Resource created by Stephanie Hawryliw, R. Psych; resilienttogethertherapy.weebly.com

Trauma and Neural Networks

Neural Networks: The more times we experience something, the stronger our neural (brain) network gets for that experience. The stronger the network, the easier it is to recall that experience and the thoughts, behaviours, and emotions attached to it.

1st experience of something: - - - - - -

2nd experience of something: - - - - - - - - - - - - - - - - - -

3rd experience of something: ----------

Neural Networks for Core Beliefs: Core beliefs are our beliefs about ourselves and the world that we form based on our experiences over the course of our lives.

E.g. Core belief - I'm not good enough

Bullied for failing a test →

Friends leave me out →

Grandparent favours sibling →

I am good enough

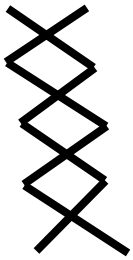
Parents comfort me →

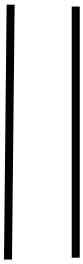
Invited to bday party →

Mom spends time with me →

Integrated vs. Isolated Networks

Healthy Networks are Integrated - when we feel moments of "I'm not good enough," we also remember moments when we have felt like we are.





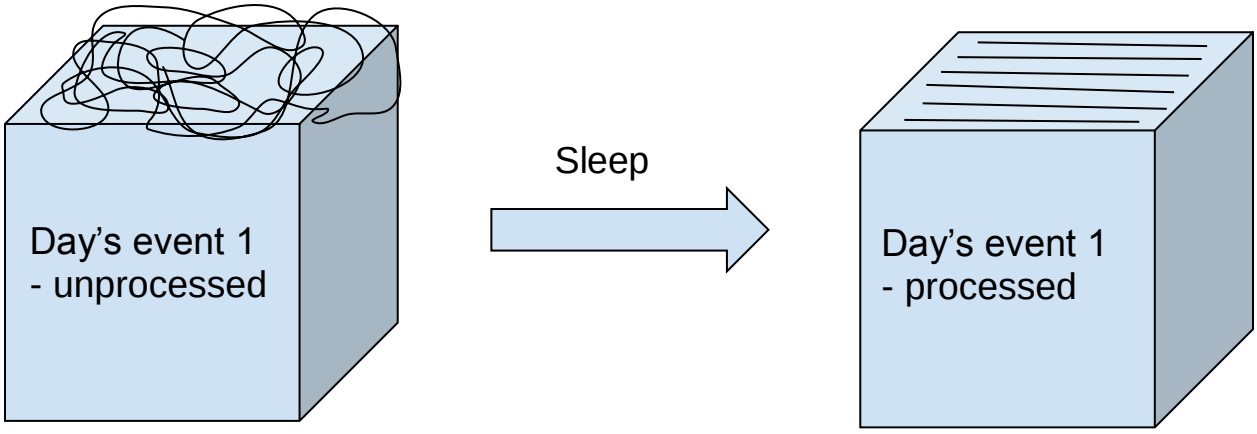
Traumatic Networks are Isolated - when we feel moments of "I'm not good enough," it feels absolutely and 100% true in that moment; we do not remember the moments that we feel that we are good enough

Adapted from the works of Francine Shapiro and Roy Kiessling

How our Brain Processes Events from the Day

Non-traumatic Experiences are Processed and Stored in a Healthy Way

Usually, when we go to sleep at night, our brain processes the events from the day. It looks at each event (e.g. an argument with a friend), puts it in the context of what else we know about the world and our other experiences (e.g. the way our friend has been there for us in the past), and gets rid of any unhelpful intense emotions (e.g. anger may be dulled to frustration when we wake up). That event is then filed in our memory in a neat and tidy way without any unhelpful intense emotions.



Traumatic Experiences are Stored Unprocessed:

When we have a traumatic experience, however, our brain does not process the day's events. It keeps all of the unhelpful and intense emotions attached to that memory and files the memory away without putting it in the context of what else we know about the world and our other experiences. As a result, when that memory is triggered, the same intense emotions are triggered with it (which we experience very intensely in our bodies). This can make it very difficult to react the way we want to in future situations. This can also mean that we react in ways that seem uncontrollable and like an overreaction in future situations that may seem small when we step back from them. This is also how our neural networks become isolate from each other.