

Focus, analyze, and take time to grow your brainpower, expert advises

March 6 2013, by Nancy Churnin

Want to make your brain smarter? Slow down and dig deeper, advises Dr. Sandra Bond Chapman, a neuroscientist who has spent nearly 30 years studying this question.

It's not an easy prescription in a multitasking age where the ping of messages distracts your train of thought and schools reward rote memory, she concedes.

But her research shows that the [brain](#)'s true growth occurs only when we focus, analyze and get those trains back on track. Chapman, founder and chief director of the Center for BrainHealth of the University of Texas at Dallas, discusses her findings in her new book, "Make Your Brain Smarter: Increase Your Brain's Creativity, Energy and Focus" (Free Press, \$26), written with Shelly Kirkland.

We talked to her recently. Here's what she said:

Q: Why do you think it's important to change what we mean by the word "smart"?

A: We tend to think that the smart person is the one who knows the most and retrieves the facts the quickest, but that's rote and rigid learning. You can create a robot that can do the same thing and in fact will surpass us. What really makes us smart is our ability to synthesize, abstract and process information.

Q: Why do the frontal lobes play such a key role in your research?

A: Our frontal lobes pull together all the information from all the sources we have and help us figure out what to do with it. The frontal lobes have the most complex and vast connections across [brain regions](#) and are the last part of the brain to fully develop, usually in our 20s, but they are also the first to decline because in our 40s we tend to go on automatic pilot in our thinking.

Q: So, you are saying the frontal lobes don't have to decline?

A: That's right. Our brains have [neuroplasticity](#), which means that they are the most changeable part of our body. If I go on automatic pilot, I lose [brain power](#). But if I work the organ, it can get better every single year. A lot of people have this idea that IQ is fixed and you're born smart or you're not. IQ was designed to see if kids had learning problems, to see their strengths and weaknesses. It was never meant to define the potential of the human mind or to say how far you're going to reach.

Q: Are you also saying, then, that the frontal lobes don't automatically reach their potential?

A: Yes. If children don't learn to weigh information rather than just take it in, if they don't learn how to see both sides and try to come up with ways to solve problems, then they aren't engaged in the higher order of thinking. If they're doing rote learning instead of using these deeper thinking skills, they may not build what they are supposed to build, which means that they may not end up with the discernment to make good judgments in other areas as well.

Q: Is technology good or bad for our brains?

A: Yes, it is. (She laughs.) There is some good to staying connected. The problem is that we're letting technology manage us more than we manage it. The more we keep ourselves in shallow, busy levels, the more our thinking gets fragmented, the more we are building a distracted brain that can't focus; we're building an ADD (attention-deficit disorder) brain. The frontal lobes require deeper-level thinking.

Q: What are the first steps we can take right now to build a smarter brain?

A: Do one thing at a time and hyperfocus, instead of multitask. Try to think of two important things you do that have been on [automatic pilot](#) and repeated in the same way far too long and brainstorm ways to shake them up. Be creative. When you go to a movie, ask yourself what the messages are and how can you apply them to yourself. Every time you do something new or understand something new, that stretches and builds complex frontal-lobe connections. All of these are exercises for above the neck that help you think smarter, not harder.

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TIPS FOR BRAIN HEALTH

Advice from Dr. Sandra Bond Chapman:

Practice the "brainpower of none" and quiet your mind. Your brain solves complex problems when you step away to reflect on ideas rather than pushing nonstop, so schedule periods of brain downtime to see "aha" moments.

Practice the "brainpower of two." When writing your to-do list, focus on the two items that are the most pivotal to your success, will have the most impact, and will require the most attention and strategic thinking.

Transform your thinking and leadership skills. Stretch and challenge your mind to construct deeper-level, abstracted ideas. Continually interpret incoming information as often as possible - for example, practice devising a newspaper headline to capture the essence of what you experienced during a meeting or social gathering.

Expand your passion. Your brain is energized when motivational juices are flowing.

Get a good night's sleep - a regular 7-8 hours. Your brain connects knowledge and experiences in new ways when at rest. Even a quick nap invites mind renewal and innovation.

Don't check your email before bedtime! Give your brain a break.

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