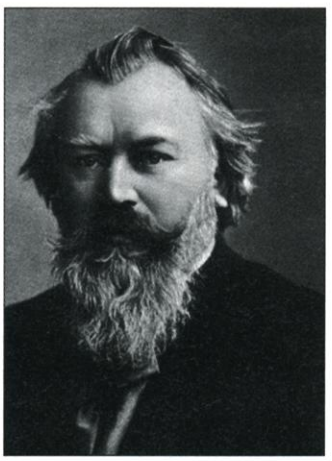
Brahms Gets New Diagnosis

Composer Johannes Brahms may have produced heavenly sounds when awake, but his irritability and "unearthly" snoring suggest that he suffered from a common disorder: sleep apnea. Mitchell Margolis, a pulmonologist at the University of Pennsylvania's Veterans Affairs Medical Center in Philadelphia, offers this posthumous diagnosis in the July issue of the journal *Chest*.

Heavy snoring is one of the most obvious symptoms of obstructive sleep apnea (OSA), in which anatomical irregularities obstruct the upper airway and interrupt breathing. Although Brahms had no wife to complain about noisy nights, a singer who shared a room with him on concert tours described being kept awake by "the most unearthly noises issuing from his nasal and vocal organs." The composer, who died in 1897 at age 64, also had a reputation for dozing off at odd times, often in public places such as cafes and theatres—a clue that he may have been sleep-deprived. He was also known for being short-tempered and prickly, common signs of sleep disruption.



Turbulent sleeper.

Brahms also developed certain risk factors known to exacerbate the symptoms of OSA: He drank heavily, got fat, and had a thick neck. (He could not wear collared shirts after age 50.) Other, more tenuous links include rumors of impotence and evidence of a possible stroke near the time of his death. Both have been associated with episodes of OSA, which lower blood oxygen levels and cause heart irregularities.

Margolis has come up with "a plausible hypothesis," says pulmonologist Safwan Bader, president of the American Sleep Apnea Association. But Brahms's loss may have been society's gain, Margolis speculates: The sleepiness and irritation may have "contributed to lifelong alienation from friends and marriage, thereby nurturing his determined devotion to the creation of his immortal music."

Docs Slow to Go Digital

"Every decade since 1963 I have predicted physicians were going to use computers big time. And every time, I was wrong."

—George Lundberg, editor-in-chief of *Medscape*, at the International Conference on Emerging Infectious Diseases last week in Atlanta.

To Sleep, Perchance To Learn

Forget Freud's theory that dreams are mainly the expression of subconscious desires. There's also a more G-rated purpose: to remember. A new study of brain activity bolsters the theory that people use dream time to replay the day's events and solidify memories.

In humans and other animals, sleep deprivation has a devastating effect on memory, particularly for recently acquired skills. And disrupting REM, or rapid eye movement, sleep—the stage when dreams occur—has the worst effect. Rat studies have suggested a reason for this: Sleeping rats replay the neuronal firing patterns that were triggered when they explored new environments shortly before drifting off.

Now Pierre Maquet of the University of Liege in Belgium and colleagues have used positron emission tomography to show that the same happens in people. The researchers took 3D pictures of brain activity in seven subjects while they learned a computerized task—hitting keys in response to the appearance of a dot on various places on the screen—complicated enough to involve a variety of brain areas. Then the scientists watched brain activity during REM sleep in subjects who had learned the task and observed that some of the same brain areas were more active than in a control group—suggesting that dreaming was helping the "optimization" of the networks responsible for putting the new learning in permanent storage.

The findings, reported in the August issue of *Nature Neuroscience*, are "stunning," says cognitive neuroscientist Robert Stickgold of Harvard University. "I'm surprised that the reactivation is so visible in brain imaging." The heightened activity means that the body puts a great deal of energy into learning even during sleep, he says.

Rediscovery of a Pharaoh?

Egyptologists at the Michael C. Carlos Museum in Atlanta believe they have found the mummy of Ramses I, pharaoh of ancient Egypt during biblical times.

The putative Ramses—whose tomb is in Luxor in the Valley of the Kings—was one of nine Egyptian mummies acquired for $2 million from a Toronto collector, says Betsy Teasley Trope, the museum's assistant curator of antiquities. It lay anonymously for many years in the Niagara Falls Museum in Ontario after being acquired in Egypt in the 1850s.

Crossed arms suggest a Ramses.

Although the body was stripped of wrappings and coffin, Trope says the positioning of the arms across the chest, and the incisions made on the sides to remove internal organs, are consistent with a royal burial some 3300 years ago. What's more, she says, "the face, quite frankly, looks like a member of the Ramesside family." Josef Wegner, an Egyptologist at the University of Pennsylvania Museum in Philadelphia, says the Ramses nose had "a distinctive shape—straight with a bit of a curve at the end."

The museum hopes to definitively identify Ramses with DNA tests now being conducted by scientists at Emory University in Atlanta. They are comparing the mummy's DNA with material from the Cairo Museum taken from Ramses I's son Seti I and his grandson Ramses II, the pharaoh who is believed to have driven the Israelites out of Egypt.

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