

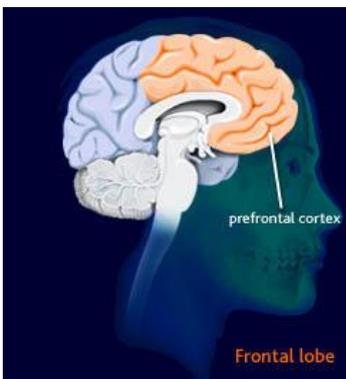
How the brain works to affect performance

By Amanda Bouch

Neuroscience is a growing area of research allowing us to identify what is actually going on in the brain. One fact that has become clear is that the human brain is a **social** organ. Its physiological and neurological reactions are directly and profoundly shaped by social interaction. Our brains are mostly busy processing information about other people and ourselves.

Think about this in relation to work – it's not about exchanging labour for money as far as the brain is concerned, but first and foremost about the social system. A computer-based Cyberball experiment showed people felt the same pain when rejected as they do with physical hurt, even after they knew no people were involved it was just a programme, they still felt the pain of rejection. Translate that to the workplace and it explains why people react the way they do, when they feel unrecognised, or are reprimanded, or find their pay is being renegotiated – all forms of rejection in the social system. They experience it as a neural impulse as powerful and as painful as a blow to the head. Most people learn to temper their reactions and may well appear outwardly ok, but they will limit their commitment and engagement, reluctant to do more than the 'jobs-worth'.

We humans position ourselves as 'rational man', as opposed to instinctive animal, but when we investigate the rational thinking part of the brain we discover that it is the smallest functional area



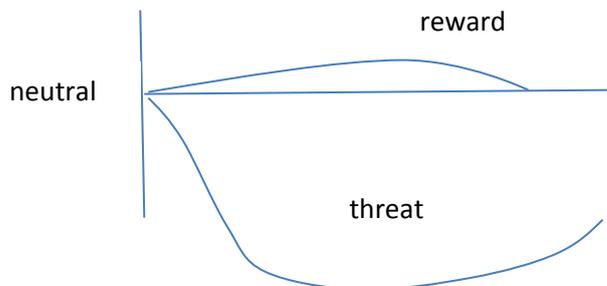
of the mind. This area is called the **Pre-Frontal Cortex**. It is the only part of the brain that is connected to all the other parts. However when the pre-frontal cortex (PFC) is working it uses a lot of energy; conscious thinking is effortful and can be exhausting, leaving us mentally tired. For this reason we naturally limit our mental resources and prefer to do things on automatic pilot. We embed patterns or habits and then work from the pattern, as this doesn't involve using the PFC and is much less demanding on the energy resources in the brain.

Most problems aren't solved rationally, in a laboratory experiment, when asked how they found the solution 60% people couldn't explain how they solved the problem - they just got an insight or idea. I expect you have found the same thing. When you are trying hard to think through a difficult situation and you can't find the answer, you go to bed, still mulling it over in your mind and ... in the morning the answer is there! To get these insights or ideas we need to suppress conscious thinking and allow the brain to make what is called 'weak connections'. Interestingly the state of pre-sleep is ideal for this kind of brain work and that is why we often wake up to find the brain has found the solution for us.

This is called the alpha state

If this conscious thinking part of the brain is so small, which part dominates? It is the limbic system, which is the part of the brain which is constantly making decisions about events on the basis of friend or foe? To or away from; reward or threat, this is at a basic instinctive feelings response level and a neurological mechanism that governs a great deal of human behaviour.

What is interesting here is that this is not a 50:50 equation, the BAD gets disproportionate attention. When something good happens, the reward feeling does give us a high.



However when something bad happens it hits us deeper, longer and multiple times the impact of the good. When the limbic system is aroused it takes away energy from the PFC, so a perceived threat has a significant impact on conscious rational thinking.

Just think of your own reactions to a threat ... anxiety is not a good state for problem-solving or creative thinking.

For maximum processing the ideal state is just on the happy side of neutral. A lab experiment showed this: people were given the same problem to solve. Beforehand one group were shown a reward situation and the other group a threat situation. The people shown the positive situation were 50% better at problem-solving.

How to minimise reaction to threat?

At the individual level:

What we need is effective ways of dealing with our emotions. When you suppress emotions, it still affects you and others. What works is cognitive change – this demands a quick reaction to stop the pattern kicking in. There are two ways of doing this:



1. **Emotional labelling** – if you define the emotional experience in a word or two, it automatically puts the brakes on and dampens emotions, putting you back in neutral. This works even better if you can say it out loud – has greater impact on self as well as letting others know what it is happening. Though you have to be careful!
Eg. “I’m experiencing annoyance” take some deep breaths and move on.....

2. **Reappraisal or reframing** –if you can see things differently you can change your interpretation of the event. One of the quickest ways to reappraise an event is to laugh at it. Or take a different perspective – how would a 5-year old see it?

Eg flight delay is not a reason to get frustrated, but an opportunity to catch up on work or reading undisturbed.

The more you understand about your brain the better able you are to manage your state.

At the organisational level:

The impact of this neural dynamic is often visible and described as ‘poor morale’. When leaders announce a strategic change, restructuring, downsizing, or say “can I give you some feedback?” or manage by ‘sticks’ or bullying, this is perceived as a threat and the employees’ brains become much less efficient. But when they create a good place to work, communicate expectations clearly, give people responsibility and decision-making authority, treat people fairly, encourage relationship-building etc, this triggers a reward response. People become more effective, more open and more creative, they notice information that their brains just don’t pick up under threat, they think better, manage pressures and feel intrinsically rewarded.

So if managers and leaders can understand how the brain works they can arrange things to minimise threats and enable reward responses. The SCARF tool, devised by David Rock, is useful in understanding how to frame messages to minimise threat. There are 5 social qualities to consider, where we experience threat:



SCARF

Status; Certainty; Autonomy; Relatedness; Fairness

Status

We are biologically programmed to care about status because it favours our survival, so we are constantly assessing how social encounters either enhance or diminish status. When people realise they might compare unfavourably to someone else the threat response kicks in, releasing cortisol and other stress-related hormones. Status is always comparative, as we’re seeing in the media these days with the furore about CEO salaries. It’s also interesting to note the differences in how people respond between hierarchical organisations and those with a matrix structure and vague job titles. Eg Government – hierarchical culture and currently suffering badly with the job cuts as people perceive loss of authority. Compare this with a co-operative or organisation like W. Gore, where you are evaluated by your peers and the top-down hierarchy doesn’t exist.

But it’s not just ‘big’ things like these, threat to status responses are triggered by many organisational practices such as the Annual Appraisal, 360 reviews, change programmes, competitive practices such as league tables, etc.

Research showed that actions such as praise and recognition trigger the same reward responses in the brain as a financial windfall. Learning and applying new skills and being rewarded for that with more interesting work can be as good as a promotion.

Certainty

As we humans prefer to work on 'automatic pilot' and not exert too much energy, we prefer situations of certainty. When things are the same, we don't have to think about them so much, but can get on productively. So when that certainty is rocked, we react against it. Suddenly we have to use the PFC to think and make new decisions!

When talking about change in the organisation, it is helpful to also make clear what is staying the same. This means the brain doesn't over-react and can put the change initiative into context and work with that part more easily.

Interestingly, this social factor comes into play when a person is undergoing learning and development – what they knew for sure is now being 'attacked' by new information and the brain resists changing. The limbic brain protects the certainty of what was and you have to work hard through the PFC to absorb the information, think the changes through, mentally identify the benefits of changing and make yourself take action. This is not a one-off, but needs building on to convince the brain that the new 'certainty' is better. Then the limbic brain helps you do it, because that's the now-current certainty.

Autonomy

We perform better when we are in control of what we do. Urgent last-minute demands thrown at us or a job which is highly reactive create stress. If someone takes control from us, we feel threatened and can go into a 'fight, flight or freeze' reaction. In that limbic state we can't think effectively, we are reacting at the emotional level.

When working with others, allow individuals to retain some control over what they do or you will find productivity drops significantly.

Relatedness



A threat from inside the group has greater impact on our neural system than one from outside. You see this frequently: when there is a threat from outside the group – it could be another department seeking to dominate or a competitor, the group pulls together to fight off that threat. However, when the threat comes from inside the group, it has the effect of breaking the group apart, which is much more damaging.

This may be one of the reasons why companies call in consultancies to handle major restructuring or change programmes – that decision has pros and cons; pro – the change is from the outside, so we are still a group, con – the change is from the outside, so we must fight against it.

Fairness

When a change is perceived as fair and being handled in a transparent way, the brain can get to grips with it quite quickly, because there is no threat of unfair treatment causing an emotional reaction.

This means that communication around change programmes needs to be open and frequent, so people can see for themselves the fairness of the situation. Otherwise the rumour-mill will take over and all kinds of unfair aspects will be cited, causing the 'fight, flight, freeze' reactions.

Bear SCARF in mind when planning and communicating change and you have a greater chance of effective implementation.

If you would like to discuss this further, please contact amanda@amandabouchconsulting.co.uk