The Neurology of Trust

Reason Trust and Distrust are so challenging.

The big challenge with building and maintaining trusting relationships is that the brain has trust and distrust networks - which are in various parts of the brain. The brain is forever scanning in interactions with others, with one key and profound question:

"Are you Friend or Foe?"

This question is hardwired and has been honed through our evolution – our lives dependent on answering this question correctly for our own survival. In the business context today, our actual life is usually not at risk – but our brain still spends its time unconsciously toggling between 'Friend and Foe'

The Brain's role in trust:

- We have two networks – one for trust and one for distrust.
- They are in two distinct parts of the brain
- The 'trust' generator is in the pre-frontal lobe or executive brain at the front, behind what we refer to as the third eye
- The 'distrust' generator is part of the oldest part of our brain, the reptilian brain which is at the base of the skull on the top of our spinal column.
- Once triggered one becomes the master and the other the slave, they cannot operate in tandem – it is either one or the other that dominates.
- They operate as a system. Thus, trust is not just an absence of trust – it is a whole different neural pathway

Furthermore, to make it even more complex, as part of our life journey, we are constantly (unconsciously seeking the answer to five key questions – that are precursors and create discernments about trust or distrust) for others, a situation, and our self.

Five Key Questions about Trust:

- **Protect:** How do I protect myself, and do I need to?

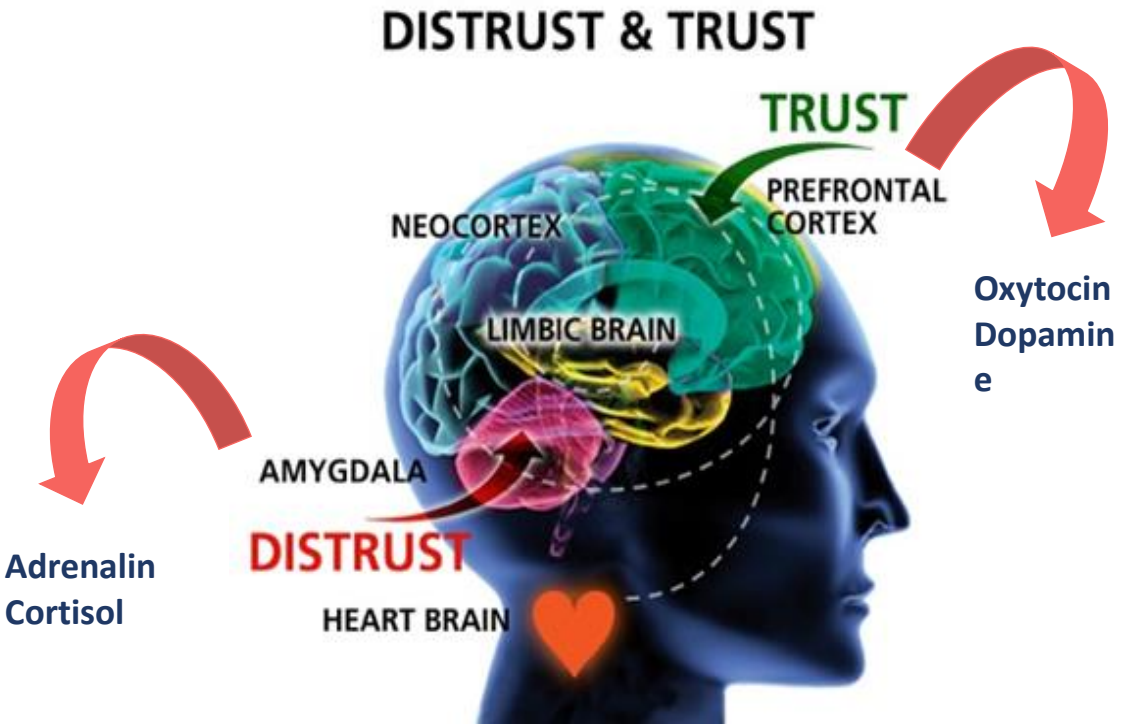
- **Connect:** Who loves me, who hates me, can I trust this person?
- **Belong:** Where do I belong and fit in?
- **Be Strong:** What do I need to learn to be successful?
- **Partner:** How do I create value with others?

Between our emotional brain (the limbic system) and the reptilian brain, here are two small glands referred to as the "Amygdala" and it is the firing of these that creates the triggering of our fear-based responses within the reptilian brain. These are automatic reactions, which are almost immediate, and they are designed to preserve our physical survival.

Distrust is also signaled through the Amygdala – and when triggered we interpret 'reality' through a fear-based lens.

Fear Based Responses:

- Fight
- Flight
- Freeze
- Fold
- Appease



There are also other hormones which play a role in this mechanism. When we are in high stress situations, not only Adrenalin and Cortisol flood the system as the survival response, but another hormone also called epinephrine spikes the heart rate and increases blood pressure, inhibiting our ability to connect and feel empathy for others. Interestingly, though moderate stress – as we have seen in the pressure performance curve from Phase 1, increases oxytocin release as in this state when facing a challenge, we will often turn to others for help to surmount it.

Other neuroactive chemicals including estrogen, increases sensitivity to oxytocin. The studies done in Professor Zak's lab, found that on average women released more oxytocin than men. This helps explain why women tend to connect more easily with other than men do. Thinking further about gender, testosterone is a potent oxytocin inhibitor, and is from 5-10 times higher in men than women. In Professor Zak's experiments in which synthetic testosterone was administered to men, compared to a placebo, those with the enhancement were less generous toward others and demanded more of them. High testosterone thus makes all of us self-focused and selfish. Both of which destroy the trust of others.

There are also seven universal threats that we need to be aware of, that are present in our interactions with others, and some are very prevalent in today's complex world.

Seven Universal Threats

- **Tone Threat:** judgmental or angry tone of voice is felt as a threat to the ego
- **Hurt Threat:** the threat to our physical safety
- **Risk and Punishment Threat:** taking risks, fear of failure and making mistakes
- **Exclusion Threat:** looking stupid in front of others, and being ostracised

- **Anger Threat:** fear of someone's anger toward us, not knowing how to respond, fear of aggression or violence
- **Territory Threat:** having our territory limited or people encroaching on our territory
- **Status Threat:** challenge to our power or status

Reflection Questions:

Threat	Examples of where / in what situations have I experienced this threat	What is the outcome of experiencing it? What have I done as a result? What impact has that had on me and my effectiveness? How might I deal with it more effectively?
Tone Threat		
Hurt Threat		
Risk & Punishment Threat		
Exclusion Threat		
Anger Threat		

Territory Threat		
Status Threat		

The above worksheet is available to download, you may use it to help your Mentee explore their patterns of behaviour when confronted with various threats.

To summarise, the establishment and maintenance of trust is in the pre-frontal cortex (pre-frontal lobe). This part of the brain is located toward the front, and it is the centre of our higher order functions – and because of this it is sometimes called the Executive Function.

Just like the Amygdala causes the release of the stress hormones Adrenalin and Cortisol – driving the survival and the ego or "I" response, the Pre-frontal lobe releases the 'happy' hormones of Dopamine and Oxytocin, driving the "We" response which is essential in the creation of trust.

If we process our experience through a fear-based lens then our bodies are flooded with stress hormones and good judgment gives way to defensiveness, aggression, or passive – aggressive behaviours. However, if we process our experience though our trust-based lens, our bodies are activated by those 'happy / pleasure / reward' hormones and we reach out to connect, belong and we become strong.

Thus, to sustain feelings of safety – which is needed for our brain to feel healthy – we have evolved these two distinct processes that are designed to protect us from those who will reject or harm us. These are rooted in our deep human drive to survive physically. And as they are also the centre of our trust mechanism, the reason re-gaining trust is so hard after it has been broken is

because we must regain mastery over the neurons that have been programmed out of our amygdala response in our primitive brain and re-access our executive brain.

Thus, self-reflection and trying out new responses is a critical learning process we need to embrace.