

Are you making the most of your brain to achieve the outcomes you and your organisation want?

In this Whitepaper...

I'd like to signpost a strategy for individuals and organisations to be successful (whatever success means to the individual or organisation). I will start with some big picture thinking on evolution and flexibility and then move to the more specific terrain of how we can maximise our most precious human 'hardware', that is to say, how we can get the most out of our brains.

The notion of punctuated equilibrium

Punctuated equilibrium (Merriam-Webster, 2021), a term coined by scientists in the 1970s, purports that evolutionary development is marked by isolated episodes of rapid speciation development between long periods of time, where little or no change occurs. That is to say, fossil records stay the same for long periods of time and then dramatically they change, with specialisation allowing some sub-species to survive while the 'original' species does not. It is a refinement of Darwin's theory of evolution (Darwin, 1859) (that evolution is a continuous and gradual process). I think Darwin is correct right up until the point that an organisation is acquired, divested, goes bust or there is a global pandemic for the first time in 101 years!

How do we leverage this?

My work, at both an organisational and individual level, suggests that we are in a period of time where rapid development in human thinking and successful application of that thinking is required in organisations. Evolution is not automatically taking us down this path – as a species, our brains are simply not adapting fast enough to help us succeed without proactivity on our part. We are, metaphorically, in a world that requires us to 'up our game', but this is not happening through natural selection. We need to work mindfully with our brains; invest time and effort in how we are using the way it functions to best meet our needs and aspirations (and those of the organisations we serve). This is not only desirable, but better than waiting for a punctuated equilibrium scenario.

Outdated thinking is when we find it easier to develop our knowledge of a topic, for example marketing, than we do to think about the skills/processes required to be a successful marketing executive or build a successful marketing team. The latter requires real thought and emotional intelligence, while the former relies on the ability to recall and apply facts and information. In addition to these skills/processes, it is also critical that an organisation has an environment which fosters open thinking, risk taking and is based on trust. We need to feel confident enough to take risks and develop skills – knowing that we will be supported in doing so.

A VUCA world

Since 1987, thanks to the leadership work of Warren Bennis and Burt Nanus (1985), many of us involved in leadership and organisations have been talking about organisations operating in a VUCA world – a volatile, uncertain, complex and ambiguous world. An organisation's ability to be successful in a VUCA world relies on people being aware that there are no right answers, that how we think about what is happening and our ability to be flexible and creative in our responses to what is happening, especially under pressure, is what will enable our organisations to thrive and succeed.



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Scenario: The law of requisite variety in action

Imagine the CEO of a multinational company chairing a meeting of her senior leadership team. One of the senior leadership team has brought his two-year-old son, Michael, to the meeting because of a lack of childcare. Michael has no understanding of the purpose of the meeting (he may not be the only one!) and he has no idea about positional power, or how one is expected to behave in a senior leadership team meeting. A short time passes and Michael finds the conversation boring; he recognises it is not of interest to him and he does something about it. Michael notices that people are not paying as much attention to each other as they could. What a fabulous opportunity to explore the room, try out some of the pens on the flip chart, then escalate to loud whinging when asked to sit still again and be quiet, and so on. In this instance, the person who will keep going until they get what they want is Michael – only removing him from the situation will restore whatever order usually exists.

An example of the law of requisite variety: Do something differently

A colleague and good friend of mine remembers when she first started her role as a CEO of a housing association, 'I had a conversation with my team around how our meetings were going. One team member said that she got frustrated because we spent the first ten minutes "chatting" – she wanted to get straight down to business. The other four said, after a quiet moment, that they actually liked the first ten minutes, they felt more connected with their team colleagues and the balance of the meeting was more productive as a result. Needless to say, we continued to have the first ten minutes – other than when quick decisions were necessary – and the person who'd initially found it difficult, adjusted and came to enjoy the meetings more. Not everyone's cup of tea though!'

For me, this is exactly what the law of requisite variety is alluding to – doing something different than expected because it adds value and ensures that a way is found to allow everyone to get 'on board' with the new practice in their own way. It's also a highly emotionally intelligent (EQ) approach.

There is a culture that is obsessed with content and short-termism; as a consequence we may fail to appreciate what is going for us and/or others. The skills referred to here are applicable to all organisational challenges, including: business transformation, developing new markets and products, maximising blended work patterns, doing more but with fewer people, working smarter not harder, being more customer focused, sustainable and financially secure.

The law of requisite variety

Making a positive effort to learn how to use our brains even more effectively also relates to the law of requisite variety (Ashby, 1956). Ross Ashby developed the law as part of his work in cybernetics. The requisite variety law states that the element (or person) with the most flexibility controls the system. So, in the case of an organisation, the person with the most behavioural flexibility will control what is happening within a given situation. This is a real challenge in traditional organisations/business sectors, for example, the housing and insurance sectors.

Appealing though it might be, this is not a call to become loud or obstructive but quite the reverse – it is a plea to use different ways of thinking to create better decisions and possibilities. For example, it could be an interjection that resets the meeting ('let's take a break') or reframes a challenge or an opportunity ('can we look at this as reducing our salaries by 1% rather than making people redundant?'), or a suggestion for running meetings in a different way so there is more time for engagement (and fun, which is a great way of generating creative thinking). All of these things are possible, if you are getting the best out of your brain, not succumbing to the pressure responses of fight, flight or freeze (FFF) and are emotionally intelligent.

The Walt Disney Company

Interestingly, the law of requisite variety has a profound connection to the success of The Walt Disney Company. In 2020, Disney's net worth reached \$122.18 billion (Jeffries, 2021). The Walt Disney Company (DIS) today is a large and diversified Global 500 entertainment and media enterprise headquartered in Burbank, California. The company's vision is to 'entertain, inform and inspire people around the globe through the power of unparalleled storytelling...'

In the early days of Walt Disney's career, he treated his colleagues at his first studio as his family and was well-known for behaviour that was unusual (or flexible). For example, when Disney wanted to inspire others with his vision, he would start acting out the voices and characters he was thinking about, regardless of whether the meeting was about finance or the practical aspects of delivering a project. Whatever point Disney wanted his colleagues to see, he kept going until they did. Similarly, if he was in a creative team meeting and he thought practical concerns were being overlooked, he would pursue his point until others took it on board.

This is a great example of the positive use of flexing our thinking, with very clear and tangible positive results for an organisation. However, in his later years, Walt Disney's behaviour did stray beyond the positive aspects of being flexible, becoming increasingly dictatorial and intolerant as the company grew (Harris, 2006). Perhaps The Walt Disney Company could have been even more successful if this hadn't happened.

Improving behavioural flexibility

How can we work with our brains to ensure that we and our organisations thrive, so that we have more behavioural flexibility than before in our VUCA world, while keeping within the bounds of respectful, inclusive and fair organisations? Let's start with a concept for understanding our brain and then move into ways in which we can work with this understanding to create more thinking and behavioural possibilities for ourselves, our organisations, and our families and friends.

The triune brain model

Paul MacLean (1990) introduced the concept of a triune brain as early as the 1960s. MacLean's model of the brain's structure and function is still widely used today because of its ability to help us make practical sense of how our brains work and what we might want to pay attention to in order to keep our brains functioning well. For practical purposes, the model simplifies rather than fully explains the brain. It is based on three specific regions of the human brain:

1. The basal ganglia (the reptilian brain)
2. The limbic system (the mammalian brain)
3. The neo-cortex (the cognitive brain)

Each of these structures is described as being responsible for a specific group of mental activities.

1. Basal ganglia: The fight, flight or freeze (FFF) survival response and body systems

The oldest part of our brain – the reptilian brain. It has the capability to respond the fastest and will 'save us' from life-threatening danger very effectively (for example, have us step out of the path of an oncoming car before we consciously know that this is needed) or, conversely, triggering FFF responses in an unhelpful way (more on this later).

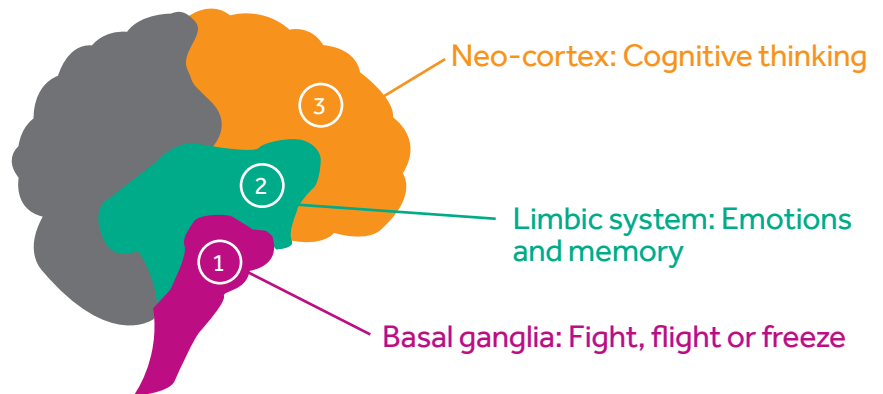
2. Limbic system: Emotions and memory

The second oldest part of our brain – the mammalian brain. It is on constant alert, scanning the external world for danger and, depending on the presence or absence of a feeling of safety, will either trigger positive or negative emotional states.

3. Neo-cortex: Cognitive thinking

The area of the brain which is by far the slowest and the final part to kick into action. It allows for rationale thought and reflection about what is happening both inside and outside of our brain.

Figure 1 The triune brain model



(Based on Cobb, 2017)

MacLean suggested that these structures develop in a bottom-up fashion, through evolution. Even more interestingly, we now have confirmation that this is how the brain functions (Jasanoff, 2018) – from the reptilian brain, through to the mammalian brain and then onto the neo-cortex. The brain works through our 'raw' emotional centre, then to our more discerning social/emotional centre and finally, if all is deemed well/safe, we can think about what is happening in a more abstract/strategic way. For an in-depth exploration, see Daniel Kahneman's award winning book *Thinking, Fast and Slow* (2011).

Example: Adjusting our behaviour

A wonderful coaching conversation I had the privilege to be part of, went something along the following lines.

Coachee (in an incredulous, indignant and frustrated tone): 'I had an idea for a trail-blazing and important meeting about diversity. I started to explain my motivation and ideas for the meeting to my colleague. When I stopped, you would not believe what my colleague asked me – had I booked a meeting room?'

I suspect the coachee is a big picture person and would not naturally need or want to know about practical details and her colleague was the reverse. Without one or the other developing the flexibility to communicate differently, this could have turned into a fraught undertaking, with many misunderstandings and possible opportunities missed, not to mention a lot of frustration on both parts, that would, no doubt, affect other projects/ parts of their lives negatively.

The bottom-up process of the brain

We now know that the brain works through our emotions, which gives us a clue about where we need to focus our attention and efforts in order to be successful and deliver success for others and the organisations we serve. As Daniel Goleman advocates, paying attention to the information we receive through our five senses, and the impact that has on us, is vital (2013). Only then can we accurately connect and calibrate our behaviour with others. Then we are able to flex our behaviour to deliver what is needed in a given situation, rather than have a standard/default behavioural response. In other words, we increase our choices/flexibility rather than reduce it. For developing your self-awareness see Steve Faulkner's Top 5 Self-Awareness Activities (2018).

An adjustment to behaviour might be understanding and managing our preference for speaking and someone else's preference for listening. In this way, you can speak as the other person prefers to listen (so that they have the opportunity to fully hear what is being said), rather than potentially creating confusion and disconnection, as speaking from our preferences may vary from the other person's cognitive processes. If we are embarking on a project together, would you like to hear about the big picture first or the details? Whichever you would like to hear about first, do you actually want to hear about the other? (See an example of this in the box on the left.)

We now know that the brain is more 'plastic' and interconnected than was previously thought and the triune division is more complicated than is suggested by MacLean's model, but this is a good starting point for the purposes of developing behavioural flexibility. An extension point is that we also know that the brain is massively connected to our hearts and our guts. To be aligned and energised in any role, including a leadership one, we need to pay attention to the messages we receive from all three organs, not just our brains (Wehrley, 2019).

Another example of this is covered by Daniel Goleman in his paper, 'The focused leader' (2013), where he cites research that shows that good leaders pay attention to their heart rates. They notice when their heart rates are rising and they do something about it before FFF starts to set in and our ability to react thoughtfully and exercise behavioural flexibility is over run by our reptilian responses that are concerned with fight, flight or freeze.

Perceptions of threat and pressure – how our brains have evolved

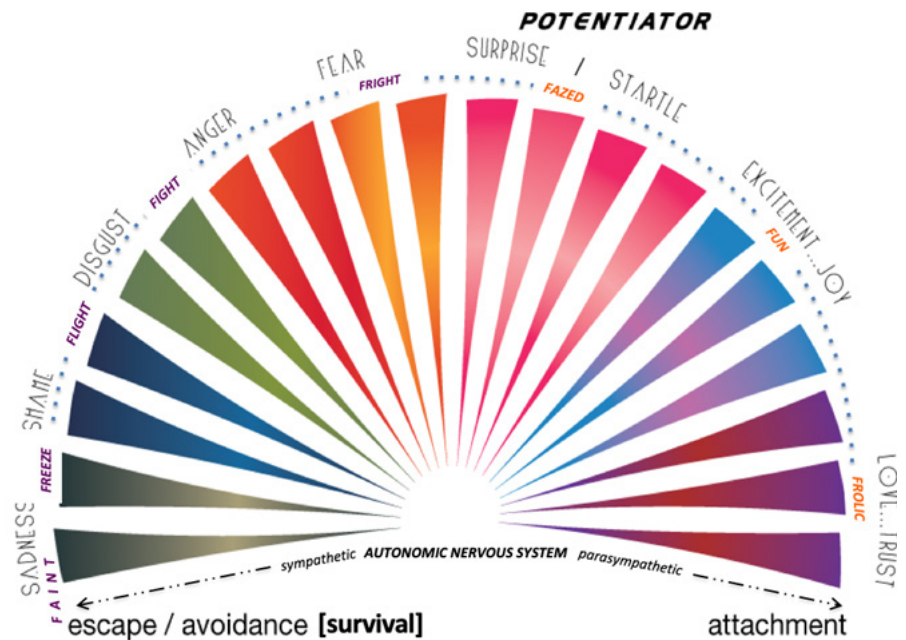
This is important to understand because what our brains perceive and respond to as pressure today, is often not related to how our brains evolved. In primeval times, having the blood move from the brain to leg and arm muscles in less than a blink of an eye, was extremely helpful when spotting a sabre-toothed tiger! It would have been unhelpful to have blood remain in the thinking part of the brain (your neo-cortex, which was considerably smaller then) because a thoughtfully constructed, behaviourally flexible conversation with the sabre-toothed tiger would have been less likely to result in survival!

Our brains do not (without intervention from us, which is the learning to support your brain imperative) know the difference between mortal danger and the potential annoyances of modern living. Therefore, there is a potential to continuously over-react to the world and put us in a downward spiral of negative emotional responses. This is called 'false activation' of our FFF response (Braive, 2016).

Pulling together the connection between our brains, our behaviour and our emotions, we can look at Figure 2 – this shows the eight basic emotions we all experience (Brown, 2018). When we experience a negative emotion – fear, anger, shame, disgust or sadness, our brain cells harden and are not open to forming the new neural pathways that are necessary to develop new ways of being, doing and thinking. When there is trust present interpersonally, we experience one of the 'positive basic' emotions that can move to joy or excitement – our brain cells soften and are open to forming new neural pathways, for example, learning, growth, or innovation.

At the cellular level, fMRI scans (video tapes of the brain) have shown that, at the most fundamental physiological level, human beings are wired to learn when the conditions for experiencing trust are present. This has profound implications for us and for our leadership. Much of the task of leadership is about enabling and empowering others to move forward – individuals, teams and organisations. We can quickly see how important it is to evoke trust in others, so that the opportunity for learning and sustained new pathways, both in our brains and outside of them, can occur. The importance of this point cannot be overstated!

Figure 2 The eight basic emotions



(Brown & Dzendrowskyj, 2018)

Applying what you have learnt about the brain

Make the most of positive emotions

A simple first point to learn is that focusing on our positive experiences and stories makes us feel good and the converse is true. Each time we revisit a negative story we evoke the same responses in our brains, with potentially the same intensity. Negative stories are five times more memorable than the positive ones (Wax, 2018). It's a point worth remembering – pay five times more attention to your positive experiences in order for it to have a lasting beneficial effect on your wellbeing and to balance your natural wiring.

Clear thinking

Another way of looking at this is, why would you undermine yourself with negative emotions that prevent you from thinking clearly? Athletes talk about 'thinking correctly under pressure'. They train under pressure so that they develop muscle memory of how to behave 'correctly' when under pressure. 'Correctly' means being flexible – considering and being open to lots of possibilities.

You will not be surprised to hear that to have a healthy brain and brain function, exercise, diet, recreation, sleep, and doing things that you find relaxing and you enjoy, are all important. Sara Davenport (2020) has written a comprehensive book looking at different aspects of our lives and how they might affect our brains. Based on her father's struggles with the onset of Alzheimer's disease, it covers a wide range of factors to take into consideration to help keep our brains healthy.

Exercise: Positive versus negative feelings

1. Write down three examples of when you felt energised, excited or joyful. Then, re-read and reflect on what you have written. How do you feel after you have done this?
2. Write down an example of feeling one or more of the negative emotions. Then repeat the process above.

Scenario: Thinking under pressure

In a rugby training session, an imaginary rugby ball is passed between the teammates with their eyes closed, while they are pedalling as fast as they can on stationary exercise bikes. The rugby players are put under intense pressure – physically and mentally – and through practise they become better and better at passing the (imaginary) ball without hesitation or forgetting who to pass to.

'In the moment' strategies

There are ways of managing your brain so that you have a choice about how to respond to a given situation. Here are some techniques that you can consider.

1. 5–5–5 breathing

One of the simplest and most effective ways of changing a reaction to negative pressure (for example, when your heart rate is rising, your gut is tightening and your blood is beginning to exit 'stage left' from your neo-cortex) is to breath. A great technique is called 5–5–5 breathing (and can be remembered by looking at your hand and noticing you have five fingers). The technique involves breathing in for five seconds through your nose, hold your breath for five seconds, and then let your breath out through your mouth for five seconds.

If you wear a monitoring device (like a Fitbit), then before you do the 5–5–5 breathing technique, note down your heart rate (bpm/beats per minute). (If you want to do this but do not have a device like a Fitbit, put two fingers on the thumb side of your wrist and find your pulse. Count the beats for 15 seconds and multiply by four – this is your heart bpm.) Typically, after doing just two or three rounds of 5–5–5 breathing, your heart rate will lower, your gut will start to unclench and blood will start to return to your neo-cortex; you will then be in a better position to take an informed view on what is happening around you and how you will respond. You can validate this by recoding the difference in your heart bpm at the start of the exercise and at the end.

2. Posture/body position

Our posture and body language offers huge possibilities for enabling us to be the best of ourselves. Amy Cuddy (a social psychologist) believes body language affects how others see us and can change how we see ourselves. She puts forward that standing in a posture of confidence (even if we don't feel it) can boost feelings of confidence (Cuddy, 2012).

3. Take time to examine your emotions

Give yourself the time to notice how you experience your emotions in 'real time', as they happen. Use this information to 'supervise' yourself and ask (kindly and with no judgement):

- Is this how I want to react?
- What in my experience has led to this reaction?
- How often do I have this type of reaction?
- Who can I speak to about this in order to assist me to move past behavioural patterns I no longer want or need?

And so on...

A word about neuro-linguistic programming

There are numerous techniques and apps available for thinking about how we think and communicate. However, I have yet to find anything as impactful at developing behavioural flexibility in myself and others as the techniques John Grinder and Richard Bandler managed to elicit from the great communicators that they studied when they developed neuro-linguistic programming (NLP) (Bandler & Grinder, 1990). NLP takes work and requires an open mind and a willingness to experiment. It is something you should experience rather than read about – I suggest you go and have some NLP experiences, watch YouTube videos, attend an NLP programme and see how NLP can help you develop your behavioural flexibility. Try it out and see what works for you!

NLP is the most outcome focused tool I have encountered and embodies what I have discussed here. Focus on the outcome(s) you and your organisation want to achieve and find ways of making them happen. Combine this with the courage to acknowledge when a decision you have made needs to be reversed, perhaps as more evidence or information is made available – then we can avoid the need for punctuated equilibrium to arise.

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