ministers and others.

The afflicted also produced the pins with which the accused purportedly pinched them.

The afflicted girls were responsive to social cues from each other as well as from the accused and were therefore able to predict the occurrence of each other's fits. In such cases one of the girls would cry out that she saw the specter of an accused witch about to attack another of the afflicted. The other girl would then immediately fall into a fit. Termination of the girls' convulsions was also cued by social-psychological factors. In some cases convulsions would cease when a certain Biblical passage was read. More commonly the girl's convulsions would cease as soon as they were touched by the accused.

Convulsions at the sight of a witch, alleviation of convulsions by the witch's touch, prediction of their own and others' convulsions, and production by the afflicted of bite marks and the pins used to pinch them were all considered standard symptoms in 16th and 17th century cases of demonic possession. Taken together, these facts indicate that the afflicted girls were enacting the role of demoniacs as that role was commonly understood in their day.

Caporael points out that one ergot alkaloid, isoergine (lysergic acid amide), has 10 percent of the activity of LSD and might therefore produce perceptual disturbances. She remarks that "the spectral evidence of the trials appears to be hallucinogenic symptoms and perceptual disturbances accompanying ergotism." The term "hallucination" is, unfortunately, very unspecific, and in the psychological literature is used to refer to a wide variety of distinct experiences. Although LSD is commonly referred to as a hallucinogen, Barber has correctly pointed out that "subjects who have ingested [LSD] very rarely report, when their eyes are open, that they perceive formed persons or objects which they believe are actually out there." Instead, they tend to report perceptual distortion such as persistent after-images, rainbow-

like colors, halos on the edges of objects, changes in depth perception, contours that appear to undulate, and the like. None of the testimony given by the afflicted girls indicates perceptual distortions of that kind. Instead, they reported seeing "formed persons"—the specters of the accused—attacking, biting, pinching, and choking them and others.

As to the remaining symptoms of ergot poisoning, none of the work we studied indicates that the girls experienced ravenous appetites after their convulsions, suffered permanent contractures of the hands or feet or other signs of permanent neurological damage, suffered permanent dementia, or died. It should be noted that the girls often appeared to be quite healthy outside the courtroom. Even in the courtroom they did not exhibit the signs of chronic malaise and debilitation that might be expected after months of chronic poisoning. Thus, Brattle wrote:

Many of these afflicted persons, who have scores of strange fits in a day, yet in the intervals of time are hale and hearty, robust and lusty, as tho' nothing had afflicted them. I remember that when the chief Judge gave the first Jury their charge, he told them, that they were not to mind whether the bodies of the said afflicted were really pined and consumed, as was expressed in the indictment; but whether the said afflicted did not suffer from the accused such afflictions as naturally tended to their being pined and consumed, wasted etc.

In summary, while the afflicted girls exhibited rather dramatic behavior, none of them displayed the syndrome of convulsive ergotism. Instead, they showed symptoms of "demonic possession," a phenomenon that was fairly common among 16th- and 17th-century Puritans in both England and Colonial

It is worth noting that the initial symptoms of the afflicted girls were rather ambiguous, and that they began to correspond more closely to popular stereotypes of demonic behavior as the girls gained increasing exposure to information about those stereotypes. The initial symptoms included "getting into holes, and creeping under chairs and stools, and [using] sundry odd postures and antic gestures, uttering foolish and ridiculous speeches." About 2 weeks after these symptoms began a neighbor had a "witch cake" baked in order to determine whether the girls were bewitched. Only after this event did the girls begin convulsing and reporting the specters of witches. As the witchcraft trials progressed, the girls added to the repertoire. They collapsed en masse when looked at by the accused during the first trial. During the fourth examination they began complaining of being bitten whenever they observed the accused nervously bite her lip and of being pinched when she moved her

hand. In later examinations they began to mimic the accused; they held their heads in the same position as that of the accused and rolled their eyes up after the accused did so. This temporal pattern suggests that the demonic manifestations were learned, that the girls' behavior was gradually (although perhaps unwittingly) shaped to fit the expectations for demonic behavior held by the community.

In Caporael's view, there is a "major difficulty in accepting the explanation of purposeful fraud . . . [namely] the gravity of the girls' symptoms." The implication of this statement is that the girls' performances somehow transcended the volitional capacities of normal, physically healthy people. Therefore it should be pointed out that numerous 16th-century English demoniacs who displayed all the symptoms manifested by the Salem girls later confessed that they had faked these displays. They confirmed their confessions by publicly enacting all of their supposedly involuntary symptoms. These facts certainly do not prove that the performances of the Salem girls consisted entirely of conscious faking, but they do indicate that the girls' behavior can be accounted for without recourse to explanations based on unusual diseases.

## Symptoms of Other Witnesses

Twenty-nine of the accused witches lived in or on the fringes of Salem Village or had moved from the village within a few years of the crisis. Boyer and Nissenbaum have pointed out that most of the accused lived in one half of the village and most of the witnesses who testified against them lived in the other half. They hypothesize that this geographical split in the pattern of accusations was to a large extent a function of political and social factionalism within the village. Caporael postulates that the accusing witnesses were exposed to ergot poisoning by their location while the accused were not exposed by theirs. She suggests that not only the girls but "many of the other accusers" had physical symptoms such as are "induced by convulsive ergot poisoning."

Records of Salem Witchcraft contains 111 depositions made by 80 different witnesses (not including the afflicted girls) against the 29 accused village residents. Trial records compiled by Boyer and Nissenbaum include a deposition made by one of these witnesses that is not included in RSW. We examined these 112 depositions looking for behavior that, even in a broad sense, might possibly represent symptoms of convulsive ergotism. These symptoms, and the number of individuals who suffered from them, are shown in Table 1. Witnesses were excluded from this table if they reported that their symptoms occurred a year or more before the Salem crisis began (five cases),

Table 1. Symptoms of witnesses (other than the afflicted girls) who testified against the accused witches. A, vomiting. B, diarrhea. C, livid skin. D, permanent contractures. E, pain in extremities. F, death. G, temporary muscle stiffness. H, convulsions. I, ravenous appetite. J, perceptual disturbances (not including apparitions). K, apparitions. L, sensations of hot and cold. M, skin sensations (biting and pinching). N, stomach pain. O, choking sensations. P, temporary inability to speak. L, symptom renorded. O, symptom cold.

reported sufferers	A	В	C	D	Ш	Ľ	Ŋ	Н	-	-	×	٦	Σ	z	C	۵	Total
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J. Futnam	0	0	0	0	0	0	0	ć	0	C		· C	· -	0	> <	> <	
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or while they were out of Salem and therefore not exposed to the supposedly ergotized grain (one case), or for some other reason could not have been exposed to ergot (one case—that of the 8-week-old infant referred to earlier). One of these excluded witnesses, John Londer, gave a colorful account of seeing a "thing" with a monkey's face and cock's feet. Caporael specifically cites this testimony as a probable example of ergot poisoning despite the fact that Londer stated explicitly that he had experienced the apparition 7 or 8 years before the outbreak of the Salem crisis.

The first fact uncovered by our examination was that 78 percent of the witnesses did not report suffering even a single symptom; only 18 reported suffering one or more symptoms after the ergotism is hypothesized to have begun. Most of the testimony consisted of observation made on the afflicted girls or other factual information (such as that the witness's cow died three days after the accused passed by his barn). Three witnesses testified about the death of one man and several testified about symptoms of three other individuals. Altogether, the testimony examined contained symptoms for 21 individuals other than the afflicted girls.

The first thing to note about Table 1 is that none of the witnesses reported a pattern of symptoms characteristic of convulsive ergotism. There is no evidence that any of them suffered vomiting, diarrhea, a livid skin color, permanent contractures of the extremities, a ravenous appetite, or perceptual disturbances (other than apparitions). In 10 of the 21 cases only a single symptom was reported. G. Cory reported a short-lived inability to say his prayers, and W. Putnam mimicked the gestures of one of the accused (he clenched his fist when she clenched hers and held his head in the same position as she did hers). These are obviously not cases of ergotism. In a third case, J. Putnam suffered briefly from "strange fits." The timing of these fits makes ergot an unlikely possibility. Caporael reasons that the village was exposed to ergotized rye by December 1691. Putnam reported having his fits in April 1692. It is unlikely that he would have been so late in succumbing to its effects.

In a fourth monosymptomatic case two of the afflicted girls testified that J. Holton was "tormented" by specters and that while they observed him the specters left him and began attacking them instead. Holton testified that he was immediately cured as soon as the girls reported that the specters had left him to attack them. Such an immediate alleviation of symptoms is obviously not characteristic of ergot poisoning.

In the other six monosymptomatic cases the witnesses each reported an apparition. These individuals all stated that on one or more occasions they saw a specter of some sort, usually the vivid image of an accused witch, a dead

person, or an animal. All indicated belief that these imaginings were real events rather than dreams (some occurred while they were in bed) or flights of fancy. However, none of these witnesses also reported perceptual disturbances (such as halos around objects). As was pointed out above, apparition or perceptual distortions in the absence of other symptoms are not characteristic of ergot poisoning. The apparition described by these five witnesses were very similar to appartitions that five other witnesses (not included in Table 1) said they had experienced several years before the hypothesized outbreak of ergotism.

The remaining 11 witnesses in Table 1 each exhibited more than one symptom. In two of these cases (Bittford and Gould) the witnesses' experiences consisted primarily of what were probably dreams of hypnagogic experiences. Both men reported being in bed at night when they saw apparitions of accused witches. Bittford testified that his experience was accompanied by a stiffness in his neck that lasted several days, and Gould said that he was pinched twice on his side. Gould also reported a second apparition, which was followed by a pain in his foot lasting 2 or 3 days.

Daniel Wilkins died after an illness that lasted about 2 weeks. The only symptom reported about his illness was that he appeared to be choking shortly before he died, and this was reported only after the afflicted girls testified that they saw specters choking him. Wilkins did not show any sign of illness before the beginning of May 1692. For ergot to explain these events he would have had to be eating poisoned rye for 4 months without exhibiting any symptoms and then suddenly to have fallen ill and died in 2 weeks—a highly improbable occurrence.

Several symptoms are recorded for Wilkins's sister Rebecca, but she had not exhibited any of them until after a physician had diagnosed her brother's illness as preternatural and after the afflicted girls had reported seeing specters attack his body.

Another brother, S. Wilkins, reported an array of symptoms which included a pain in his hand, specters of a witch and of a black hat, falling off his horse, and a strong urge to run. None of them were experienced before June 1692.

Four persons, J. Doritch, J. Indian, T. Indian, and Mrs. Pope, displayed symptoms during the trials similar to those displayed by the afflicted girls. All convulsed and reported seeing specters that afflicted them or others. Mrs. Pope convulsed whenever an afflicted girl "saw" her about to be attacked by specters, and J. Indian's convulsions could be terminated by the touch of a witch. On one occasion Mrs. Pope also reported pain in her stomach whenever an accused witch "did but lean her Breast against the Seat." T. Indian

eventually confessed that she had reported apparitions and enacted other symptoms because her master had beaten her and otherwise threatened her until she agreed to do so.

E. Keysar is the only witness in all the Salem records whose testimony includes symptoms even vaguely resembling the perceptual distortions associated with LSD. Keysar reported that, while in a darkened room, he saw "strange things" that quivered. This was immediately followed by seeing a quivering hand in his fireplace. Testimony of this type may be associated with acute anxiety and a host of other factors as well as with hallucinogenic substances. There are at least three reasons to infer that Keysar's experience was due to anxiety and expectation rather than to ergot: (i) he reported no other symptoms, (ii) the experience occurred in May 1692, five months after the time he would have begun ingesting ergot, and (iii) earlier that same day he had been severely frightened because he believed that an accused witch "did steadfastly fix [his] eyes upon me."

The final case, and the only one to exhibit as many as four of the symptoms listed in Table 1, is that of J. Bayley, who as Caporael points out did not live in Salem Village. He and his wife had spent one evening there and left the next day. On their way out of the village they passed the house of a man and wife accused of witchcraft. Bayley reported that at this point he felt a blow to his chest and a pain in his stomach. He also thought he saw the accused witches (who were jailed at the time) near the house and then became speechless for a brief period of time. Shortly thereafter he experienced another blow to the chest and thought he saw a women in the distance. When he looked again he saw a cow rather than a woman. After arriving at his home he reported feeling pinched and bitten by something invisible. His wife experienced no symptoms. Caporael says Bayley's testimony "suggests ergot." It seems far more plausible, however, that being a fervent believer in witchcraft he experienced an upsurge of anxiety as he approached the house of two convicted witches than that he ingested ergot during his stay in the village and by coincidence experienced the first symptoms of his poisoning as he happened to pass the witches' house.

Thus, the testimony of the witnesses who testified against the Salem Village witches does not support the ergot poisoning hypothesis. On the contrary, it tends to disconfirm it.

#### The End of the Salem Crisis

Caporael says that "the Salem witchcraft episode was an event localized in both time and space." The implication of this statement is that the episode

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was confined to the geographical area hypothesized to be afflicted by ergotized grain. However, by midsummer of 1692 individuals were being accused of witchcraft not only in Salem but also in the neighboring towns of Amesbury, Andover, Beverly, Billerica, Boxford, Charlestown, Gloucester, Ipswich, Salisbury, and Topsfield. The Salem crisis even spurred on witch accusations in Connecticut. No one has proposed that the spreading panic resulted from a concurrent spread of ergotized rye. It is therefore worth noting that the witnesses from neighboring towns who testified against their own local witches provided the same kinds of spectral testimony that are found in the Salem records. Andover even produced its own afflicted girl.

Caporael cites a "commonly expressed observation" that the Salem witch hunt, after escalating through the summer of 1692, ended abruptly "for no apparent reason." Her own view is, apparently, that it ended abruptly because the village was no longer exposed to ergotized rye. She points out that, after the crisis had passed, some of the magistrates and jurymen experienced deep remorse and had difficulty comprehending their own behavior. She suggests that ergot may have altered their thought processes during the crisis and after they regained their senses they could not understand what had happened to them.

It is important to point out that abrupt endings to large-scale panics about witchery were the rule rather than the exception. Midelfort, who has studied the many large-scale witch crises that occurred in 16th-century Germany describes the process. These crises commonly began with accusations against socially deviant and lower-class individuals. Accusations escalated quickly, and more and more prominent individuals who did not fit the popular social stereotype of a witch were accused. Inevitably, many people, including some of the prosecuting judges, became increasingly skeptical of the validity of the judicial procedures and the spectral evidence, and persons of standing took steps to bring the persecutions to an abrupt end. These crises were often followed by remorse and second thoughts on the part of some magistrates and other officials. The course of the Salem crisis was the same as that of the

In summary: The available evidence does not support the hypothesis that ergot poisoning played a role in the Salem crisis. The general features of the crisis did not resemble an ergotism epidemic. The symptoms of the afflicted girls and of the other witnesses were not those of convulsive ergotism. And the abrupt ending of the crisis, and the remorse and second thoughts of those who judged and testified against the accused, can be explained without recourse to the ergotism hypothesis.

# The Responsibility of the Puritans

The word "Puritanism" has often served as a handy explanation for whatever is repressive and joyless in American life. It is not surprising then that Puritanism has been assigned much of the blame for the persecution of the witches. At the height of the Watergate scandal of the 1970s, a congressman warned that the impeachment process could turn legislators into "a set of Cotton Mathers, engaging in witch hunts, setting extraordinarily high standards for other people, though not always for themselves."

But do Cotton Mather and his fellow Puritans deserve to be singled out for blame? For if they were responsible for the witch-craze, then how can one explain the persecution of witches that took place in non-Puritan societies, such as Anglican England and Catholic France? GEORGE LYMAN KITTREDGE (1860–1941), in the early years of the twentieth century, used this line of reasoning to defend the Puritans. By examining the witch-beliefs of Europe, Kittredge tried to prove that Salem was "a very small incident in the history of a terrible superstition."

In the essay that follows, Kittredge refers to the Puritans as "our fathers." And in fact, Kittredge was a direct descendent of the first settlers of Massachusetts. To what extent did the author's desire to defend his ancestors' reputation influence his thinking?

# 11. A Small Chapter in an Old Superstition

The darkest page of New England history is, by common consent, that which is inscribed with the words Salem Witchcraft. The hand of the apologist trembles as it turns the leaf. The reactionary writer who prefers iconoclasm to hero-worship sharpens his pen and pours fresh gall into his inkpot when he comes to this sinister subject. Let us try to consider the matter, for a few minutes, unemotionally, and to that end let us pass in review a number of facts which may help us to look at the Witchcraft Delusion of 1692 in its due proportions—not as an abnormal outbreak of fanaticism, not as an isolated

From George Lyman Kittredge, "Notes on Witchcraft," *Proceedings of the American Antiquarian Society*, vol. XVIII (April 1907), pp. 148–212. Reprinted with the permission of the American Antiquarian Society. Footnotes omitted.

First, the Indian Powawes, used all their Sorceries to molest the first Planters here; but God said unto them, Touch them not! Then Seducing spirits came to root in this Vineyard, but God so rated them off, that they have not prevail'd much farther than the edges of our Land. After this, we have had a continual blast upon some of our principal Grain, annually diminishing a vast part of our ordinary Food. Herewithal, wasting Sicknesses, especially Burning and Mortal Agues, have Shot the Arrows of Death in at our Windows. Next, we have had many Adversaries of our own Language, who have been perpetually assaying to deprive us of those English Liberties, in the encouragement whereof these Territories have been settled. As if this had not been enough; the Tawnies among whom we came have watered our Soil with the Blood of many Hundreds of Inhabitants. . . . Besides all which, now at last the Devils are (if I may so speak) in Person come down upon us with such a Wrath, as is justly much, and will quickly be more, the Astonishment of the World.

And this last adventure of the Devil has a quality all its own.

Wherefore the Devil is now making one Attempt more upon us; an Attempt more Difficult, more Surprising, more snarl'd with unintelligible Circumstances than any that we have hitherto Encountered. . . . An Army of Devils is horribly broke in upon the place which is the center, and after a sort, the First-born of our English Settlements: and the Houses of the Good People there are fill'd with the doleful shrieks of their Children and Servants, Tormented by Invisible Hands, with Tortures altogether preternatural.

The witchcraft hysteria occupied but a brief moment in the history of the Bay. The first actors to take part in it were a group of excited girls and a few of the less savory figures who drifted around the edges of the community, but the speed with which the other people of the Bay gathered to witness the encounter and accept an active role in it, not to mention the quality of the other persons who were eventually drawn into this vortex of activity, serves as an index to the gravity of the issues involved. For a few years, at least, the settlers of Massachusetts were alone in the world, bewildered by the loss of their old destiny but not yet aware of their new one, and during this fateful interval they tried to discover some image of themselves by listening to a chorus of voices which whispered to them from the depths of an invisible wilderness.

Two historians at the University of Massachusetts, PAUL BOYER (b.1935) and STEPHEN NISSENBAUM (b. 1941), have also brought a new perspective to the study of witchcraft at Salem. Unlike most earlier historians, they are more concerned with the history of the community in the decades that preceded 1692 than with the events of that year.

According to Boyer and Nissenbaum, Salem Village by 1692 was primed for an explosion between two bitterly opposed groups: the supporters and the opponents of Village families. The Putnams led the pro-Parris faction while the Porters led the dissenters. And behind this hostility between two families was a more fundamental division between two opposing ways of life. The social order of Salem Village, traditionally agrarian and devout, was being threatened by the commercial and secular influences of the neighboring seaport, Salem Town. When the crisis over witchcraft occurred it followed these same fault lines. The accusers, who came from the into accusations of witchcraft. Boyer and Nissenbaum argue that this conflict aftested the lives of individuals on both sides of the Ipswich Road, the thoroughfare that separated Salem Village from Salem Town. Taken from their book Salem Possessed, the brief excerpt that follows sums up the authors' conclusions.

# 15. A Clash of Two Worlds

What we have been attempting through all the preceding chapters is to convey something of the deeper historical resonances of our story while still respecting its uniqueness. We see no real conflict between these two purposes. To be sure, no other community was precisely like Salem Village, and no other men were exactly like embittered Samuel Parris, cool and ambitious Israel Porter, or Thomas Putnam, Jr., grimly watching the steady diminution of his worldly estate.\*

This irreducible particularity, these intensely personal aspirations and private fears, fairly leap from the documents these Salem Villagers, and others, left behind them. And had we been able to learn to know them better—heard the timbre of their voices, watched the play of emotion across their faces, observed even a few of those countless moments in their lives which went unrecorded—we might have been able to apprehend with even greater force the pungent flavor of their individuality.

From Paul Boyer and Stephen Nissenbaum, Salem Possessed: the Social Origins of Witch-craft (Cambridge, Mass.: Harvard University Press, 1974). Reprinted by permission of the Harvard University Press. Copyright © 1974 by the President and Fellows of Harvard College.

<sup>\*</sup>Editor's note: Israel Porter was a well-to-do leader of the faction that opposed Rev. Samuel Parris. Thomas Putnam, Jr., was a leader of the faction supporting the minister.

But the more we have come to know these men for something like what they really were, the more we have also come to realize how profoundly they were shaped by the times in which they lived. For if they were unlike any other men, so was their world unlike any other world before or since; and they shared that world with other people living in other places. Parris and Putnam and the rest were, after all, not only Salem Villagers: they were also men of the seventeenth century; they were New Englanders; and, finally, they were Puritans.

If the large concepts with which historians conventionally deal are to have any meaning, it is only as they can be made manifest in individual cases like these. The problems which confronted Salem Village in fact encompassed some of the central issues of New England society in the late seventeenth century: the resistance of back-country farmers to the pressures of commercial capitalism and the social style that accompanied it; the breaking away of outlying areas from parent towns; difficulties between ministers and their congregations; the crowding of third-generation sons from family lands; the shifting locus of authority within individual communities and society as a whole; the very quality of life in an unsettled age. But for men like Samuel Parris and Thomas Putnam, Jr., these issues were not abstractions. They emerged as upsetting personal encounters with people like Israel Porter and Daniel Andrew, and as unfavorable decisions handed down in places like Boston and Salem Town.\*

It was in 1692 that these men for the first time attempted (just as we are attempting in this book) to piece together the shards of their experience, to shape their malaise into some broader theoretical pattern, and to comprehend the full dimensions of those forces which they vaguely sensed were shaping their private destinies. Oddly enough, it has been through our sense of "collaborating" with Parris and the Putnams in their effort to delineate the larger contours of their world, and our sympathy, at least on the level of metaphor, with certain of their perceptions, that we have come to feel a curious bond with the "witch hunters" of 1692.

But one advantage we as outsiders have had over the people of Salem Village is that we can afford to recognize the degree to which the menace they were fighting off had taken root within each of them almost as deeply as it had in Salem Town or along the Ispwich Road. It is at this level, indeed, that we have most clearly come to recognize the implications of their travail for our understanding of what might be called the Puritan temper during that final,

often intense, and occasionally lurid efflorescence which signaled the end of its century-long history. For Samuel Parris and Thomas Putnam, Jr., were part of a vast company, on both sides of the Atlantic, who were trying to expunge the lure of a new order from their own souls by doing battle with it in the real world. While this company of Puritans were not the purveyors of the spirit of capitalism that historians once made them out to be, neither were they simple peasants clinging blindly to the imagined security of a receding medieval culture. What seems above all to characterize them, and even to help define their identity as "Puritans," is the precarious way in which they managed to inhabit both these worlds at once.

The inner tensions that shaped the Puritan temper were inherent in it from the very start, but rarely did they emerge with such raw force as in 1692, in little Salem Village. For here was a community in which these tensions were exacerbated by a tangle of external circumstances: a community so situated geographically that its inhabitants experienced two different economic systems, two different ways of life, at unavoidably close range; and so structured politically that it was next to impossible to locate, either within the Village or outside it, a dependable and unambiguous center of authority which might hold in check the effects of these accidents of geography.

The spark which finally set off this volatile mix came with the unlikely convergence of a set of chance factors in the early 1690's: the arrival of a new minister who brought with him a slave acquainted with West Indian voodoo lore; the heightened interest throughout New England in fortune telling and the occult, taken up in Salem Village by an intense group of adolescent girls related by blood and faction to the master of that slave; the coming-of-age of Joseph Putnam, who bore the name of one of Salem Village's two controlling families while owing his allegiance to the other; the political and legal developments in Boston and London which hamstrung provincial authorities for several crucial months early in 1692.

But beyond these proximate causes lie the deeper and more inexorable ones we have already discussed. For in the witchcraft outburst of Salem Village, perhaps the most exceptional event in American colonial history, certainly the most bizarre, one finds laid bare the central concerns of the era.

<sup>\*</sup>Editor's note: Daniel Andrew, who was associated with the anti-Parris faction, was accused of witchcraft in 1692.

# A Feminist View

This book has shown how the study of Salem witchcraft has been influenced by what goes on in the outside world. The tools and insights of biology, psychology, sociology, and anthropology have all been employed to explain the events of 1692. So it is not surprising that someone has now taken a look at Salem from the perspective of the relatively new field of women's studies.

CAROL F. KARLSEN (b. 1940), a professor of history at the University of Michigan, observes that "the history of witchcraft is primarily a history of women," and in her 1987 book The Devil in the Shape of a Woman, she shows that the way Puritan society treated witches tells us a great deal about the position of women within that society.

Karlsen finds that the New England witches seemed to embody the characteristics that women were not supposed to exhibit: they were "discontented, angry, envious, malicious, seductive, lying, and proud women." Says Karlsen, "Most witches did express dissatisfaction, however indirectly, with the power arrangements of their society, and doing so they raised the spectre of witchcraft, or female rebellion against God and man." Thus society had to move to cast them out, if necessary by killing them.

The following excerpt shows how the witches posed a sexual threat to the established Puritan order. Note that in her analysis, Karlsen includes cases of witchcraft that occurred prior to the Salem outbreak.

Karlsen has opened up a valuable new perspective on the witch trials. But in one sense, is she going back to the old search for someone to blame—in this case the patriarchal New England Puritans who, in Karlsen's interpretation, were lashing out at women who posed a threat to male domination?

## 16. Witches as Sexual Threat

The witch's power to avenge her discontent by inflicting harm upon her neighbors was intimately connected, in the perception of New Englanders, to her more general powers to disrupt the social and natural order. These more general powers carried an implicit sexual content, often made explicit in the specific behaviors attributed to witches and the language of these allegations.

Of witches' many sins, the most clearly sexual was the sin of seduction.

For Puritans, seduction was "improving of [one's] wit to draw others into sin, to study devices, and lay snares to entrap their souls withal." As this definition suggests, witches were all deemed guilty of this sin because they attempted to entice people away from their worship of God to the worship of the Devil. Indeed, the destruction of their neighbors' souls was yet another form of witches' malice.

In descriptions of witches' attempts to lead others into sin, Puritan ministers focused most frequently on cases of possession—the most visible sign that witches were working to increase their numbers. During the initial stages of possession, the clergy argued, witches enticed their victims with material rewards, spouses, relief from labor, and so forth. (Only after seductive methods failed did they begin to employ their powers of torture.) For reasons never explained, witches who supposedly recruited others into the Devil's service focused their attention on other women. Eighty-six percent of possession cases on record in colonial New England are female. When Massachusetts magistrates banished Mary Tilton "for having like a sorceress gone from door to door to lure and seduce people, yea even young girls, to join the Quakers," or when they tried Eunice Cole for "enticing Ann Smith to come to live with her," they were only expressing less obliquely what ministers implied in their sermons and published works: witches were most dangerous as seducers of other females, and they were especially given to working on the young. More than half of the New England possessed were under twenty.

Possession behavior, as scholars have noted, contains elements that suggest repressed erotic impulses. But the erotic power witches were thought to wield over possessed females was only rarely explicit during possession; when openly mentioned, it was not the witch but the Devil himself who seduced female bodies and promised to satisfy women's carnal desires. Witches' attempts to seduce women and girls tended to be described as the seduction of souls.

An erotic dimension, however, was often implicit in witches' seduction of other females. Descriptions of witches successful in luring women into their ranks sometimes implied that they accomplished this end by appealing to other women's licentiousness. In trying to account for Anne Hutchinson's appeal to the "Femall Sex," one Puritan writer described her followers as "silly Women laden with diverse lusts." Referring to Hutchinson as an "American Jesabel" and associating her with "Harlots" and religious groups rumored to be unchaste, John Winthrop and Thomas Weld also insinuated that she was seducing more than souls. Clergyman John Cotton was more direct about the implications of Hutchinson's seductive powers. "That filthie sinne of the Comunitie of Woemen," he told her publicly, "and all promis-

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cuus and filthie cominge togeather of men and Woemen without Distinction or Relation of Marriage, will necessarily follow." Hutchinson's enemies were evidently convinced that women led astray by her would eventually be adulterous.

Witches were also described as seducers of men, but this sin took a very different form from witches' seduction of other women. Witches lured women through the process of possession, but New England males were seldom described as possessed. The few cases of male possession—almost all of which occurred during the Salem outbreak—were largely ignored. When men confessed to becoming witches, they almost always implied that they had bypassed women in the process, claiming that the Devil himself was responsible for their enticement. Thus we find little direct evidence for men of the kind of seduction most often and most directly attributed to witches—that of leading others into deliberate alliances with Satan.

For men, the closest parallel to being possessed was being bewitched in the night. Coming into their bedrooms uninvited, witches were said to attack men while they slept. Although men rarely referred to these nocturnal visits as sexual aggression on the part of witches, those who left detailed descriptions of these attacks suggested precisely that. Bernard Peach, for instance, claimed as evidence of Susanna Martin's witchcraft that

being in bed on a lords day night he heard a [scratching] at the window. He this deponent saw susana martin . . . com in at the window and jumpt downe upon the flower. Shee was in her hood and scarf and the same dress that shee was in before at metting the same day. Being com in, shee was coming up toward this deponents face but turned back to his feet and took hold of them and drew up his body into a heape and Lay upon him about an hour and half or 2 hours, in all which taim this deponent coold not stir nor speake. . . .

Peach did not interpret Martin's supernatural appearance as an inducement to sign a covenant with the Devil or even as a torment inflicted for that purpose. Rather he offered it merely as additional evidence of Martin's malice. Yet for Peach as for some other New England men, witches seem to have been particularly seductive figures.

Implicit in these tales of witches' night wandering is not just that they forced themselves sexually on unwilling men but that witches' carnal appetites were both internally uncontrolled and externally uncontrollable. The testimony implied that these women were dissatisfied with—indeed had no respect for—their society's rules governing sexual behavior. Like the animals with which they were associated, and in whose shape they more often

than not seduced their unsuspecting prey, witches made no attempt to restrain their sexual impulses. Since most of the accused were beyond their child-bearing years, they lacked the "natural" control pregnancy provided; those who were single or widowed, moreover, lacked even the restraint of a husband's presence.

Nowhere are their excesses more apparent than in accounts of witches' intimate contact with their animal familiars. The teats upon which these demonanimals sucked were invariably searched for (and found) on parts of the body where women experience the greatest erotic pleasure, suggesting that the witch may have symbolized forbidden impulses for women as well as men. For while women were only rarely disturbed in their sleep by witches, female accusers frequently testified about witches' contact with familiars, and women were the ones who conducted most of the searches for evidence of it.

Most witches were guilty of seduction only in the minds of their accusers, but the erotic content of witchcraft is also indicated by the presence among the accused of twenty-three women who were explicitly charged with sexual excesses, either during their witchcraft trials or during the years preceding the accusation. When Elizabeth Seager was tried as a witch in Hartford in 1662, she was simultaneously charged with adultery (and blasphemy as well). Her situation paralleled that of Susanna Martin, who in 1669 was also accused of witchcraft and sexual crimes with men. In both cases the magistrates insisted on separating the two issues. More commonly, when direct charges of sexual misbehavior were lodged against an accused witch, it was the Devil who was the alleged partner and the two crimes were treated as one. Sometimes witnesses simply referred vaguely to the Devil's coming "bodyly unto" the woman at night; sometimes they submitted more explicit testimony that the Devil had had carnal knowledge of her. In New Haven in 1653, Elizabeth Godman complained that some neighbors had said that she "had laine with" the Devil and that "Hobbamocke [supposedly an Indian 'devil god']

Testimony presented against Seager, Martin, and Godman was unusual in that during actual witchcraft trials accusers seldom linked licentious acts and witchcraft so blatantly. Witches were sometimes denounced as bawds or lewd women in the course of their trials, but rarely were the sexual charges specified. Yet when we look at the lives of the accused prior to the accusation, we sometimes find evidence of real or alleged sexual offenses. Like women's crimes against the church, these sins seem to have played a role in generating the accusation in the first place. Citing English opinion, Cotton Mather noted that a "lewd and naughty kind of Life" was a sign of "probable" witchcraft.

123

Margaret Jennings's situation is instructive. Jennings had been tried and convicted of fornication in 1643, when she was "Margarett Poore, alias Bedforde" of New Haven, an indentured servant to Captain Nathaniel Turner. She had run away with Nicholas Jennings, evidently taking some of her master's possessions with her. She must have been pregnant when the authorities apprehended her, since among their other actions they ordered the couple to marry and Nicholas to give satisfaction to Turner for the service Margaret owed him. The record is silent until eighteen years later when Margaret (now living in Saybrook, Connecticut) came before the magistrates a second time: she had been ordered to appear with her daughter Martha, both of them to answer a neighbor's complaint. The exact charge was not recorded, but the court ordered young Martha to submit to a physical examination. Finding her not to be "with child but rather the contrary," the magistrates released both her and her mother. Soon after, Margaret and her husband Nicholas were on trial for their lives, accused of murdering several persons, including a young child, by witchcraft. Many of the jurymen believed them both guilty but hesitated to convict them. The only apparent action taken against them was the removal of their two youngest children from their care.

Mercy Desborough's experience suggests another variation on the way sexual themes appear in the life histories of the accused. Desborough was convicted of witchcraft during the Fairfield outbreak in 1692-93, but like Jennings she was not explicitly accused of any licentious behavior. Connecticut legal records reveal, however, that she had been punished in 1661, along with Joseph James, for an unspecified offense. At that time she was Mercy Holbridge, servant to the prominent Gershom Bulkeley of New London. Bulkeley played a central role in getting Desborough reprieved in 1693, and with the court granting her a full pardon it appeared that she was safe from further prosecution. But in 1696, Desborough was brought before the magistrates a third time, not for witchcraft but for fornication and infanticide. James Redfin of Fairfield (formerly of New London) accused her of having done away with an illegitimate child when she worked for Bulkeley nearly thirty-five years before. He implied that Bulkeley (not Joseph James) had fathered the child.

If, as in the cases of Desborough, Jennings, and Susanna Martin, witchcraft suspicion was aroused at the time the sexual misconduct allegedly took place—when these women were all young—there is no sign of it. They were all considerably older when accused of demonic practices. Twenty-one in 1661, Desborough was fifty-two when specifically charged with fornication and infanticide. Many times the sexual sin itself was said to have been committed when the woman was of mature years. Seager's and Godman's exact

ages are unknown, but both seem to have been in their late thirties at least. and possibly much older, when their sexual behavior was publicly called into question. Rachel Clinton was thirty-eight when first charged with adultery; when first accused of witchcraft she was fifty-eight. Neighbors sometimes informed a young woman that her "nightwalking" or "wicked carriages" would lead people to think "the devil was in her," but usually a woman had to pass her childbearing years before suspicions of licentiousness took the form of suspicions of witchcraft. The men said to have been involved with these women, it is worth noting, were often considerably younger.

Women who confessed to witchcraft during the early years of witchcraft prosecutions tended to make the erotic content of witches' seduction more obvious than their accusers did. Admitting carnal knowledge of both men and devils, these women seldom cloaked their descriptions in vague language. Mary Johnson and Rebecca Greensmith provided detailed accounts of their relationships with devils, and Johnson further confessed to more earthly sexual encounters. After the 1660s, the sexual content of confessions became more muted. During the Salem outbreak, many women confessed that Satan had them "soul and body," but only occasionally during the latter part of the century did accused women offer specific sexual information. When fiftythree-year-old Rebecca Eames of Andover admitted in 1692 that she had given herself soul and body to the Devil, she made it clear that she considered herself an adulterer—but she was a rare exception.

Accusations of Devil worship were sometimes viewed as God's way of punishing women for illicit sexual behavior, as is evident in the response of Margaret Lakes of Dorchester to her witchcraft conviction. When, just before she was hanged, both a minister and her former master tried to convince her to confess, she refused, saying that she "owned nothing of the crime laid to her charge." At the same time, according to John Hale, she fully justified God for bringing her out as a witch, saying that "she had when a single woman played the harlot, and being with Child used means to destroy the fruit of her body to conceal her sin and shame."

As the words of Margaret Lakes might suggest, New Englanders associated witchcraft not just with sexual fantasy, fornication, and adultery, but also with bearing illegitimate children, with abortion, and with infanticide—sins attributed to women almost exclusively. At least fourteen women were suspected of one of these three sins prior to their witchcraft accusations. Such crimes (whether committed by these women or not) might have been understood as evidence of dissatisfaction with the social rules governing female sexuality and reproduction, but for many New Englanders these sins carried greater import. They stamped the witch as guilty of interfering with the nat-

ural processes of life and death. A woman guilty of these crimes took it upon herself to decide who should live and who should die, the prerogative of God alone. Even if, like Boston's Jane Hawkins, she was thought to have helped generate life, or like Rachel Fuller had cast spells to prolong life, her transgression was just as heinous. For women even to possess knowledge so critical to the existence of their families and neighbors seems to have been at the heart of many witchcraft accusations.

Some witches were midwives and healers, women whose work involved them daily in matters of life and death. We cannot determine precise numbers - or how explicit a woman's identification as healer had to be to render her vulnerable to suspicion—because all colonial women were responsible for the health of their families. Attendance at childbirth and provision of medical care were two of the many services colonial women provided for their neighbors as well. Medical knowledge and skills were handed down from mother to daughter, in much the same way colonists thought witchcraft arts were passed on. The few published housewifery manuals of the day included not only cooking recipes but "Receipts of Medicines" for "Distempers, Pain, Aches, Wounds, Sores, etc."

Witches such as Ann Burt of Lynn, Elizabeth Morse of Newbury, and Wethersfield's Katherine Harrison all seem to have been paid for their medical services. But the professional status of most of the twenty-two midwife/healers who were accused of witchcraft is more ambiguous. Ann Burt's granddaughter, Elizabeth Proctor of Salem, was accused of killing her neighbors in 1692 because they would not take her medical advice, but it is unclear whether she was a self-identified healer or simply one of thousands of New England women who nursed others through childbirth and illnesses. The problem is further complicated by the presence among witches of women like Ann Pudeator, who turned these housewifery skills to profit when widowed or at other times of economic need. If, as is likely, midwives and healers were particularly susceptible to witchcraft suspicion, we must also recognize that the skills that made them suspect were possessed by most women, if not to the same extent.

Whether paid for their services or not, midwives and healers were in direct competition with the few male medical practitioners, in much the same way that Antinomian and Quaker women vied with ministers for spiritual leadership. Men had already succeeded in denigrating women's medical learning in early seventeenth-century England by designating male healers "doctors," by barring women from "professional" training, and, it seems, by accusing female practitioners of witchcraft. In early New England, however, doctors were still scarce and male control over medical services was not established.

Most towns relied on women's medical skills throughout the century. The frequency with which doctors were involved in witchcraft cases suggests that one of the unspoken (and probably unacknowledged) functions of New England witchcraft was to discredit women's medical knowledge in favor of their male competitors.

Physician Phillip Read of Lynn was connected with at least two separate episodes, testifying in 1669 that Ann Burt caused an illness for which there was "noe Natural caus," and filing an unspecified complaint against Margaret Gifford in 1680. Ministers and magistrates wanting confirmation that individuals were either bewitched or possessed did not rely on the medical knowledge of women, but sought instead the medical advice of men. Hartford magistrates were so reluctant to trust local women on these issues that, lacking doctors in the vicinity, in 1662 they sent for Bray Rossiter of Guilford to corroborate townspeoples' suspicions concerning the death of young Elizabeth Kelly. Midwives were called upon as "juries" to examine the bodies of the accused for signs of devil worship, but this very intimate procedure was as far as the authorities trusted women's medical judgments in witchcraft cases, even though many of the same men relied on women for their own and their families' medical needs. Not surprisingly, only one "doctor" seems to have been accused of wichcraft in New England. Not only was he the husband of one witch and the brother-in-law of another, but he seems to have taken on the title of doctor simply by virtue of his sex.

Just as the witch was a symbol of unrestrained lust to her neighbors, she also symbolized women's control over the health and well-being of others. Most witches, as we have seen, were accused of causing illnesses, accidents, or deaths among family members or neighbors. Infants and young children those physically most dependent upon women—were known to be the most vulnerable to attack. Midwives and healers, like women accused of abortion and infanticide, could have been likely suspects simply because they were ever-present reminders of the power that resided in women's life-giving and life-maintaining roles.

When ministers and magistrates discussed the seductive power of witches they often linked it—albeit covertly—to women's functions not only as midwives and healers but also as childbearers and childrearers. The procreative, nurturing, and nursing roles of women were perverted by witches, who gave birth to and suckled demons instead of children and who dispensed poisons instead of cures. The "Poisonous Insinuations" of witches, Cotton Mather wrote, spread like a "terrible Plague" through communities, causing them to become "Infected and Infested" with evil. John Winthrop told his readers that Anne Hutchinson "easily insinuated her selfe into the affections of many"

because she was "a woman very helpfull in the times of child-birth, and other occasions of bodily infirmities." Those who "tasted of [the Antinomians'] Commodities...," Thomas Weld added, "were streight infected before they were aware, and some being tainted conveyed the infection to others: and thus that Plague first began amongst us." Winthrop and others referred to Hutchinson's seduction of other women in terms of her power to "hatch," "breed," and "nourish" heretical opinions much as she (and other witches) hatched, bred, and nourished monsters. Similar metaphors were employed in discussions of the Quaker menace. Minister John Norton described the influence of the Quakers as a "contagion," arguing that the Puritans must save their "nurse-lings from the poyson of the destroyer."

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Most witches did express dissatisfaction, however indirectly, with the power arrangements of their society, and in doing so they raised the specter of witchcraft, of female rebellion against God and man. The community's apprehension that they would seduce their neighbors—that their disease would spread like a plague to the innocent people around them—was so papable that their lies had to be exposed and the danger they embodied cast out.

# Religion and Magic

RICHARD GODBEER (b. 1961), an associate professor of history at the University of California, Riverside, examines the witch beliefs current in seventeeth century New England. He argues that what ordinary men and women thought about witchcraft was different from what their leaders thought. To ordinary folk, the witch obtained her power to do harm by using magic, and witchcraft was thus just one aspect of a whole universe of superstitious beliefs and practices, including divination, charms, and spells. But the political leaders and ministers of New England saw witchcraft from a religious perspective rather than a magical one. To this elite, the witch's ability to do harm came from the power of the Devil, and "malefecium" to describe the witch beliefs of common people and "diabolism" to describe those of the elite.

In the following excerpt from his 1992 book The Devil's Dominion: Magic and Religion in Early New England, Godbeer shows the interplay between these two views of witchcraft during the Salem trials. Most of the local people who testified as witnesses spoke only about maleficent witchcraft, but the ministers and judges searched for evidence of diabolical witchcraft. The elite found that evidence in the testimony of the afficted girls and in the confessions of witches who were tortured and browbeaten. Godbeer argues that it was this evidence of diabolism that made the Salem trials so deadly, unlike earlier witchcraft trials in New England, where witches were usually acquitted for lack of evidence that Satan was at work.

Godbeer's book, which was published on the 300th anniversary year of the Salem trials, is an example of how historians are taking a closer look at the relationship between magic and religion and at the differences in attitude between people at opposite ends of the social scale.

# 17. Diabolical Witchcraft and Maleficent Witchcraft

On first inspection, the court records from Salem give the impression that Satan had gripped the imagination of Essex County. Take, for example, the confession of William Barker. On 29 August 1692, Barker, an Andover man, appeared before the special court appointed to deal with the witch crisis. He was accused of having used diabolical witchcraft to afflict three women, Abi-

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gail Martin and Rose Foster of Andover, and Martha Sprague of Boxford. During the course of his examination, Barker made a lengthy confession. He admitted that he was a witch and that he had been "in the Snare of the Divel" for about three years. He told the court that he had a large family and was in debt; the Devil had promised to pay off his debts, and so he had made a covenant with him. Since then, Barker confessed, he had indeed afflicted the three women who accused him of witchcraft. He had also attended a recent witch meeting at Salem Village and gave a detailed description of what happened there. George Burroughs, former minister of Salem Village and now "Ring Leader" at the witch gatherings, had blown a trumpet to summon the witches from far and wide. Barker had heard that there were over three hundred witches in New England; about one hundred attended this particular meeting. The Devil himself appeared at the gathering and gave a speech. "Satan's desire," reported Barker, "was to Sett up his own worship, abolish all the Churches in the land, to fall next upon Salem and Soe goe through the Country." The Devil exhorted his followers to recruit new witches and "to pull downe the Kingdom of Christ and Sett Up the kingdome of the Divel." The witches then joined together in a sacrament with bread and wine. Barker told the court that he was "hartyly sorry for W[ha]t he ha[d] done." He promised to renounce the Devil and asked for prayers on his own behalf.

Barker's confession was not an isolated incident. Between February and October 1692, at least forty-three people confessed to diabolical witchcraft, many of them giving graphic descriptions of their dealings with Satan. This made the magistrates' job much easier, since confession was by far the most satisfactory form of evidence for an association with the Devil. When placed in the context of previous New England witch trials, these confessions are, to say the least, surprising. Before 1692, only four New Englanders had confessed to diabolical witchcraft, yet the crowded courtroom at Salem witnessed at least forty-three confessions. Evidence offered against the accused witches also seems to depart radically from that which characterized earlier trials. The depositions seem to be saturated with references to the Devil, his physical appearance, his presentation of the diabolical covenant to initiates, his rites of baptism and sacrament, and his coordination of the witch conspiracy. The usual tension between evidence of maleficium and legal demands for proof of diabolical witchcraft seems to have evaporated.

Yet this initial impression is misleading. Almost all evidence relating to the Devil came from two groups: confessors and the afflicted girls whose torments dominated the court proceedings. The most striking characteristic of other depositions placed before the court is the lack of references to the Devil. Most of these deponents gave no indication whatsoever that they associated

witchcraft with a diabolical agency. The evidence they offered against the accused was much more characteristic of earlier trials: misfortune preceded by an agrument with the accused witch, generally suspicious behavior, and magical activity. The nature of this evidence did not change as the year wore on. By late summer, devil-related testimony given by confessors and afflicted girls must have been common knowledge, yet other deponents continued to describe witchcraft in non-diabolical terms. Their depositions bore eloquent testimony to a widespread popular fear of witchcraft, but such fear was of little use to the magistrates unless deponents provided evidence of a direct link between the accused and the Devil. This they conspicuously failed to do. Only the afflicted girls and those who actually confessed to witchcraft gave evidence that could justify legal conviction. They made constant reference to the Devil and described witchcraft in explicitly diabolical terms. Why was their testimony so different from the other evidence presented to the court?

Officials used both physical torture and psychological pressure to extract evidence of the Devil's involvement from the accused. Most of those who confessed did so under duress and later recanted. John Proctor complained that the authorities had tortured Richard Carrier, Andrew Carrier, and his own son William. According to Proctor, "they tyed them Neck and Heels till the Blood was ready to come out of their Noses and 'tis credibly believed and reported this was the occasion of making them confess that [which] they never did." William Proctor was kept in this position until "the Blood gushed out at his Nose" and they "would have kept him so 24 Hours, if one more Merciful than the rest, had not taken pity on him and caused him to be unbound." Thomas Brattle, a Boston merchant, claimed that "most violent, distracting and draggooning methods" were "used with them, to make them confesse."

You may possibly think that my terms are too severe; but should I tell you what a kind of blade was employed in bringing these women to their confession; what methods from damnation were taken; with what violence urged; how unseasonably they were kept up; what buzzings and chuckings of the hand were used, and the like, I am sure that you would call them (as I do) rude and barbarous methods.

Samuel Willard also complained that many of the confessions were "Extorted." "And let me tell you," he wrote, "there are other ways of undue force and fright, besides Racks, Strapadoes, and such like things as Spanish Inquisitions use." In most cases, threats sufficed to overcome the initial resistance of the accused. Sarah Churchill came to Sarah Ingersoll after her examination and broke down, "Crieng and wringing hur hands se[e]ming to be mutch trobeled in Sparet [spirit]." She told Ingersoll that her confession was false

and that she had lied "because they thr[e]atened hur: and told hur thay would put hur in to the dongin [dungeon] and put hur along with mr Borows [George Burroughs]."

Thomas Brattle complained that William Stoughton, chief justice of the court, assumed the guilt of the accused until convinced otherwise and was "very impatient in hearing any thing which look[ed] another way." Samuel Wardwell, for example, confessed that "he was in the snare of the devil" only "after the returneing of negative answers to severall questions." His "negative answers" were unacceptable to the court. John Hathorne's examination of Sarah Good will serve as an illustration of the bullying and leading questions to which the accused were subjected.

Hathorne: Sarah Good, what evil spirit have you familiarity with?

Good: None.

Hathorne: Have you made no contract with the Devil?

Good: No.

Hathorne: Why doe you hurt these children?

Good: I doe not hurt them. I scorn it.

Hathorne: Who doe you imploy then to doe it?

Good: I imploy nobody.

Hathorne: What creature do you imploy then? Good: No creature but I am falsely accused.

Sarah Good was stubborn and persisted in her refusal to confess, but Deliverance Hobbs of Topsfield eventually gave way. At first, Hobbs denied any responsibility for the torments of the afflicted.

Hathorne: Why do you hurt these persons?

Hobbs: It is unknown to me.

Hathorne: How come you to commit acts of Witchcraft?

Hobbs: I know nothing of it.

Hathorne: It is you, or your appearance, how comes this about? Tell us the truth.

Hobbs: I cannot tell.

Hathorne: Tell us what you know in this case. Who hurts them if you do not?

Hobbs: There are a great many persons hurts us all.

Hathorne: But it is your appearance.

Hobbs: I do not know it.

Hathorne: Have you not consented to it, that they should be hurt?

Hobbs: No in the sight of God, and man, as I shall answere another day.

Hobbs told the court that she herself had been afflicted recently and that she had seen the specters of two witches, but denied that she had been tempted by them. Abigail Williams and Ann Putnam, two of the afflicted girls, now cried out that Goody Hobbs's specter was on the roof beam. They could no longer see her at the bar, even though she stood there.

Hathorne: What do you say to this, that tho[ugh] you are at the bar in person, yet they see your appearance upon the beam, and whereas a few dayes past you were tormented, now you are become a Tormentor? Tell us how this change comes. Tell true.

Hobbs: I have done nothing.

Hathorne: What, have you resolved you shall not confess? Hath any body threatened you if you do confess? You can tell how this change comes.

Hobbs looked over at the afflicted, who promptly fell into fits. It was at this point that her resistance began to crumble.

Hathorne: Tell us the reason of this change: Tell us the truth what have you done?

Hobbs: I cannot speak.

Hathorne: What do you say? What have you done?

Hobbs: I cannot tell.

Hathorne: Have you signed to any book?

Hobbs: It is very lately then. Hathorne: When was it?

Hobbs: The night before the last.

Hathorne: Well the Lord open your heart to confesse the truth. Who brought the book to you?

Hobbs: It was Goody Wilds.

Hobbs then proceeded to give the magistrates all the information they wanted about her dealings with other witch confederates.

The process of interrogation reduced some of the prisoners to a state in which they lost all independence of thought and expression. Six confessing women later submitted a joint petition in which they claimed that their interrogators had "rendered [them] incapable of making [a] defense."

And indeed that confession, that it is said we made, was no other than what was suggested to us by some gentlemen, they telling us that we were witches, and they knew it, and we knew it, which made us think that it was so; and our understandings, our reason, our faculties, almost gone, we were

Religion and Magic

not capable of judging of our condition; as also the hard measures they used with us rendered us incapable of making our defense, but said any thing and every thing which they desired, and most of what we said, was but in effect, a consenting to what they said.

These particular women seem to have been influenced by the social status of the "gentlemen" interrogating them. Deference to the magistracy may have influenced other confessors. The magistrates sometimes began their examinations by reminding suspects that they were now "before Authority" or "in the hands of Authority." Other suspects also came to doubt their own innocence and so confessed, only to recant soon afterward. Sarah Wilson said that "the afflicted persons crying out of her as afflicting them made her fearful of herself." Mary Bridges, Sr., told Increase Mather "that she was brought to her confession by being told that she certainly was a witch, and so made to believe it, although she had no other grounds so to believe."

Several of the accused later admitted that they had confessed in order to save their lives. The court's primary objective was to secure the repentance of those who had become witches, to rescue them from the Devil's clutches, and to enable their reintegration as members of the godly community. Only the recalcitrant would be executed. Under such circumstances, confession was an attractive option. When the magistrates told Margaret Jacobs that she would live if she confessed, her "vile wicked heart" could not resist. In a petition from prison, Rebecca Eames also claimed her confession to have been motivated by fear of execution:

Abigaill Hobbs and Mary Lacye . . . both of them cryed out against me charging me with witchcraft the space of four dayes mocking of me and spitting in my face saying they knew me to be an old witch and If I would not confesse it I should very Spedily be hanged for there was some such as my selfe gone before and it would not be long before I would follow them, w[hi]ch was the Occasion with my owne wicked heart of my saying what I did say.

Relatives often urged the accused to confess, understanding that this might be the only way to save their lives. Martha Tyler of Andover told Increase Mather that when she was brought to Salem, her brother rode with her and "kept telling her that she must needs be a witch, since the afflicted accused her . . . and urging her to confess herself a witch." In the courtroom, her brother and John Emerson, the minister at Gloucester, stood on either side of her, assuring her "that she was certainly a witch, and that she saw the Devil before her eyes at that time (and, accordingly, the said Emerson would at-

tempt with his hand to beat him away from her eyes); and they so urged her to confess, that she wished herself in any dungeon, rather than be so treated." Despite her continued resistance, Martha's brother "still asserted it . . . and that she would be hanged if she would not confess; and continued so long and so violently to urge and press her to confess, that she thought, verily, that her life would have gone from her, and became so terrified in her mind that she owned, at length, almost anything that they propounded to her."

Physical torture and psychological pressure were crucial to the court's success in extracting confessions from accused witches. But some of the accused may also have had their own reasons for confessing. Several claimed that fear of damnation played a prominent role in their recruitment to the Devil's service. Mary Barker signed a covenant with the Devil after he "promesed to perdone her sins." According to William Barker, Satan assured his followers "that their should be no day of resurection or of judgement, and neither punishment nor shame for sin." Elizabeth Johnson, Jr., entered the Devil's service after another witch "told her she Should be Saved if she would be come a witch." Testimonies such as these suggest that some confessions sprang from religious anxiety. Under pressure from the court, accused witches who were already worried about their sins may have found considerable relief in the notion of escape from the rigors of Christian fellowship.

A number of confessors, convinced of their spiritual inadequacy, sought to implicate Satan in their failings. Ann Foster had "formerly frequented the publique metting to worship god, but the divill had such power over her that she could not profit there, and that was her undoeing." Mary Toothaker "wished she had not been baptised because she had not improved it as she ought to have done." Toothaker was a "halfway" church member; that is, she had been baptized but was not yet admitted to the Lord's Supper. Toothaker was clearly concerned about her lack of spiritual progress and probably wondered if she would ever become eligible for full membership. She often tried to pray and "sometymes . . . had been helped to say, Lord be merce full to me a sinner," but usually "she was the worse for praying." Like Ann Foster, she suspected that "the Devil . . . tempted her not to pray." Individuals who were inclined to blame their spiritual failings on the Devil might well respond positively to the court's insistence that they were enslaved to him. Since ministers taught that the Devil approached those who were fit for his service, accused witches who were doubtful of their own moral worth might well come to believe, at least temporarily, that they had been approached and that they had succumbed.

Apart from confessions, the only other substantial body of evidence before the court that could be used to prove diabolical witchcraft came from the afflicted girls, who claimed to be tormented by the specters of accused witches. These specters were devils whom Satan delegated to take on the likeness of witches and then act on their behalf. According to demonological tradition, witches were themselves powerless and needed devils to carry out their bidding. But why did the afflicted see witchcraft in diabolical terms?

The two girls who became afflicted first and whose behavior set the example for those who followed came from the household of Samuel Parris. Nine-year-old Elizabeth Parris was the minister's daughter; eleven-year-old Abigail Williams was his neice. Living under Parris's parental and pastoral care, it is hardly surprising that Elizabeth and Abigail saw witchcraft in diabolical terms. Once physician William Griggs concluded that the two girls were bewitched, Parris surely talked with Abigail and Elizabeth about their condition; he doubtless reminded them, if reminder was necessary, that their tormentors were in league with the Devil. Three other afflicted girls came from the household of Thomas Putnam Jr.: Ann Putnam, a daughter; Mary Walcott, a niece; and Mercy Lewis, a servant girl. Putnam, whose young wife also fell ill, was a close ally of Parris. He interpreted events along the same lines as his pastor and made sure that those under his authority did likewise.

In late March, Parris sent his daughter Elizabeth to live with Stephen Sewall in nearby Salem Town, but Abigail Williams remained in the village. She and the other afflicted girls claimed to be possessed as well as bewitched. During their fits, the girls seemed to lose control over their words and actions; they uttered blasphemies; they interrupted church meetings; they refused to pray. Their irreligious behavior whilst under diabolical influence suggests that they were using possession to express impulses that were otherwise inadmissible; this was, as noted above, a common feature of possession cases. Just as religious anxiety may have prompted some of the accused witches to confess, so the afflicted girls may have used possession to resolve their own spiritual doubts and fears. During the winter of 1691-2, several of the girls who later became possessed had experimented with divination. The members of this fortune-telling group may have realized that such activities were illicit. If so, the unexpected appearance in a divining glass of "a Spectre in likeness of a Coffin" must have been particularly frightening; it was shortly after this "Spectre" appeared that the fits began. Through possession, the girls were able to shift responsibility for their wickedness onto demons within them. Possession must have reinforced the girls'conviction that witches afflicting them were diabolical: after all, if they were possessed by devils, then the witches willing their possession must be in league with devils.

In general, it was fear of human witches, and not of witches as the servants of Satan, that obsessed the people of Essex County in 1692. Magistrates, min-

isters, and the possessed girls were convinced that Satan had inspired and coordinated the witches' activities; some of the confessors also believed, at
least temporarily, that they were in league with the Devil. But other witnesses
against the accused rarely mentioned the Devil in their testimony and gave
little indication that they believed witchcraft to involve diabolical allegiance,
despite the fact that this would have facilitated conviction. These witnesses
focused instead on their arguments with the accused and the misfortunes that
followed, the mysterious behavior that led them to believe the accused had
supernatural power, and the magical skills the accused apparently possessed.
The one common link between confessors, the possessed, and other hostile
witnesses was that all three groups made frequent reference to the practice of
magic in their local communities: they spoke of divination, image magic, and
countermagic. The Devil appeared in only specific kinds of testimony, but
magic was ubiquitous.

During the course of the trials, it became clear that several of the accused either claimed to have expertise in divination, or had at least experimented with divining techniques. Dorcas Hoar of Beverly was widely reputed to be a fortune-teller. Joseph and Deborah Morgan, for example, testified that Hoar "did pretend sum thing of fort[une] telling." John Hale told the court that Hoar "had borrowed a book of Palmistry" and later acquired another "book of fortune telling." Samuel Wardwell of Andover, another of the accused, admitted that "he had been foolishly Led along with telling of fortunes, which sometymes came to pass." Several of Wardwell's neighbors testified that he had indeed told fortunes. Sarah Hawkes of Andover confessed to having used the sieve and scissors, as did Rebecca Johnson, also of Andover. Johnson "acknowledged the turneing of the sieve, in her house by hir daughter, whom she Desyred to no [know] if her brother Moses Haggat was alive or dead." The afflicted girls had themselves been experimenting with divination during the winter of 1691-2: one of them had used "an egg and a glass" to identify her "future Husbands Calling."

Divination was not the only form of magic being used by people in Essex County. Many of the accused were evidently familiar with image magic. Mary Lacey, Sr., testified as follows:

that if she doe take a ragg, clout or any such thing and Roll it up together And Imagine it to represent such and such a persone; Then whatsoever she doth to that Ragg or clout so rouled up, The persone represented thereby will be in lyke manner afflicted.

Mary Bridges, Sr., said that she afflicted people "by sticking pins into things and Clothes and think[ing] of hurting them." Elizabeth Johnson actually pro-

Religion and Magic

duced three poppets in court, two "made of rags" and a third "made of a birch Rhine." One of them had "four peices or stripes of cloth rapt [wrapped] one upon another which she s[ai]d was to afflict four persons with." Another had "two such pieces of rags rolld up together and 3 pins stuck into it." John and William Bly, employed by Bridget Bishop to take down a wall in her cellar, testified that they found there several poppets made of cloth with pins stuck into them. Samuel Shattuck testified that Bishop once asked him to dye "Sundry peeces of lace, Some of w[hi]ch were Soe Short that [he] could not judge them fit for any uce." The implication was that these were intended for a poppet.

Some of the images suspects had apparently used were much less anthropomorphic than others. Mary Lacey, Jr., testified that she "lay on a forme yesterday and squesed that." Ann Foster claimed that "she tyed a knot in a Rage and thre[w] it into the fire to hurt a woeman at Salem Village and that she was hurt by her." Image magic did not necessarily require the use of any intermediary tool. When the magistrates asked Mary Marston what method she used to afflict her victims, she "Answered to pinch and Squeeze her hands together and so to think upon the persones to be afflicted." In the courtroom, the movements of accused witches produced corresponding torments in the afflicted: when suspect Mary Easty clenched her hands together, Mary Lewis's hands also clenched; when Easty bowed her head, the necks of the afflicted girls were wrenched out of their natural position. "Natural Actions in them produced Preternatural actions in the Afflicted," related Deodat Lawson, "so that they are their own Image without any Poppits of Wax or otherwise."

A third form of magic, countermagic, also appeared in court testimony. Samuel Shattock, a Quaker of Salem Village, told the court that in 1685, when one of his children fell ill, neighbors had cut off some of the child's hair and boiled it over fire. While the hair was boiling, Mary Parker arrived at Shattock's door. The neighbors concluded that Parker had caused the child's illness and Shattock now related the incident as evidence against her. Tituba, the slave in Parris's household whom Mary Sibley had commissioned to make a urine-cake, told the court that she was acquainted with "means to be used for the discovery of a Witch." Martha Emerson of Haverhill admitted to having used a witch-bottle. Roger Toothaker, Martha's father and another witch suspect, had taught Martha "to take the afflicted persons water and put [it] in a glass or bottle: and sett it into an oven" as a measure against witch-craft. Martha "owned she had [kept] a womans urin: in a glass." But Toothaker went further and told Thomas Gage that his daughter had actually killed a witch: "his s[ai]d Daughter gott some of the afflicted persons Urine

and put it into an Earthen pott and stopt s[ai]d pott very Close and putt s[ai]d pott [very Close] [in] to a hott oven and stopt up s[ai]d oven and the next morning s[ai]d [witch] was Dead."

There is no surviving record of how the magistrates reacted to this evidence of widespread magical activity. Ministers argued that all forms of magic relied upon a diabolical agency, but what did those giving the evidence believe? The afflicted girls presented testimony relating to magic within the framework of their diabolical narratives. Two confessors also associated magic with devil-worship in their testimony: Abigail Hobbs claimed to have seen poppets in the hands of the Devil himself; Sarah Hawkes testified that the Devil first came to her after she had been using the sieve and scissors, implying that the two incidents were connected. Yet when the court examined Rebecca Johnson, she denied that she was a witch, even though she admitted to having used the sieve and scissors: as far as Johnson was concerned, there was a clear distinction between magic and witchcraft. Hostile witnesses other than the possessed made no mention of any connection between magical practices and the Devil. These people gave no indication that they believed fortune-telling, image magic, or countermagic to depend upon a diabolical agency. Court officials and ministers observing the proceedings would have had to infer any such dependence. When deponents claimed that Dorcas Hoar, Samuel Wardwell, and other accused witches could tell fortunes, they sought to establish only that the accused had occult powers: such powers might well be used for malevolent as well as benevolent purposes and were cause for fear and distrust, but there is no evidence to suggest that witnesses saw these powers as being inherently evil, let alone diabolical.

Two kinds of witchcraft were under attack at the Salem trials. The afflicted girls insisted that the accused had covenanted with Satan. But hostile witnesses other than the afflicted did not seem to believe that witchcraft involved diabolical allegiance. Because these witnesses did not interpret witch incidents in diabolical terms, their evidence was of little use to the court. Indeed, were it not for confessions and the afflicted girls' testimony, there would have been very few, if any, convictions in 1692.