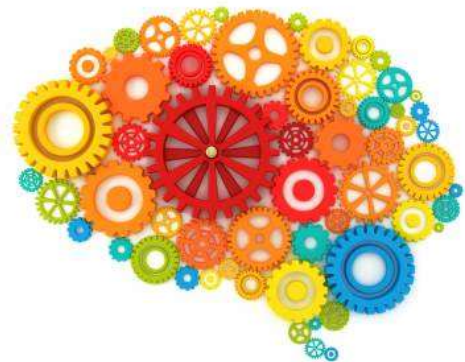


## ACTION LEARNING AND THE BRAIN: THE NEUROSCIENCE OF QUESTIONS

As experienced practitioners, we all know the power of Action Learning and the positive working conditions created in an Action Learning session. However, what if I told you that this was tied to the wiring of our brains?

If I were 20 years younger today and picking a degree, I would choose neuroscience. What we're learning now about the brain and its implications for life are amazing. Given my belief in the importance of these findings, I have studied applied neuroscience and worked hard in recent years to make connections between this new understanding about the brain and the way I think about talent and leadership development, including Action Learning.

Making connections like this is something our brains are very good at. In fact, making connections - or recognizing patterns - is one of our brain's specializations. The reason for this is simple: We are [bombarded with data](#). In fact, our brain has to take in up to 400 billion bits of information every second, and yet we are only capable of processing 2,000. This is because new ideas require work of the prefrontal cortex – the front, rational part of the brain - where we have what is called working memory, which is limited in resource.



The sheer magnitude of what we are processing demands that the pre-frontal cortex hardwires what it can so it can focus on processing the most essential bits. Therefore, we look for patterns and make connections to what we already experienced in the past.

One of the key reasons for this sorting is to determine what's safe and what's a threat. Hundreds of thousands of years ago, we needed to use this data to constantly make life and death decisions. We had to process decisions quickly to survive. When confronted with a bear in the forest, we couldn't stop to think rationally. Instead the brain needed to be able to immediately sense danger.

That same level of urgency may not appear to exist today. But nonetheless the modern world is very complicated and complex. Due to the complexity of what we're processing, and the speed with which our brains need to make decisions, our brains err on the side of caution and activate our Primary Threat Response when we think we see danger.

In the modern world, many of our threats - or perceived threats - are social, not physical. We are literally wired to be social – According to neuroscientist Matthew Lieberman, our need to connect with other people is more fundamental and basic than food and shelter. And one of the things we've learned about the brain is that it responds to social threat and social pain in the same way as physical threat and pain. In fact, we even use physical language to describe social pain with phrases such as “You broke my heart” and “You hurt my feelings.”

So while it may not seem to have much in common with the bear, the modern workplace frequently activates our [Primary Threat Response](#), or fight-or-flight instinct. When our Primary Threat Response is activated a number of things immediately happen:

- The stress hormone Cortisol is released and our heart rate and blood pressure go up
- We use more oxygen and glucose
- The limbic system becomes dominant and doesn't allow the pre-frontal cortex to do its best work. Working memory capacity decreases.
- Creativity, analytic thinking, problem solving, learning and memory are all impaired
- Overall – we experience decreased efficiency, effectiveness and productivity.

Now if we're facing a bear, this is the right response. But if we're in a meeting at work, it's less useful.



[David Rock from the NeuroLeadership Institute](#) has classified the main social triggers that activate our Primary Threat Response and created a model around them called the SCARF Model. The SCARF Model is made up of 5 domains: Status, Certainty, Autonomy, Relatedness and Fairness. These five domains have been shown to activate the same primary reward circuitry that physical rewards activate, and the same threat circuitry as physical threats. All of these come into play when we use Action Learning.

All of these come into play when we use Action Learning.

In this part, we look at the domains of Status, Certainty and Autonomy.

### **STATUS: Action Learning Flattens Hierarchy**

In a standard meeting, the leader will often bring a challenge to a team but stay slightly outside the problem solving, maintaining his or her status as leader and subject matter expert. The team may contribute to solving the problem but the dynamic is often more 'me vs you.' As a leader, I expect you to provide solutions, or as a leader, I will listen to your contributions but then make my own decision.

In Action Learning, the problem presenter is a member of the group. Once the problem is presented, anyone can ask a question of anyone else, and the team are accountable for working on the challenge together. Even the problem presentation helps to reduce the Status threat: The problem presenter is asked to present his or her challenge for no more than two minutes, limiting the biases and assumptions introduced. The Action Learning team are then responsible for drawing out the needed information through questioning. This reduction in status stops the fight-or-flight response and ensures people are more productive and effective.

## **CERTAINTY: The Structure of Action Learning Reduces Ambiguity**

I attended a problem solving workshop recently that didn't use Action Learning. We were assigned challenges to work on, divided into groups and left to work. The typical chaos ensued: People looked at each other to try to find out who would jump in as the natural leader. No one spoke and then two people spoke at once. I was so focused on thinking about the next smart thing I needed to say, I missed the comments of the two people before me. And being quite a structured person, I immediately wanted to understand where we were trying to get to - were we going to make a list of actions? Who was going to present these?



Action Learning has an established process and clear ground rule that statements can only be made in response to questions. Additionally, the coach is clear about timings and informs the group when the problem presenter will state what actions he or she will take as a result of the session. And over time, team members learn to anticipate the flow of a session, which reduces the threat of uncertainty and helps stimulate the creative juices.

## **AUTONOMY: The Action Learning Team Own the Solutions**

One of the places where Action Learning is very effective is when it's used for solving social challenges with partner organizations. I was responsible for an Action Learning program at Microsoft called Front Lines that is structured this way – it brings senior leaders from the Microsoft business to an emerging market, where they work with locally operating organizations to tackle socio-environmental challenges such as climate change, poverty, access to services and education. Now often when corporations take on this type of work they struggle with partnership element: Well-meaning corporate programs helicopter in and impose their plan on the third sector or emerging market.



Action Learning supports true partnerships - asking those who live there what their best solutions would be. It involves the partners in creating their own solutions and empowering local leaders. It creates true autonomy by involving all participants in a leadership process that they learn and can replicate.

One of the benefits that comes from this maintained autonomy is that engagement increases, which means team members have better access to their cognitive resources and are more likely to have insights, which enables them to solve complex problems.

Part 2 in the next edition of the WIAL newsletter will look at Relatedness and Fairness, and Shannon then shares how she has adjusted her coaching profession by applying the SCARF model.

Shannon Banks, Managing Director of Be Leadership, is a Master Action Learning Coach and WIAL Board Member based in the United Kingdom. She is also an experienced executive coach, certified by the NeuroLeadership Institute and an Associate Certified Coach (ACC) with the International Coach Federation. She can be contacted at [shannon@be-leadership.com](mailto:shannon@be-leadership.com) or by twitter [@shannonb](https://twitter.com/shannonb).

Written by Shannon Banks, MALC  
/published2016