

The New Science of Neurocoaching

By Robert I Holmes

Four years ago executives around the world were asked by Sherpa Coaching about what sort of background they thought would be helpful for a coach. Psychology and counselling came in as least desirable on the list. However this year's Executive Survey (2014) by the same firm found that neuroscience has topped the field of desirable backgrounds. What's true for the goose is also true for the gander... 76% of coaches surveyed said neuroscience should play a strong role in coaching too. Coaches are now gearing up and I am no exception! Our company have become founding members of the Neuro Coaching Institute in Australia. What exactly is neurocoaching? Well it is the latest in a long line of brain related disciplines that gather under the banner of "neuroscience". Let's talk about that for a moment.

Broadly defined, neuroscience is a combination of medicine, physiology, applied psychology, immunology, the study of human behaviour and some hard core imaging in big, white, expensive machines. The industry has existed since the 1850's (obviously without the machines) and has evolved over four distinct eras. These are of interest because when you're reading the literature or chatting to a colleague about this fascinating subject you can hear which of these eras they are coming from. It's easy to get lost in the world of "neuro" everything, so here's a dummies guide to the departments in this giant industry...

Mechanics. People have been cutting up the brain and describing its components since the time of the Egyptians. Those who study brain structure are called *neurobiologists*. This mechanical understanding is often descriptive. For example, "This is Broca's area and it processes language."

Electricians. Brain science was profoundly altered in 1902 when Camillo Golgi and Ramón y Cajal discovered that neurons have an electrical charge. Those who study neurons are called *neurophysiologists*. They invented, among other things, electro convulsive therapy to fix things.

Chemists. The next big shift came in the 1962 when Bernard Katz discovered cross synapse communication and Henry Hallett Dale who studied neurotransmission. This led to a plethora of drug based remedies, dished out by *neuropsychiatrists* to add back missing chemistry.

Network engineers. In the 1970's Eric Kandel studied how memory works across organic neuronal networks. *Affective neuroscientists* focus on how emotions work and *cognitive neuroscientists* focus on how thinking and consciousness work.

The jump off point

In the last ten years at least five distinct application disciplines have emerged, each of them very new (for obvious reasons). These are:

- *Neuroleadership*: how neuroscience can inform leadership, HR, change management and training/teaching.
- *Neurolinguistics*: understanding how we comprehend, filter, learn language, use self talk and how beliefs are formed.
- *Neuropsychology*: focuses on brain injury, brain trauma and the assessment of cognitive function.
- *Neuropsychotherapy*: understanding how talking therapies change the brain (e.g. mirror neurons) and behaviour.
- *Neurocoaching*: the integration of neuroscience breakthroughs into coaching and therapeutic approaches, especially recovery, mental health and trauma.

Central to a coach's interest is the discovery of neuroplasticity - the idea that the way you think can physically alter your brain at the neural level and reverse previous learning, impairment or damage. Here in Australia, Todd Samson popularised the applicability of this field in his series "Redesign My Brain" for the ABC. In doing so he also showed just how accessible neuroscience is, especially for those who wish to use it without having a doctoral degree.

One of the things we have learned is neurons that fire together, wire together and those that fire apart, wire apart. The more you practice something the more embedded it becomes, or the more unconsciously competent you get at it. This has some really great applications for weight loss, memory strengthening, learning new skills and recovery from major surgery.

Onward to neurocoaching

At its core coaching believes in a person's ability to examine their beliefs in order to change them. As a result their behaviour and experience of the world changes too and they can get the outcomes they really desire. Neuroscience is proving the same belief through neuroplasticity. When you think different thoughts, especially changing your inner dialogue or self talk, you will get different neurochemistry (feelings) and outcomes. The more you practice a new state, the more it becomes the default setting.

This explains in part why our company has signed up to become part of the emerging field of neurocoaching. We are collaborating with research scientists, coaches working with trauma sufferers and exposing our coaching to the scrutiny of evidence based research. We think neurocoaching is the future. But let me make something clear. Just knowing which parts of the brain fire up when we look at a psychological test inside a brain scanner does not take us there. Describing neurology and affecting actual performance are a long distance apart.

Once we know that juggling improves memory (which oddly enough it does), you still have to practice juggling and recitation of facts. Once we know rapid eye movement desensitises trauma (which again it does), you still have to go to EMDR therapy for six weeks and the results are not permanent. That's where coaches come in, because the coach can grasp what the doctoral students have learned (described) and walk their client through skill development and strategy deployment.

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