

REWIRING YOUR MIND – STARTING NEW HABITS

PART ONE: USE YOUR BRAIN DIFFERENTLY



Coalition of Alcohol and Drug Educators

Dalgarno
INSTITUTE



USE
YOUR
BRAIN

QUOTE OF THE MOMENT

Habituation is a process that not only the mind is involved with, but the biology of the brain and body follow – in whatever the direction the ‘habit’ takes you. Andrew Murray called it the ‘law of human nature’.

KNOW THE LAW OF HUMAN NATURE: ACTS PRODUCE HABITS, HABITS BREED DISPOSITIONS, DISPOSITIONS FORM THE WILL, AND THE RIGHTLY-FORMED WILL IS CHARACTER.

ANDREW MURRAY



One decision that will always diminish the BEST RECIPE of you is drug use, both legal and illicit.

The Brains Limbic System deals with three key functions...

Emotions – Memories – Stimulation

One science team homed in on a network of structures called the extended amygdala loop. Amygdala-Hippocampus loop can be where emotional and cognitive memories are stored, activated and interact, it is a part of the brain that's involved in motivational behavior and it is very responsive to stress, and is also implicated in compulsive drinking...

<https://medicalxpress.com/news/2020-04-key-brain-region-binge.html>

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This network of circuits in the brain also contains a number of kappa opioid receptors, making it the team's top candidate to investigate for its role in regulating excessive drinking. To determine how kappa opioid receptors in the extended amygdala affect binge drinking, Becker's team specifically inactivated kappa opioid receptors in this region in mice.

How the amygdala and the hippocampus are influenced and in turn can also influence YOU.

Your Brain/Mind development has not only the physical/mechanical aspect, but it interacts with you too – your environment and all the stimuli in those interactions.

Author and Harvard Educated Shawn Achor stated...

“Positive emotions bathe our brains with chemicals that not only make us feel good but dial up the learning centre of our brains to higher levels. Consequently, we think more quickly and creatively, become more skilled at complex analysis and problem solving, and see and invent new ways of doing things.”

The Happiness Advantage: The Seven Principles of Positive Psychology that Fuel Success and Performance at Work

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It's REALLY important to note from that 'lay' statement that it is positive 'emotions', not 'chemically induced buzz reactions' that bring the positive creativity.

Pro-drug lobbyists have been trying to replicate this complex and enigmatic 'mind' process for years, and *unsuccessfully*.

Basically there is much more going on in our human mind, than mere 'chemical interactions' that we think we can manipulate to suit whatever mood, state or activity we wish. That experimentation still creates more harm and mess than any perceived positive outcome we think may happen.

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- Pre-frontal Cortex, is a big chunk in the front of the brain that sometimes is called the '**executive function**' part of the brain that focuses on controlling 'short sighted' behaviour whilst keeping longer term goals in mind. This is the part of the brain that gets more of a workout when you hit puberty – the second most important developmental phase of your brain. It controls processes like planning, self-control, problem solving and the consequentially decision making. (https://www.youtube.com/watch?v=i47_jiCsBMs)
- Remember one of our key **RESILIENCY** components – **Problem Solving**? You start undermining and sabotaging this developing capacity at this vulnerable stage, you really are stuffing up your chances for a number of things.

Decisions to help you become the **BEST RECIPE** of YOU. Drugs are **NOT** part of that **RECIPE**.

The implications are clear – resilience is closely aligned with whole brain activation and compromised with stress related (small brain) activation – activation of the **HPA axis** – (hypothalamic pituitary adrenal) Maximizing hippocampal wellness is directly linked to enhancing resilience. *Key aspects to maximize hippocampal wellness are:*

1) Quality Sleep 2) Exercise 3) Nutrition 4) Safety (Being/feeling safe and secure)

We'll look more at these in a later session

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Safety is a key issue, because when we feel unsafe it sets chemical reactions going and mess with our Hippocampus and amygdala, parts of our brain that deal with emotional and cognitive memory and storage – so what makes you ‘feel’ a) unsafe b) afraid c) insecure? Now all these are types of ‘fear’, but all have different sources and different automatic (often) resources – FIGHT, FLIGHT or FREEZE.

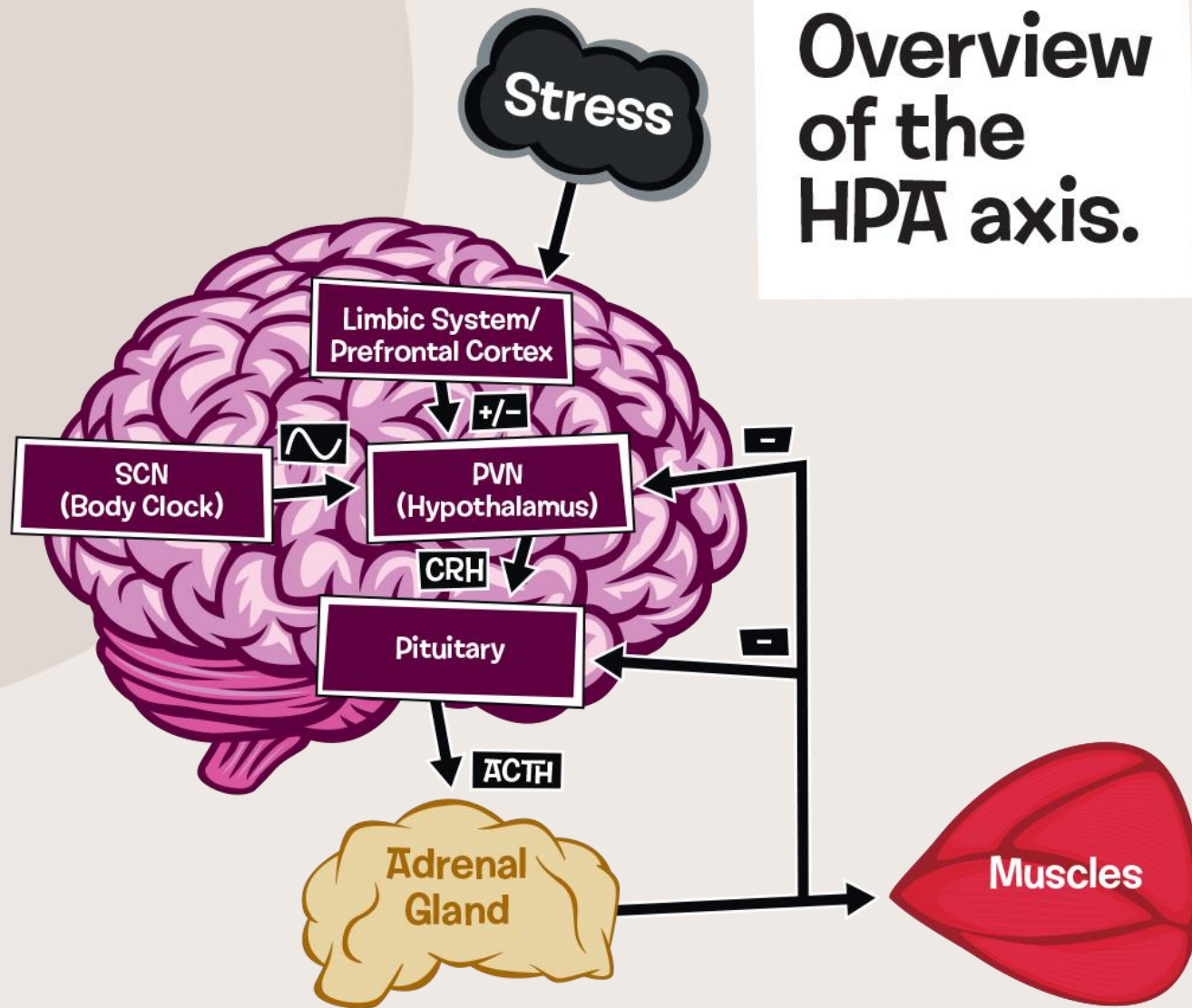
The ultimate result of the **HPA axis** activation (Hypothalamic-Pituitary-Adrenal (HPA) Axis – What’s sometimes called the body’s STRESS SYSTEM is to increase levels of cortisol in the blood during times of stress. Cortisol's main role is in releasing glucose into the bloodstream in order to facilitate the "flight or fight" response.

LOOKING AFTER YOUR EXECUTIVE FUNCTIONS

2-MINUTE NEUROSCIENCE:

PREFRONTAL CORTEX (PFC)

Overview of the HPA axis.



— Indicates negative feedback. + Indicates positives feedback.



FAST FACTS



- Neural networks are moldable and not fixed.
- Neural connections have the capacity to change the patterns of firing.
- The role, function and development of the amygdala is a key component in the development of resilience.
- In a nutshell – the hippocampus seems to be a powerhouse to foster resilience. A study conducted in Cambridge, with survivors of a traumatic disaster (the collapse of a subway in downtown Seoul), demonstrated that hippocampal strength (activation of the hippocampus) is a clear protective factor in managing trauma, and the absence of hippocampal activity increased the prevalence of posttraumatic stress disorder among the victims of trauma (Benoit & Anderson 2012; Ros-souw 2013).
- The study found the stronger the connection between the hippocampus and the prefrontal cortex (up-regulated), the more the activation of the stress response is controlled (down-regulated) (Benoit & Anderson 2012).
- It is well demonstrated in research that the environment changes the neural networks (Kandel 1998; Kandel & Schwartz 2013)



HOW **NOT** TO SAY YES TO
PSYCHOSIS INDUCING **WEED!**



“Marijuana Use Leads to Greater Opioid Death Rate”

<https://youtu.be/W6VDC0H7zIA>



HOW **NOT** TO SAY YES TO
PSYCHOSIS INDUCING **WEED!**



“Cannabis, Psychosis & Developing Brain.”
Appearing on SBS INSIGHT <https://youtu.be/NrbHdT3ZaWs>

REWIRING YOUR MIND – STARTING NEW HABITS. PART ONE.

Strengthening Your BUNGEE Rope – Filling Your Wheelbarrow with good stuff!

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