

Brian Thwait's

Guest Editorial

Change Your Brain... For Safety's Sake

In May 2017, I had the great pleasure to address the 46th Annual OOHNA Conference in Kingston, Ontario on the "safety" aspect of "Keeping Workers Well", and I was asked to follow up with some of my thoughts in this editorial.

Neuromyths – Fiction Not Fact

Neuromyth #1: Humans are either left-brained or right-brained. In fact, we're quite balanced-brained. While each side of the brain has what might be called 'primary functions', the left and the right complement each other nicely when performing most mental tasks. Each side often helps the opposite one work much better!

Neuromyth #2: Our brains are good at multitasking. No. Many of us imagine we're pretty good at doing numerous things at once – and we're convinced we'll keep getting better at it the longer we do so – but our brains aren't proficient at all when it comes to multitasking. One thing at a time, please.

Neuromyth #3: We use only 10% of our brains. Many people think Albert Einstein said this. (He didn't.) While it may be true that all parts of the brain aren't always active at the same time, and different areas may be 'asleep' because they're not needed at any specific moment, the whole brain is ready and waiting to spring into action when required. If we used only 10% of our brains, we wouldn't be

able to get through the day with any level of success.

Neuromyth #4: Playing brain games makes us smarter. Not really. Playing these games may be a beneficial way to spend time otherwise wasted and may even improve our problem-solving capabilities, but engaging in these activities is unlikely to raise our IQs. This is why a number of companies in the brain-training business – both brick-and-mortar and online – have been censured and sued for substantial amounts of money in recent years.

Neuromyth # 5: We have particular learning styles. Plenty of people, including a considerable number of trainers, teachers and parents around the world, believe this to be correct. It's not. There's never been a shred of scientific evidence to show that teaching to a person's unique 'learning style' leads to more successful outcomes. Humans, however, do have favourite learning preferences – but that's not the same thing. Just because we'd rather learn something new by a certain process that appeals to us doesn't mean that's the best or easiest manner to learn it. As a matter of fact, we frequently learn better when presented with information in ways that put us outside our comfort zones.

Neuromyth # 6: Brains are fully developed by the late teens. Current research indicates that brains continue to mature well into the 20s and perhaps even into

the early 30s. From a safety standpoint, this discovery is extremely significant, and we need to be expressly aware of it when training young members in our organizations. The last part of the brain that fully develops is the frontal lobe, responsible for decision-making.

How to Help Information 'Stick' to the Brain

A 2015 Microsoft Canada survey suggested that the plethora of distractions we face in our modern technological world has impacted us to the extent that the attention span of a goldfish is now better than our own. We've undergone a downturn from 12 seconds to eight seconds – a notable drop of 33% – while the goldfish has maintained a steady attention span of nine seconds.

To counter our growing inability to maintain attention, the best recipe for success is to work in short bursts, focus on one thing at a time whenever we can, and use repetition to 'overlearn' material once it's been stored in our memory systems.

Our brains are malleable, as ready to unlearn as they are to learn – a crucial fact to understand when dealing with safety concerns – and they have a remarkable capacity to recalibrate themselves. We can embrace plasticity and rewire our brains by growing our dendrites, the 'branches' that grow off the nucleus of our brain cells to connect and interact with each other. The great news is that every time we learn something new, our dendrites grow thicker, longer, and more robust. As neuroscientists like to say: neurons that fire together... wire together!

While there are a number of ways we can ensure that our dendrites flourish, here are three recommendations that can be especially helpful:

1. Be physically active – If we were to ask neuroscientists for one piece of advice about

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keeping our brains fit as we age, they'd tell us to get moving. Since our brains take up 2-3% of our bodies' mass but consume 20% of our energy, we should heed that old saying about a healthy mind in a healthy body.

- 2. Eat well** – It seems that food which is good for our hearts is probably also good for our brains. Therefore, it would be a good idea to consider a version of the Mediterranean diet, incorporating plant-based foods along with some fish and poultry.
- 3. Get sleep** – Sleep deprivation affects an unfortunately large segment of our workforce, and that's worrisome in relation to the great efforts we make to keep our employees safe. Waking up after having fewer than seven hours of sleep is comparable to starting the day with a mini-concussion... and that's hardly how we should be rolling out of bed and heading off to work.

Brains Can Change

Change is everywhere, and we're not always happy about that. Managing constant change is hard

work and requires an abundance of patience, commitment and effort. Luckily, our brains aren't merely *capable* of change; they quite like change. Brains *thrive* on it. While our hearts may sink when confronted with yet another revision/rearrangement/restructuring, our brains are likely celebrating because they get totally stimulated when things are fresh and different.

As Occupational Health and Safety specialists, when presenting information to those we work with – whose ongoing health and well-being are such important elements of our principal responsibilities – we'd be wise to think of interesting methods to communicate with them and appeal to their brains in ways that are a bit different than what they're used to.

It's impossible for brains to ignore originality, so the concept of 'new and novel' is almost always appealing – and that will help our brains immeasurably to not just cope with change, but *embrace* it... for safety's sake.

Brian Thwaits is an educator, professional speaker and 'brain trainer'. You can follow him @brianthwaits and discover more about learning at www.brainspeaker.com.