NEUROSCIENCE IN COACHING

Presented by

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Anamika is a UK trained Business Psychologist with two and a half decades of organisational and leadership experience in Business Psychology and Advertising. She helps business professionals nurture their strengths and build sustainable careers. Using Business Psychology coaching and assessment tools and techniques, Anamika works with executives across levels to create and leverage their personal brand, facilitate growth and strengthen leadership skills. At CCG, she helps deliver results-based solutions to clients across industry sectors. Anamika has a Post Graduate in Advertising & PR from IIMC, New Delhi, MSc in Business Psychology from the University of Westminster, London and Leadership training from Center of Creative Leadership, Gainsboro, US. She is also a member of Association for Business Psychologists, UK.
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Dr. K. Jayasankar Reddy completed his M.Sc in Psychology and Ph.D in the area of Neuropsychology. He also did his postgraduate program in Clinical Neurophysiology (EEG, EP, ERP, EMG & Brain Mapping) from the faculty of Medicine, Department of Neuro Sciences, Sri Venkateswara Institute of Medical Sciences University, Tirupati, India. Presently he works as an Associate Professor of Psychology, CHRIST, (Deemed to be University). He also guides a team of research scholars for the award of M.Phil, Ph.D. degree and Post-Doctoral fellowships in the area of Cognitive Neuroscience and Neuropsychology. He has the span of 18 years of experience in academic, research and consulting in Neuropsychology and in Cognitive Neuroscience.
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PRIME MODEL

P : Precision
R : Rigor
I : IP Creation
M : Multidisciplinary
E : Excellence
WHAT IS NEURO COACHING?

**Neurocoaching** is a fusion of applied neuroscience, performance psychology and neurolinguistics.

The study of the brain has become of increasing interest and importance to the field of human evolution and development.

As coaches, it’s important to understand how the brain works to develop coaching techniques that align with how the brain naturally functions.
THE TRIUNE BRAIN

➔ Neuroscientist Paul D. MacLean formulated a model of the brain in the 1960s, describing the brain in terms of three distinct structures that emerged along an evolutionary path.

➔ Although this model is a highly simplified explanation of brain activity and organisation, it provides an easy-to-understand approximation of the hierarchy of brain functions.
THE REPTILIAN BRAIN

➔ **Consist of** : Basal ganglia, structures derived from the floor of the forebrain

➔ **Functions** :

Distinguish between threatening and non-threatening stimuli

Our innate and automatic self-preserving behavior patterns, which ensure our survival and that of our species (Feeding, Fleeing, Fighting etc.)
**Limbic Brain**

- **Consists of**: Amygdala, Hypothalamus, Hippocampal complex and cingulate cortex.
- **Functions**: Motivation, Emotions, Memories, Stimulations
- Limbic system is also responsible for the 'fight or flight response'.
NEOCORTEX

→ **Consists of**: The neocortex is part of the cerebral cortex (along with the archicortex and paleocortex - which are cortical parts of the limbic system).

→ **Functions**: It is involved in higher functions such as sensory perception, generation of motor commands, spatial reasoning, conscious thought, and in humans, language.
APPLICATIONS OF NEUROSCIENCE COACHING

➔ Marketing : Marketing
➔ Communication : Motivation, Goal Setting
➔ Stress Management : Mindfulness
Current Trend in Marketing: NEUROMARKETING

1. The new brain – thinks (Rational data)
2. The middle brain – feels (Emotions)
3. The old brain – decides (Takes input from both and pulls the trigger) [TARGET]
Eye tracking allows the market researcher to identify which items capture someone's interest and attention. How does it help?

➔ First, eye tracking makes it possible to tell whether customers even notice a package on a cluttered store shelf, a product display in a large store, or a given link on a cluttered website screen.

➔ Second, market researchers can use eye tracking to discern whether these marketing efforts actually hold customers' attention, or whether they are quickly bypassed as the customer goes to look somewhere else.
MOTIVATION

Motivation is what drives and sustains a person to act towards a goal. Understanding and applying neuroscience can be done through -

➔ **Stimulus - Response Learning**

The reward system uses a major neurochemical pathway, the mesolimbic Pathway. The star neurotransmitter of the reward system is dopamine and this is released primarily by the VTA (Ventral Tegmental Area).
GOAL SETTING

A goal is a desired result.

Having the backing of neural networks set up to best support your clients in achieving their goals is important. When we get to the point of actually taking action the primary motor cortex, supplementary motor area, premotor cortex, cerebellum and basal ganglia. The basal ganglia seems to act as a motor control hub in integrating information from inputs and then outputting in response.
STRESS MANAGEMENT

➔ MINDFULNESS

Mindfulness meditation can be thought of as the practice of attending to present moment experiences and allowing any emotions and thoughts to pass without judgement. It can involve activities such as focusing on specific physical sensations.

- Attention regulation : Anterior cingulate cortex
- Body awareness : Temporo-parietal junction
- Emotional regulation : Amygdala
Neurolab Video Plays
The ‘HOW’

➔ How the brain actually works and what that means for your Coaching.
➔ Neuroscience underpins many Coaching methods, tools, ideologies and strategies.
➔ It explains why some things work and how some things don’t.
APPLICATION OF NEUROSCIENCE INTO COACHING

➔ Cognitive Profiling
➔ Emotional Intelligence Profile (EIP3)
➔ Biofeedback Technique
➔ QEEG Profiling
➔ Neurofeedback Technique
BASICS OF BRAIN ANATOMY & FUNCTIONS
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Areas of our brain associated with emotions and cognitions such as the prefrontal cortex, the amygdala, and the hippocampus are not hard-wired.
They are ‘plastic’.
Circuits in our brain change in response to experiences.
BIOFEEDBACK FOR COACHING

➔ Offers objectives parameters and insights into disbalances in physiology as a result of stress.
➔ Speeds up the process in re-integration of burn-out and aids in prevents down-time due to stress,
➔ Improves the learning of clients to better guard their boundaries,
➔ Improve performances and has them better deal with high pressure at work.
WHAT IS BIOFEEDBACK?

➔ Visualizing and training physiological activity
➔ By using these signals as real-time feedback, people can learn to become aware of usually unconscious processes, thereby allowing them to self-regulate physiological processes in order to improve their health.
➔ Ultimate goal of biofeedback is to gain more control over physiological processes and influencing behavior that leads to imbalances in these processes.
HOW DOES A BIOFEEDBACK SESSION WORK?

➔ Biofeedback Demo
WHAT ARE THE ADVANTAGES?

➔ Creating awareness of physiological processes
➔ Active role and participation of the client
➔ Holistic approach of body and mind
➔ Non-pharmacological and non-invasive
➔ Complementary to existing therapies
WHAT IS NEUROFEEDBACK?

➔ Non-pharmacological and non-invasive.
➔ Focuses on optimizing the brain
MODULATE BRAIN ACTIVITY

EEG

Delta 0 - 4 Hz
Theta 4 - 8 Hz
Alpha 8 - 12 Hz
SMR 12 - 15 Hz
LoBeta 13 - 21 Hz
HiBeta 21 - 35 Hz
Gamma 35 - 45 Hz

Deep Sleep
Coma
Distractability
Inattention
Daydreaming
Light sleep
Drowsiness
Relaxation
Mental Alertness
Physical Relaxation
Muscle Inhibition
Attentive wakefulness
Alertness
Hyperactivity
Impulsiveness
Busy-Head
Cognitive Processes
Learning
Memory
HOW DOES A NEUROFEEDBACK SESSION WORK?

Neurofeedback Demo
NEUROFEEDBACK FOR SPORTS AND PERFORMANCE

➔ The two key points for performance in sports are stress management & improving focus.

➔ To improve an athlete's performance
   It is important to capture and record bodily functions before, during and after training or competition.

➔ By acquiring, analyzing and understanding the ideal individual levels of the bodily functions an athlete can reach his maximum peak in performance.

➔ Neurofeedback within a corporate environment can also be used to optimize focusing and for cognitive enhancement.
QUESTION & ANSWER SESSION
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Thank you