

# Trigger happy?



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**It's taken a billion years of evolution to make man what he is today, but the triggers and behaviours you might think we left behind centuries ago still affect the way we respond.**

WORDS PAUL VON BERGEN

**L**ife on Earth has been evolving for a billion years, and this biological history resides within each of us. Until you understand the impact this inherited physiology has on people, you will never truly understand their behaviour — and the place to start learning about it is yourself.

Bacteria have been part of life from the beginning, with science suggesting that complex life developed after bacteria fused with single cells. The ensuing symbiotic relationship has underpinned life ever since.

You have about the same quantity of bacteria cells in your body as human

cells, and the impact that your gut microbiology has on your mental performance is only just being understood. For instance, we've recently discovered that more than 90 per cent of serotonin — a neurotransmitter directly linked to mood balance — is produced in the gut. Similarly, the digestive system's main nerve, the vagus, has a direct link to the brain, with 90 per cent of the information it carries going gut to brain, not the other way around.

In fact, a study conducted on mice in 2011 found that changing an animal's gut bacteria can affect both its behaviour and brain biochemistry: several of the mice transformed from

timid and shy to bold and adventurous. Perhaps in the future it will be possible to tweak your team's gut microbiology to optimise personalities for results.

Your biological history also contains about 600 million years' worth of reptilian evolution. This ancient part of your brainstem has been hardwired to activate a fight or flight reaction to any threat, real or imaginary — and for evolutionary success, it was better safe than sorry; the paranoid survived. This triggering of the sympathetic response system is also known as stress.

In the present day, it's not sabretooth tigers that cause stress; rather it's

having too many emails, being spoken to in a slightly rude tone or, most common of all, having negative or anxious thoughts.

Stress is a whole-body response involving the release of hormones. It shuts down non-essential neural circuits, reduces the brain's ability to lay down new cells in the hippocampus, and degrades the immune system. It's not a state that leads to good cognitive decision-making.

Therefore, any executive under pressure must have the ability to self-regulate through deliberately invoking a parasympathetic response. This induces a state when new neurons can be created and the frontal cerebral cortex is fully activated. To do this, one must first notice the stress activation, and that is a skill that can be mastered through self-awareness of the body and its emotions.

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Your biological history contains 60 million years of mammalian evolution, too; your limbic brain has evolved to use memories and emotions to create habits. All mammals are habitual creatures, and we should not underestimate the power that conditioning has on our behaviour.

Our limbic system is essentially a playback-record device that remembers actions associated with positive emotions. It therefore tries to get us to repeat these actions and avoid behaviours that are connected with negative emotions. There is no space in the limbic system for contemplating whether repeating the

same behaviour over and over again is actually beneficial. Apply this to business, and your staff needs to be creative and original in their thinking, not making decisions based on internal or external conditioning.

Your biological history also includes about 200,000 years of *Homo sapiens* evolution. Man is a recent iteration of life that has evolved to include what has worked best for the past 50,000 generations, not the past 5,000 and certainly not the past five.

The main human evolutionary leap seems to have come in the shape of the brain's neo-cortex, the part responsible for language and abstract thought. The frontal cerebral cortex can override the more primitive parts of your brain; thus, you can decide that having 200 emails to deal with in 15 minutes is not a reason to trigger a huge rush of cortisol around your body in the activation of the primitive sympathetic response. Doing this is called a cortical override, a self-management of the stress response that can be trained through mindfulness and meditation exercises. Research from Harvard University shows that eight weeks of meditation practice is enough to cause measurable brain-tissue growth.

So whether you like it or not, your biological history plays a large part in your story. By understanding the influence of one billion years of evolution, you can better identify inherited tendencies for what they often are: remnants of an earlier life. It's possible to make conscious frontal cortex decisions to override unhelpful patterns that might have served a mammal well on the savannah, but that don't work quite so well in modern life.

The question is: how evolved do you want to be? ■