Phineas Gage: Neuroscience’s Most Famous Patient

An accident with a tamping iron made Phineas Gage history’s most famous brain-injury survivor

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Smithsonian Magazine | Subscribe

January 2010

Jack and Beverly Wilgus, collectors of vintage photographs, no longer recall how they came by the 19th-century daguerreotype of a disfigured yet still-handsome man. It was at least 30 years ago. The photograph offered no clues as to where or precisely when it had been taken, who the man was or why he was holding a tapered rod. But the Wilguses speculated that the rod might be a harpoon, and the man’s closed eye and scarred brow the result of an encounter with a whale.

So over the years, as the picture rested in a display case in the couple’s Baltimore home, they thought of the man in the daguerreotype as the battered whaler.

In December 2007, Beverly posted a scan of the image on Flickr, the photo-sharing Web site, and titled it “One-Eyed Man with Harpoon.” Soon, a whaling enthusiast e-mailed her a dissent: that is no harpoon, which suggested that the man was no whaler. Months later, another correspondent told her that the man might be Phineas Gage and, if so, this would be the first known image of him.

Beverly, who had never heard of Gage, went online and found an astonishing tale.

In 1848, Gage, 25, was the foreman of a crew cutting a railroad bed in Cavendish, Vermont. On September 13, as he was using a tamping iron to pack explosive powder into a hole, the powder detonated. The tamping iron—43 inches long, 1.25 inches in diameter and weighing 13.25 pounds—shot skyward, penetrated Gage’s left cheek, ripped into his brain and exited through his skull, landing several dozen feet away. Though blinded in his left eye, he might not even have lost consciousness, and he remained savvy enough to tell a doctor that day, “Here is business enough for you.”

Gage’s initial survival would have ensured him a measure of celebrity, but his name was etched into history by observations made by John Martyn Harlow, the doctor who treated him for a few months afterward. Gage’s friends found him “no longer Gage,” Harlow wrote. The balance between his “intellectual faculties and animal propensities” seemed gone. He could not stick to plans, uttered “the grossest profanity” and showed “little deference for his fellows.” The railroad-construction company that employed him, which had thought him a model foreman, refused to take him back. So Gage went to work at a stable in New Hampshire, drove coaches in Chile and eventually joined relatives in San Francisco, where he died in May 1860, at age 36, after a series of seizures.
In time, Gage became the most famous patient in the annals of neuroscience, because his case was the first to suggest a link between brain trauma and personality change. In his book An Odd Kind of Fame: Stories of Phineas Gage, the University of Melbourne’s Malcolm Macmillan writes that two-thirds of introductory psychology textbooks mention Gage. Even today, his skull, the tamping iron and a mask of his face made while he was alive are the most sought-out items at the Warren Anatomical Museum on the Harvard Medical School campus.

Michael Spurlock, a database administrator in Missoula, Montana, happened upon the Wilgus daguerreotype on Flickr in December 2008. As soon as he saw the object the one-eyed man held, Spurlock knew it was not a harpoon. Too short. No wooden shaft. It looked more like a tamping iron, he thought. Instantly, a name popped into his head: Phineas Gage. Spurlock knew the Gage story well enough to know that any photograph of him would be the first to come to light. He knew enough, too, to be intrigued by Gage’s appearance, if it was Gage. Over the years, accounts of his changed character had gone far beyond Harlow’s observations, Macmillan says, turning him into an ill-tempered, shiftless drunk. But the man in the Flickr photograph seemed well-dressed and confident.