



Behavioural Control

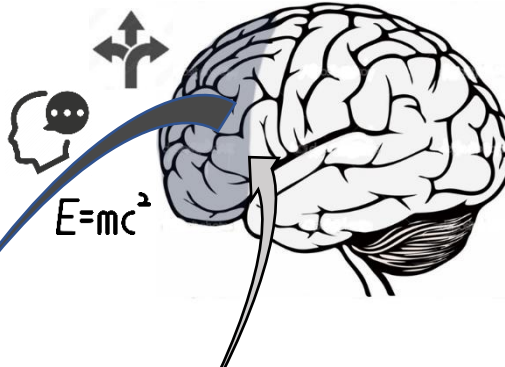


Fine Tuning the Thinking vs Reactive Brain
To Be Successful

Frontal Cortex

Awake, Aware, Thinking, Planning, Consciousness, Imagination, Abstract thought, Consequences, Decisions.

Controls, Directs Modulates



Informs, Alerts, Modulates, Gives emotional & historical context

↑ Sleep, exercise, diet, meditation
↓

Posterior Cortex

Past Events and Emotional Memories, Emotions: fear happy empathy sexual, Subconscious, and Automatic Behaviour, Activating. Zombie



Integrating Inputs from



Outputs

Muscles, movement, Speech, Body functions



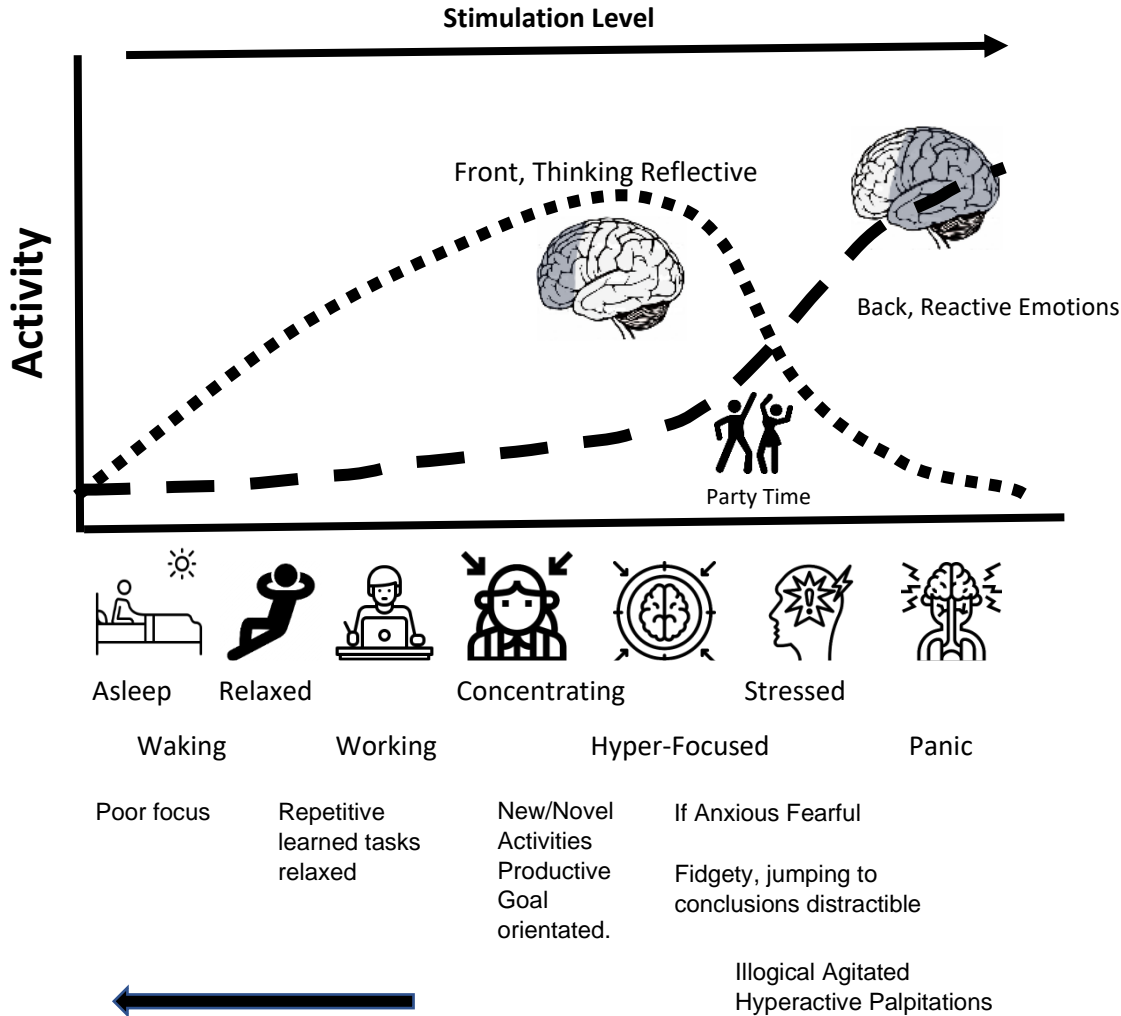
The PFC

The primate prefrontal cortex (PFC) has the extraordinary ability to represent information in the absence of sensory stimulation, the foundation of abstract thought. The PFC generates our mental arena, and subserves our highest order functions, such as abstract reasoning, working memory, high-order decision making, planning, and organization, providing top-down control of attention, actions, and emotions.



EFFECT OF INCREASING STIMULATION

Stimulation initially activates the thinking part of the brain. As stimulation becomes more intense, the reactive posterior part of the brain takes over and the thinking part is deactivated. Behaviour then is reactive, good for quick decisions such as when playing sport or fighting for survival. If emotionally comfortable enables celebrations, fun, parting. If anxious then stress impulsive decisions, panic.



ADD is when the brain is not stimulated enough for demands.

If relaxed empathetic

Drinks, Party mode, Dancing, Rave

PRE FRONTAL CORTEX FUNCTIONING

The Pre Frontal Cortex is exquisitely sensitive. Increasing Noradrenaline in the PFC has an inverted U effect. Initially NA enhances functioning, then it actively takes the frontal lobe "offline" as the back brain takes control of behaviour. As shown by the crossover of the graphs. Resulting in spontaneous, emotional, active, behaviours such as survival, sport, partying and dancing.

Medications such as Ritalin, Dexamphetamine and Guanfacine enhance the PFC functioning so improving cognitive control. Dosage and timing is critical due to narrow inverted U.

ADHD is when the brain is over aroused for the situation.