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What neuroscience tells us about getting organized

By **Jena McGregor** September 8, 2014

We've all heard the conventional wisdom for better managing our time and organizing our professional and personal lives. Don't try to multitask. Turn the email and Facebook alerts off to help stay focused. Make separate to-do lists for tasks that require a few minutes, a few hours and long-term planning.

But what's grounded in real evidence and what's not? In his new book *The Organized Mind*, Daniel Levitin — a McGill University professor of psychology and behavioral neuroscience — explores how having a basic understanding of the way the brain works can help us think about organizing our homes, our businesses, our time and even our schools in an age of information overload.

We spoke with Levitin about why multi-tasking never works, what images of good leaders' brains actually look like, and why email and Twitter are so incredibly addicting. The following transcript of our conversation has been edited for length and clarity.

Q. What was your goal in writing this book?

A. Neuroscientists have learned a lot in the last 10 or 15 years about how the brain organizes information, and why we pay attention to some things and forget others. But most of this information hasn't trickled down to the average reader. There are a lot of books about how to get organized and a lot of books about how to be better and more productive at business, but I don't know of one that grounds any of these in the science.

Q. From the book, you seem to be a fan of [David Allen](#), the time management guru. Does his "Getting Things Done" system have a real basis in neuroscience?

A. A lot of what he says is. One of his big ideas is the mind-clearing exercise. At various intervals throughout your day or week, you're supposed to stop and write down all the clutter. Well, the scientific basis for this is real. The conscious mind can only pay attention to about four things at once. If you've got these nagging voices in your head telling you to remember to pick up the laundry and call so-and-so, they're competing in your brain for neural resources with the stuff you're actually trying to do, like getting your work done.

But I would also modify Allen's system based on the science. I don't think you need to file everything as he suggests. People have different styles: Some are filers and some are pilers. The people who pile things often know exactly where things are, and they're often just as organized as the people who file things. The other thing I would say that's at variance with David Allen is that it's okay to have a miscellaneous file or a junk drawer. There's probably a perfect place for everything in your house, but it's not always worth taking the time to find it.

Q. There are a bunch of practical, and pretty low-tech, suggestions in your book for getting organized. For instance, you suggest writing down each thing we need to do on separate 3x5 index cards. Why?

A. It's not about having a perfect system, but the 3x5 cards offer the freedom to reorganize and re-prioritize — to put things in piles or change the order of things. At some point in the day, your priorities change. It's relatively simple to go through the whole stack, find the card you want and put it at the top of the pile.

The problem with the computer is that it's a place where everything is done, and you don't associate it with your to-do list. The index cards, on the other hand, become the place you go to see what's up next or to put down thoughts. Your brain remembers and associates a certain activity and a certain focus with those index cards, or with your notebook, or your paper and pencil list. Which one doesn't matter. They're each a physical object in a particular physical space, as opposed to the computer screen, which has 100 different activities associated with it, from watching videos of a cat playing a piano to doing your email. That kind of fractionating of purpose is difficult for the brain to deal with.

Q. Your book makes a pretty strong case against multi-tasking. What are the neuroscience underpinnings for why it's so bad for us?

A. We now know that the brain doesn't multi-task. Rather, the brain shifts rapidly from one thing to the next. That causes us to not be able to focus attention on any one thing, and this dividing of our attention makes us less efficient. The reason we think we're good at it is just self-delusion. The brain is a very good deceiver.

Q. Why is multi-tasking such a hard habit for many people to break?

A. Multi-tasking puts us in a kind of dopamine addiction loop, which is similar to cocaine addiction. Each time we do some little new task, our brain rewards us with a tiny shot of dopamine, the pleasure neurochemical. For our ancestors, this was a motivating force to be active and get things done. Today, even answering an email or responding to a tweet gives out these little dollops of reward.

There was a famous study in the 1950s where rats were given an opportunity to press a bar that would release dopamine in their brains. They pressed that bar to the exclusion of everything else, including eating and having sex and sleeping and drinking. They died of starvation and thirst because the dopamine became more important. We have to train ourselves. We have to enforce time away from these things because it can be a real addiction, a

chemical addiction.

Q. What is "Area 47" in the brain, and why is keeping it happy important for job satisfaction?

A. My colleague and I have been studying this little sliver of brain tissue for 15 years. If you put your fingertips on your temples, just above the outside part of your eyebrows, Area 47 is in there. It's about the size of an almond on each side. Area 47 contains prediction circuits that are scanning and monitoring the environment and trying to figure out what's going to happen next. Keeping Area 47 happy is tricky. If everything in the environment is utterly predictable, you become bored. If it's utterly unpredictable, you become frustrated.

Pleasure results from having Area 47 experience an optimal balance between predictability and surprise. And one of the principles of job satisfaction is we function best in that context — when we're working under some constraints, but able to exercise some creativity within those constraints. People like feeling as though they're not just cogs in the machine.

Q. In the book you write that researchers have begun examining what the brain of a leader looks like. You suggest that within a few years the techniques may be refined enough to use as a screening tool for leadership positions. Really?

A. In five to 10 years we'll know more and we'll be able to use it. Whether it will be helpful in practice or not, that's hard to say. It's emerging that there are differences in brain structure. There are regions of the brain associated with empathy, and they're more active in good leaders who, in an experiment, are listening to various scenarios being told. Good leaders also tend to use more parts of their brain, so we see more connectivity between brain regions, more shuttling of information around from the left to the right hemisphere or the front to the back. These are preliminary studies, and it's early.

Q. Aren't there any concerns that could be misused?

There are a lot of other factors, right? One can have the personality and the brain structure but then be mismatched for the company. So there are environmental factors too that can't be ignored.

I don't know what is going to happen in the real world. I just think in five to 10 years the science will have progressed to where we'll have a better idea of what the neural components of leadership are. I want to emphasize that whatever we discover, my hunch is that only about 50 percent of what goes into being a leader will be revealed through the brain. The other 50 percent will be factors like culture and environment.

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Jena McGregor writes a daily column analyzing leadership in the news for the Washington Post's On Leadership section.
