

Did the Mad Hatter have mercury poisoning?

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After the introduction of mercury into the process of hat making in the seventeenth century it became a notoriously dangerous occupation, especially in France, where mercury was first used. Mercurial poisoning became so common among the hatters in Victorian Britain that it is widely supposed that Lewis Carroll had the condition in mind when he invented the character of the Mad Hatter in *Alice's Adventures in Wonderland*. But did he? I think that the evidence is to the contrary.

The manufacture of hats from fur entailed a process known as felting, in which the hair was cut from the pelt (usually that of a rabbit), laid layer upon layer on a conical mould, and pressed and shrunk with steam or hot water. The use of mercuric nitrate was kept secret by the French and disclosed only when the Edict of Nantes forced the Huguenots to flee to England taking their secret with them. The advantages of using mercuric nitrate in felting were that it made the outer stiff hairs on the pelt soft and limp, and twisted and roughened them so that they packed together more easily. In Britain the process came to be known as carrotting because treatment with the mercuric salt turned white fur reddish brown.

No real favour

The Huguenots did the English hatters no favour by sharing their secret with them. The pelts were usually dipped into the hot mercuric nitrate in poorly ventilated rooms and so common were the symptoms of mercurialism that terms such as "the hatters' shakes" and "mad as a hatter" passed into everyday speech.

The psychotic symptoms of mercury poisoning had been described during the eighteenth century, when mercurial ointments were used in the treatment of syphilis, a night with Venus being followed by the lifetime with Mercury. Georgian physicians looked on toxic signs such as excessive salivation and gingivitis as desirable indications that their patients were anointing themselves with therapeutic doses of ointment. The term *erethism* was used by John Pearson in 1805 to encompass all the manifestations of mercury poisoning, but during the latter part of the nineteenth century its use was restricted to mean only the psychotic symptoms of the disease.

The principal psychotic features of *erethism* were excessive timidity, diffidence, increasing shyness, loss of self confidence, anxiety, and a desire to remain unobserved and unobtrusive. The victim also had a pathological fear of ridicule and often reacted with an explosive loss of temper when criticised. It could scarcely be said that the Mad Hatter suffered to any great extent from the desire to go unnoticed or that the dominant traits of his personality were shyness and timidity. He is portrayed rather as an eccentric extravert with an obsession with time. His watch, which he shook and looked at constantly, told only the day not the hour; it was two days late, the result of the March Hare's putting butter in the works. This was a unending source of regret to him, as was his quarrel with Time, who, so he told Alice, was *him* not *it*. Alice confessed that she had never spoken to Time but had to beat it when she learnt

music. "Ah! That accounts for it," said the Hatter, "He won't stand beating."

The Hatter's quarrel with Time had come about at a concert given by the Queen of Hearts at which he had been asked to sing. It was in March (just before the Hare went mad). Hardly had he finished the first verse when the Queen bawled out, "He's murdering the time! Off with his head!"

"And ever since that," the Hatter went on in a mournful voice, "he won't do a thing I ask! It's always six o'clock now . . . it's always tea time."



The sole lapse from his usual demeanour came in *Through the Looking-Glass and What Alice Found There*, when Haigha (who is really the March Hare in disguise) asked Hatter if he had been happy in prison, when "a tear or two trickled down his cheek." He soon recovered his poise, however, and he disappears from the story, bounding away like a grasshopper on the King's business, having become one of the two royal messengers.

The widespread belief that the Mad Hatter had mercury poisoning is an example of the Bellman's fallacy.¹ The Bellman, who appears in *The Hunting of the Snark*, another of Carroll's fantasies, says, "What I say three times is true." That is, by constant repetition statements come to be regarded as true. So with the origin of the Hatter's madness; it has been repeated so often that he had mercury poisoning that it has become true. In fact, the model for the Mad Hatter was almost certainly a furniture dealer called Theophilus Carter, who lived near Oxford and was well known to Carroll, a lecturer in mathematics at Christ Church. Carter was actually known in the locality as the mad hatter because of his eccentric ideas and because he was in the habit always of wearing a top hat. He was also something of an inventor and one of his more bizarre creations, an alarm clock which woke the sleeper by tipping him out of bed, was exhibited at the Crystal Palace in 1851. This may explain why the Mad Hatter in Alice was so obsessed with time; he certainly was not poisoned with mercury.

Reference

¹ Waldron HA. Hippocrates and lead. *Lancet* 1973;ii:626.