Rumble in the Bronx: Mass Hysteria and the "Chemicalization" of Demonology

By ACSH Staff — August 1, 1999

During late January 1999 in a Bronx, New York City, intermediate school, 80 students and teachers fell suddenly and mysteriously ill, 40–60 students became sick the next day, and 1,200 students were twice "evacuated." The complaints the victims reported included piercing headaches, chest pain, stomach pain, nausea, vomiting, disorientation, dizziness, fainting, and weakness. Said the principal: "Some felt nauseous, and their legs were weak. It was almost like they were hallucinating." Thirty-three students and three teachers were taken to hospitals, where oxygen was administered to some. An odor that suggested rotten eggs was reported.

In the same week there were outbreaks of illness at two Bronx elementary schools: P.S. 4 (in the borough's Bathgate section) and P.S. 19 (in Woodlawn Heights). At the latter school an odor that suggested alcohol was reported. On Monday, January 25, two teachers vomited at P.S. 4; subsequently, three teachers and three students were taken to a hospital and P.S. 4 was "evacuated." The following Thursday 35 persons from P.S. 4 were hospitalized. All except one girl left the hospital by the afternoon of the next day.

For the dizziness and nausea reported at P.S. 4, Board of Education officials opined that an indefinite "noxious emission" from a nearby expressway or the adjacent industrial park had been responsible. As for the intermediate school (in Baychester), the officials opined that classroom overheating due to thermostat nonfunctioning, plus low relative humidity, had probably been largely responsible for the rash of illness.

The schools reopened only after extensive investigations by epidemiologists, other scientists, health officials, and Board of Education and teachers'-union representatives. The New York Times said of the junior-high students: "The children seemed fine, but some of their parents were sick with worry." Indeed, some parents were evidently outraged, complained that officials had made their children guinea pigs, and sought to have their children transferred.

Commonly in situations such as these—cases of sudden, relatively widespread illness whose causes are obscure or unknown—chemicals that are present in the environment in minute concentrations are summarily, and misguided, targeted as likely prime culprits. None of the hypotheses, or speculations, put forward for the outbreak of illness at the three Bronx schools is adequate in light of the gamut of the reported complaints. The hypothesis of mass hysteria is more plausible.

Mass hysteria is not rare. It typically involves imitable disease characteristics that appear suddenly among persons near to one another and that disappear within a few days. In 1979, one of 224 boys and girls at a sixth-grade graduation assembly in a Boston suburb became dizzy, fell from the
stage, and sustained a cut on his chin that bled profusely. Then 34 other children suddenly became dizzy, faint, chilly, and/or otherwise sick. These children were hospitalized. At least 40 other children had milder symptoms and were instructed to lie on the school lawn. Rumors flew. On the basis of one concerning food poisoning, two priests came to attend the families and friends of 12 children who had supposedly died. Suspects included mosquito spray and alleged infection, gas leaks, toxic fumes, and water contamination—but no tentative explanation put forward for this rash of illness has ever been established.

There was a similar outbreak in Santa Monica, California, in 1989, at a school concert with 2,600 attendees. Many of the 600 student performers suddenly complained of abdominal pain, dizziness, headache, nausea, and/or weakness. Earlier that day, during rehearsal, some students had said they smelled fresh paint, and two girls had complained of dizziness, faintness, and nausea. During the concert 247 students took ill, including 16 sopranos who fainted. The fire department dispatched to the school two paramedic units, two engines, and a truck. A treatment station was constructed on the auditorium lawn. Many of the younger girls were frightened and had tears in their eyes as they observed rows of schoolmates on stretchers. Some paramedics and firefighters said they suspected that mass hysteria was responsible for the complaints. Eight ambulances took 19 students to hospitals. Although firefighters tried extensively to determine the presence of toxic chemicals, they did not. Many parents delayed their children's return to school for days.

The diagnosis of mass hysteria is not properly a "default" diagnosis; that is, it is inappropriate to decide that mass hysteria has caused an illness merely because pathogenic organisms and toxic chemicals appear absent. Mass hysteria spreads by sight and/or sound. How one reacts to the sight of a conspicuously sick friend is the best predictor of the development of symptoms.

Mass hysteria occurs most often among adolescents or preadolescents. In groups of students, its incidence among girls is higher than it is among boys. According to some studies, symptoms tend to occur in groups that are overstressed. A history of such loss as of a parent or a history of physical illness increases individual susceptibility in children.

Mass hysteria is by no means a new phenomenon. In antiquity, mass suicide sometimes accompanied mass ecstasy in Greece, Rome, and the Orient. In the Middle Ages there were repeated epidemics of dancing mania and self-torture. Johann Weyer, a German physician, reported a 1566 case of mass hysteria in Amsterdam:

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. . . [Thirty] children in this city began to be tormented in a strange fashion, behaving as if they were maniacs. They intermittently threw themselves on the ground for periods of a half to one-and-one-half hours at a time. When they finally got up again, [they remembered] nothing unpleasant, but arose as if they had just been sleeping.
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Their parents reportedly suspected that witchcraft had been responsible.

Weyer studied many cases of mass hysteria among nuns in convents. The dominant myths in his world were religious, with themes such as "demonic possession" and "sorcery." Weyer said that
his goal was to learn

how certain natural things happen to the body which are often attributed to witches. If there are several bewitched or demoniacal persons in one place, as we ordinarily see it to be the case in monasteries, particularly in convents among the women . . . it is necessary first of all that they all be separated and that each of the girls be sent to her parents or relatives. In this way they could be better enlightened and cured. One must, however, consider each procedure in accordance with the needs of each girl.

In developed countries toxic environmental chemicals seem to have replaced alleged evil spirits and witches. The unseen and the unproven tend to be treated with less skepticism than that which has been established in the scientific community. Indeed, scientific and other authorities are automatically suspect, while even the flimsiest theories affirming alleged conspiracies—the surrogate for “sorcery”—are greeted with credulous pleasure. Instead of torturing alleged evil enchantresses and attempting to purge them of supposed demons, we torment “evil” authorities and institutions and attempt to find—or in any event to banish—demonic chemicals.

Reading a 19th-century account of an instance of mass hysteria at an English textile plant might make one doubt that there has been progress in the area of treating mass hysteria. The report states, in part:

At a cotton manufactory at Bodden Bridge, in Lancashire, a girl on the fifteenth of February, 1787, put a mouse in the bosom of another girl, who had a great dread of mice. The girl was immediately thrown into a fit, and continued in it, with the most violent convulsions, for 24 hours . . . . [Many other girls developed similar symptoms during the next two days.] By this time the alarm was so great that the whole works, in which 200 or 300 were employed, was totally stopped, and an idea prevailed that a particular disease had been introduced by a bag of cotton opened in the house . . . . In all 24 [were afflicted]. Of these, 21 were young women, two were girls of about 10 years of age, and one man, who had been much fatigued with holding [sic] the girls. The symptoms were anxiety, strangulation, and very strong convulsions: and these were so violent as to last without any intermission from a quarter of an hour to 24 hours, and to require four to five persons to prevent the patients from tearing their hair and bashing their heads against the floor or walls . . . . As soon as the patients and the country were assured that the complaints were merely nervous, easily cured, and not introduced by the cotton, no fresh person was affected.

To dissipate their apprehensions still further, the best effects were obtained by causing them to
take a cheerful glass and join in a dance. On Tuesday, the 20th, they danced, and the next day were all at work, except two or three, who were much weakened by their fits.

Information on the diagnostic characteristics of mass hysteria is incomplete. Whether such psychosocial factors as school morale affect the likelihood of its developing is un-known. For example, that the Bronx school near the industrial park is in a poor neighborhood might have been a factor in the outbreak of dizziness and nausea there. In any case, apparently no psychiatrists or social scientists were asked to investigate the Bronx school incidents.

Mass hysteria can cause rashes of physical illness. Taking that into account can prevent incorrect treatments, misdirected responses, and public anxiety and can contribute to humaneness in the handling of such problems.