



The Powers and Pitfalls of the Boomer Brain

by Nancy Sokoler Steiner

“I’m reading a great book about the middle-aged brain,” I recently told a friend, “but I can’t remember the title.”

Welcome to the boomer brain. Grasping for names. Walking into a room only to wonder what you went there for. Getting halfway through a book before realizing you’ve read it before.

It’s not all bad news, however. According to the book whose name I couldn’t remember — “The Secret Life of the Grown-up Brain” (Penguin, 2010) — not only does the boomer mind have advantages that can’t be found in a younger brain, but it is also possible to strengthen the brain in our middle years and beyond. This hopeful message comes from author Barbara Strauch, a science and health editor at The New York Times who interviewed dozens of scientists to research her book.

First, the bad news: Middle-aged brains (roughly between the ages of 40 and 68) have slower processing speeds than younger brains. That’s why it takes us longer to learn a new language or adapt to a new technology. We also get distracted more easily and have poorer episodic memory — the ability to recall recent events.

And, of course, we often find ourselves mired in what Strauch calls “The Swamp of Lost Names.” We’ve all had the experience of stumbling when it’s time to make an introduction or greet an old acquaintance, even with people — and names — we know well. According to Strauch, this stems from a problem with retrieval, not storage.

“It’s like trying to find the right book in a well-stocked library,” she writes.

“Forgetting names is part of normal aging.”

It’s hard not to jump to worrisome conclusions when we have these brain blips, but Moshe Bar, director of the Leslie and Susan Gonda Multidisciplinary Brain Research Center at Israel’s Bar-Ilan University, assured me that they are normal.

“Forgetting is perfectly natural and generally in itself not an alarming sign,” he told me via e-mail. “Do not forget (no pun intended) that as we grow older, we also tend to be busier (up to a certain age, of course) and have more on our mind. Stress and sleep deprivation, for example, can also add to forgetting. ...Clinical dementia requires much more than occasional forgetting of names, and generally includes significant impairment not only in memory but also in language, attentional allocation, decision making and more.”

OK. We get more forgetful, and it’s not a sign of dementia. And here’s the good news, according to Strauch: “Our middle-aged brains are surprisingly competent and surprisingly talented.”

Boomers, she discovered, are best able to appreciate complexity, detect patterns and exercise good judgment.

“Faced with information that in some way — even a very small way — relates to what’s already known, the middle-aged brain works quicker and smarter, discerning patterns and jumping to the logical endpoint,” she writes.

Drorit “Dee” Gaines, a post-doctoral trainee in the field of neuropsychol-

ogy at the UCLA Longevity Center, notes that executive functioning excels in middle age.

“We are better at understanding the full meaning of a complex situation, better at grasping all the details, and getting the ‘main picture,’ ” she explained. “We are also more contemplative, careful in our weighing and processing a situation, a scenario. ... We have more stored knowledge we can utilize to our advantage when we approach a cognitive task and often incorporate this pre-existing knowledge in our ‘executive’ processing.”

Strauch also reports that we can build up our cognitive reserve — a protective “reservoir of strength” that makes the brain more resilient and better able to tolerate damage. And we can do so at any time in our lives — including middle age and beyond.

It was once thought that the adult brain cannot change, but scientists now know that our actions can literally change the arrangements of our brains. As Strauch explains, “If two brain cells are activated at the same time, they will actually change their structure, form stronger connections, letting us form memories and learn.”

Scientists are still trying to determine exactly *how* to boost cognitive reserve, but Strauch reports that some consensus has emerged. Education is one factor. A study done at Columbia University found that those with higher levels of education or more complex occupations were less likely to show signs of dementia.

Cognitive activity is another factor. While the effectiveness of “brain building” programs has not yet been established, it seems engaging in mental activity that becomes progressively more difficult can help boost cognitive reserve.

Perhaps the most established method of building cognitive reserve is physical activity. Aerobic activity appears to stimulate the growth of new brain cells — at least in mice. And it definitely increases blood flow in the dentate gyrus, an area in the brain that is crucial to memory. Strauch cites a study showing that participants over age 60 who did regular stints of aerobic exercise for six months showed increased brain volume.

Gaines said that physical activity engages “multiple brain systems, such

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as sensory, motor, balance and coordination, breathing and movement regulation. And for more complicated, pattern-based exercises [such as tai chi and yoga], memory and executive functions [are also engaged].”

Social activity is beneficial, too, although we don’t know exactly why, according to Bar.

“Perhaps the constant cognitive demands involved in such interactions, perhaps the good feeling associated with being with friends,” he speculated. “But the bottom line is that they help maintain the cortical volume of the very regions that lose volume with aging.”

So what are we to conclude about the boomer brain? It’s a trade-off. But in some areas at least, according to Bar, “[T]he increased experience that comes with aging more than compensates for the loss of neurons.” ■