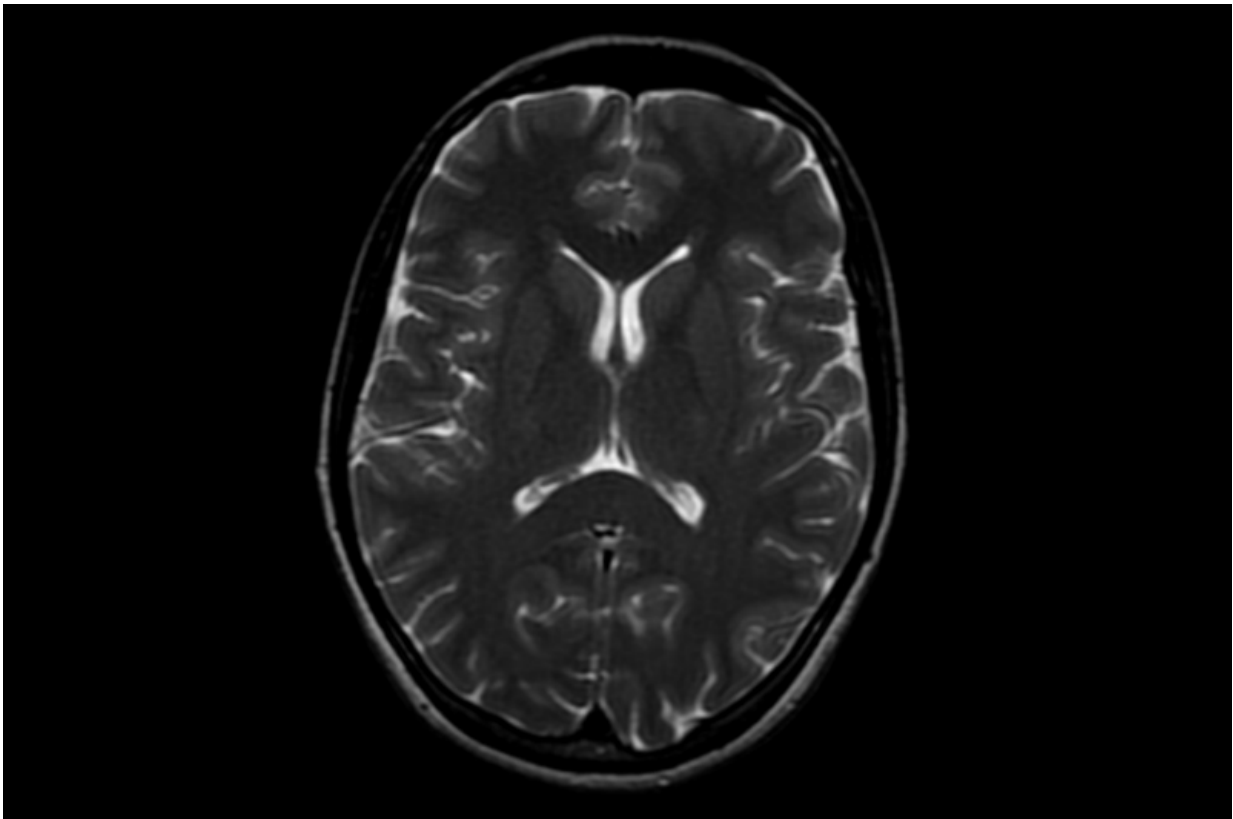


Origin of a myth: The second trauma cure for amnesia

June 14 2016



A scan of a human brain. Photo courtesy of Sean Novak.

Quick, when Fred Flintstone had a bowling ball fall on his head that made him forget who he was, what was the way to fix him again?

Dropping another bowling ball on him, obviously.

While that worked in "The Flintstones" world and many other fictional realms, the medical community knows that like doesn't cure like when it comes to head trauma.

However, a shockingly high level of the general public endorse the Flintstones solution, with 38-46 percent believing that a second blow to the head could cure amnesia, according to Drexel's Mary Spiers. And, believe it or not, that belief was spurred by members of the [medical community](#) dating as far back as the early [19th century](#).

Spiers, PhD, associate professor in the College of Arts and Sciences' Department of Psychology, traced the origins of the double-trauma amnesia cure belief in a paper for *Neurology* titled, "The Head Trauma Amnesia Cure: The Making of a Medical Myth."

For a long time, scientists worked to figure out why the [brain](#) had two hemispheres.

"Studying the brain in the past was very challenging for several reasons," Spiers explained. "There was no way to look into the living brain, as powerful functional imaging now allows us to do. Also, many people, including physicians, philosophers and those in the arts, speculated about the function of the brain, the soul and consciousness, so there were many competing ideas."

At one point, scientists landed on the idea that it was a double organ, like a person's eyes or ears, two pieces that were redundant—doing the same work.

Around the turn of the 19th century, a French scientist named Francois Xavier Bichat decided that the two hemispheres acted in synchrony. One

side mirrored the other, and vice versa.

As such, he reasoned that an injury to one side of the head would throw off the other, "untouched" side.

"[Bichat] seriously proposed the notion that a second blow could restore the wits of someone who had a previous concussion," Spiers wrote in her paper. "Bichat justified this idea by reasoning that hemispheres that are in balance with each other functioned better, while those out of balance cause perceptual and intellectual confusion."

Bichat never cited any specific cases to back up his theory and, ironically enough, he died of a probable head injury in 1802.

"From my reading of Bichat's work, it seems that he felt that the second trauma amnesia cure was a common occurrence and didn't need the citation of an individual case," Spiers said. "This was not unusual at the time, to forgo evidence like that."

Despite backup to his claims, Bichat's ideas continued on after his death and became known as Bichat's Law of Symmetry. Books in the following decades cited brain asymmetry as the root of different mental health issues.

Compounding the symmetry idea was also the dominant thought that human memories could never be lost. However, Samuel Taylor Coleridge—a philosopher, not a physician—was credited with popularizing that idea.

It wasn't until the mid-1800s that scientists began to realize that taking a hit to the head might just destroy memories completely. A second blow wasn't likely to jump-start the brain, they realized, but create further damage.

By this time, however, enough anecdotes about curing amnesia with a second [head trauma](#) were floating around from otherwise respectable scientists that the theory invaded the general public's consciousness. With "no hard and fast lines between scientific and popular writing," myths like the second trauma amnesia cure circulated out of control, according to Spiers.

Even as modern scientists began to fully understand the brain, the theory still stuck with a large amount of the public, resulting in the lumps we continue to see on cartoon characters' heads.

"One of the issues we see in the persistence of this myth is that understanding how the brain forgets, recovers and/or loses information is a complicated matter that is still being studied by brain scientists," Spiers said. "As individuals, we may have had the experience of a 'memory jog' or cue that reminds us of a long-forgotten memory. Because our own experiences serve as powerful evidence to us, this reinforces the myth that all memories are forever stored in the brain and only need some sort of jolt to come back."

But, obviously, that jolt isn't exactly advisable.

"In the case of a [traumatic brain injury](#), learning and memory may be temporarily or permanently impaired due to swelling and injured or destroyed neurons," Spiers concluded. "Some memories may return as the brain recovers, but a second brain injury is never a good treatment for a first [brain injury](#)."

Provided by Drexel University

Citation: Origin of a myth: The second trauma cure for amnesia (2016, June 14) retrieved 18 April 2024 from <https://medicalxpress.com/news/2016-06-myth-trauma-amnesia.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.