

BASIC

Certification Guide

by Zengar



The Zengar **Basic Certification Guide**



NEUROPTIMAL.
ADVANCED BRAIN TRAINING SYSTEMS
TRANSFORMING LIVES SINCE 2006

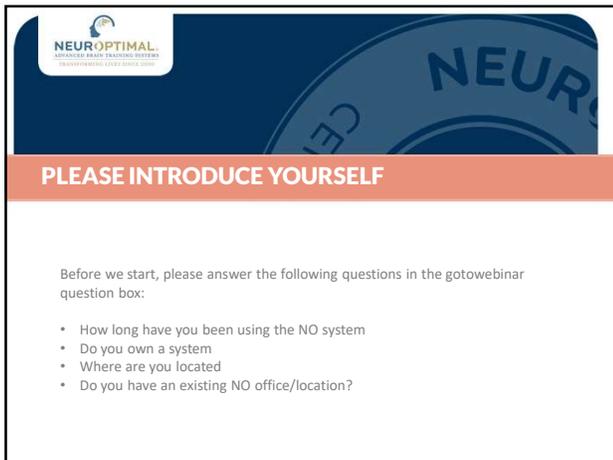
NeuroOptimal® NO3

Basic Certification Course- 2019

Presented by Zengar Education
Department and Your Certified
Instructor

NEUROPTIMAL
CERTIFIED BASIC TRAINER

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PLEASE INTRODUCE YOURSELF

Before we start, please answer the following questions in the gotowebinar question box:

- How long have you been using the NO system
- Do you own a system
- Where are you located
- Do you have an existing NO office/location?

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NEUROPTIMAL.
ADVANCED BRAIN TRAINING SYSTEMS
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WELCOME TO THE NEUROPTIMAL® COMMUNITY

- NeuroOptimal® is a **General Wellness Product** as determined by the FDA
- Your **Dynamical Neurofeedback® Personalized Brain Fitness Tool**
- **Brain Training for Personal Transformation**
- Welcome to your new role as a **NeuroOptimal® Wellness Provider/Trainer**



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MEET THE FOUNDERS...

Dr. Valdeane Brown,
President



www.neuroptimal.com

Dr. Susan Brown
Senior Vice President



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MEET OUR LEADERS...



Samantha Diavatis
Director of Operations

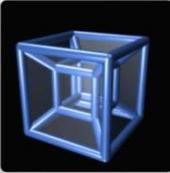
Alex Théoret
Director of Productions



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'BASIC CERT' GOALS TO UNDERSTAND:



- The method the **Brain** uses to 'Communicate' with itself
- The premise behind **Neurofeedback**
- The **History of NF** and specifically **NeuroOptimal**
- Understanding the **Zengar History** therefore, the communication process of NO
- The difference between a '**Linear NF system & the Dynamical Neurofeedback**' training process'
- **DIFS** – The 4-D model
- **Technical Information** such as "Running a Session", Media Downloads and NOMP

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A presentation slide with a dark blue background. At the top left is the NeuroOptimal logo. At the top right is a circular seal that says "NEUROOPTIMAL CERTIFIED BASIC TRAINER". The main title "GOALS CONTINUED..." is in a red banner. Below it is a list of bullet points.

- The NO3 process
- Role of the NeuroOptimal® Wellness Provider & Role of the Client
- Recognizing and tracking 'Shifts'
 - Change- A Natural Characteristic of life
 - NeuroOptimal® detects 'changes' or 'differences'
- Answering Client questions & concerns Branding, Philosophy and Language of NeuroOptimal®
- Resources available to you through PASS: (how to log on to a Zen Connect, basic maintenance of your system and very basic troubleshooting)
- Business/Marketing for your NeuroOptimal® office

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A presentation slide with a dark blue background. At the top left is the NeuroOptimal logo. The main title "MODULE 1" is in a red banner. Below the banner is an image of a wooden shelf with several colorful books. At the bottom, there is a single bullet point.

- *The Foundation of NeuroOptimal® is based on this information*

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A presentation slide with a dark blue background. At the top left is the NeuroOptimal logo. The main title "The Philosophy & Theory" is in a red banner. The background image shows a human head in profile, filled with a complex, colorful network of nodes and lines, representing neural activity or a theoretical model of the brain.

The Philosophy & Theory

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BRAIN BASICS

What we Know About the Brain

- Your Brain is the center of your **Central Nervous System (CNS)**. It is a sophisticated command and control center.
- It is estimated that the human brain has approximately 100 billion (100,000,000,000) neurons and **each neuron** may have as many as 7,000 **synaptic connections** to other neurons

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The Brain...Sand on a Beach-

- Is like a tiny strobe light, **flickering** on and off
- Producing a **chaotic dance**
- **No rhythm** and **no pattern**
- However, each **flicker influences** others to flicker
- Sometimes they **dance together** smoothly other times separately almost clashing altering the landscape
- Just as a small sound can trigger an **Avalanche of electrical impulses**



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BRAIN DYNAMICS:



- **The Brain** is the most complex **DYNAMICAL** structure known to the Universe
- It is able to process massive amounts of information, develop responses and apply these responses for increased efficiency and mastery.

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The Brain is Dynamical

- The **Brain** is ever-changing
- Through research we have learned of **Neuroplasticity** as the **Brain's** way to constantly change and evolve after any damage
- Every time we learn something new it is making a structural change in the **Brain**
- The **Central Nervous System (CNS)** communicates with itself through the detection of change

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BRAIN DYNAMICS

<p>THE BRAIN IS INHERENTLY GEARED TOWARDS GENERAL (BUT NOT ABSOLUTE) SELF-REGULATION BASED ON INFORMATION</p>	<p>NO NEED TO TEACH A CHILD THE 'BEST' WAY TO WALK - WITH EXPERIMENTATION THE BRAIN DISCOVERS AND DEVELOPS INTERNAL BALANCE & A NATURAL GAIT UNIQUE TO THAT INDIVIDUAL</p>	<p>BRAIN PROCESSES AND ASSESSES FEEDBACK (AS INFORMATION) FROM ITS OWN MUSCLES & MUSCULAR-SKELETAL SYSTEM ABOUT ITS POSITION AND STABILITY IN SPACE</p>
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Process Variability



- Infinitely cycling & self regulating
- No ABSOLUTE values that are inherently 'best' or the "amount" of activity required for specific functions.
- It always varies from **Brain to Brain** and it always varies **with time** for that same **Brain**

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TRANSFORMING THE WAY WE LIVE

The CNS Detects Changes: DIFS (as information)

- Duration
- Intensity
- Frequency
- Shift

Resulting in Personal Transformation supporting general well being (a personalized journey unlike that of anyone else).



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TRANSFORMING THE WAY WE LIVE

WHAT WE NOTICE ABOUT A HEALTHY SYSTEM...



- The system is **flexible**. It is able to respond quickly to environmental changes and turbulence.
- It is also **resilient**, able to adapt to changes in the ever-changing environment without worry.

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TRANSFORMING THE WAY WE LIVE

MODULE 2



THE PARADIGM SHIFT IN NEUROFEEDBACK

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WHAT IS NEUROFEEDBACK ?



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What is Neurofeedback?

Neurofeedback is a process of measuring the EEG (electrical activity) Electroencephalogram

We can call it Neurofeedback®, NF, NeuroOptimal, NO

It is the process of training the brain/CNS (*central nervous system*) to learn to respond to the changes in the electrical activity that is emitted from the scalp



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NEUROFEEDBACK

Neurofeedback is considered a gentle, painless and non-invasive method of restoring effective balancing within the Central Nervous System

linear

DYNAMICAL



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NEUROFEEDBACK - 2 BASIC PARADIGMS

<p>LINEAR NON-DYNAMICAL NF-PROCESS USES A SOFTWARE PROGRAM THAT MEASURES CORTICAL ACTIVITY IN 2-WAYS</p> <p>AMPLITUDE FREQUENCY</p>	<p>NONLINEAR DYNAMICAL NF®-USES A SOFTWARE PROGRAM THAT UTILIZES 4 WAYS TO DETECT THE CHANGES IN CORTICAL ACTIVITY:</p> <p>DURATION- INTENSITY- FREQUENCY SHIFTS</p>
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WHAT DOES IT DO AND HOW DOES NF WORK?

- The Neurofeedback process involves the use of a software program, EEG amplifier and Sensors on the head.
- This process measures the electrical activity that is measured from the scalp (a summation of electro-magnetic information)
- Linear Systems believe this process *helps a person learn to become relaxed and/or focused by providing **real-time information as to how their Brain is performing.

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Navigating the Beam

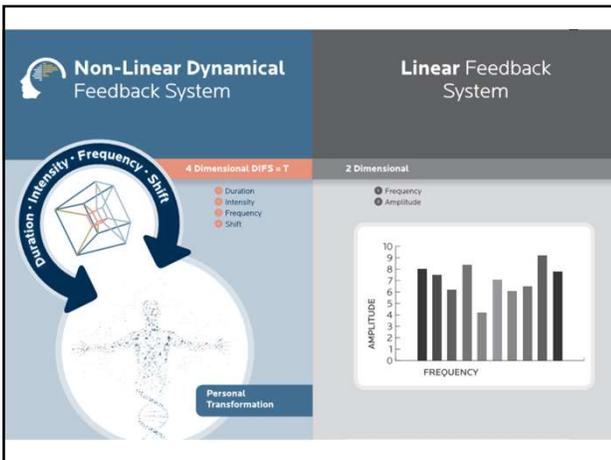
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LINEAR MODELS

- The **linear model** believes that practitioners need to affect the strength (amplitude) of the signal (by **augmenting and inhibiting a specific frequency**). The frequency was *chosen by looking at pre-recorded activity under different conditions (eyes open, closed, reading, counting by 7's starting at 783) this is called a **QEEG**, (*Quantitative Electroencephalogram*). This **Linear approach** uses **thresholds** that are static bars that 'trigger' the sound, thereby initiating the feedback process.

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Non-Linear Dynamical Feedback System

4 Dimensional DIPS + T

- Duration
- Intensity
- Frequency
- Shift

Personal Transformation

Linear Feedback System

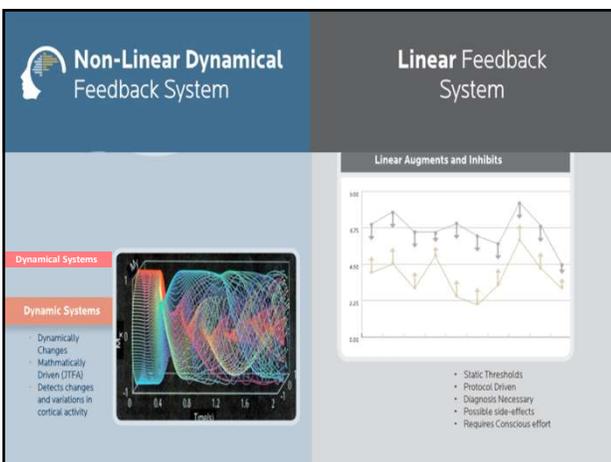
2 Dimensional

- Frequency
- Amplitude

AMPLITUDE

FREQUENCY

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Non-Linear Dynamical Feedback System

Dynamic Systems

- Dynamically Changes
- Mathematically Driven (DTFA)
- Detects changes and variations in cortical activity

Linear Feedback System

Linear Augments and Inhibits

AMPLITUDE

FREQUENCY

- Static Thresholds
- Protocol Driven
- Diagnosis Necessary
- Possible side-effects
- Requires Conscious effort

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Non-Linear Dynamical Feedback System

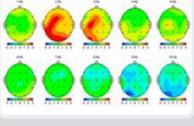


Non-Linear Dynamical Process

- Focus on Resilience and Flexibility
- No Diagnosis required
- Expertise built into the system
- Dynamically responds to each individual
- 100% non-invasive

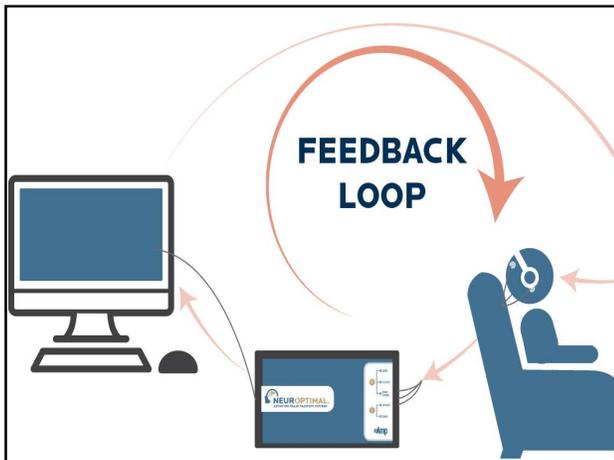
Linear Feedback System

Linear Process



Many times requires a QEEG to measure then the technician creates a protocol based on that data. Belief: that critical activity in that moment is representative of future activity throughout protocol. With a Linear system a technician is always responding after a cortical event has occurred.

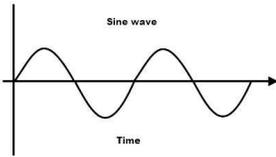
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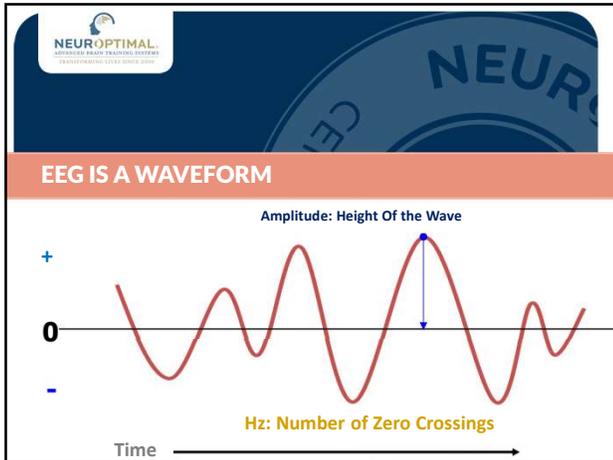
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NEUROPTIMAL
OPTIMIZING BRAIN FUNCTION SYSTEMS
TRANSFORMING LIVES SINCE 2006

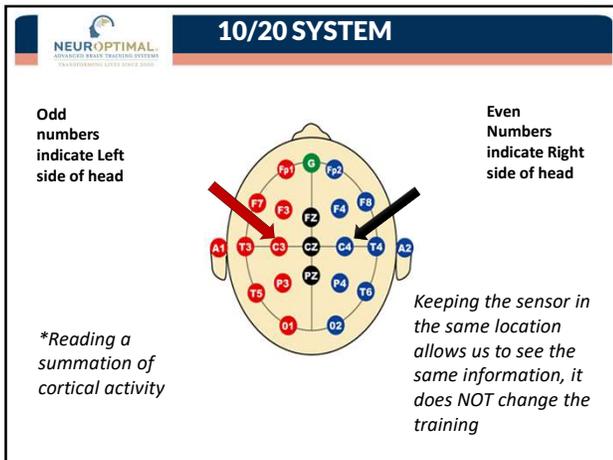
SO HOW DOES IT WORK AND WHAT ARE WE MEASURING?



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WHY NEUROFEEDBACK HELPS

DISORDERS ARE EXACERBATED BY STRESS; AS THE BODY RESPONDS TO STRESS IT NATURALLY CREATES 'PATTERNS OF ELECTRICAL ACTIVITY' IN

AS ENVIRONMENTAL TRIGGERS GET ACTIVATED EVENTUALLY A PHYSICAL SYMPTOM WILL MANIFEST.

THE PROCESS OF GENERAL NEUROFEEDBACK WILL TRAIN A DIFFERENT RESPONSE BY USING THAT FEEDBACK LOOP. (PREVIOUS SCREEN)

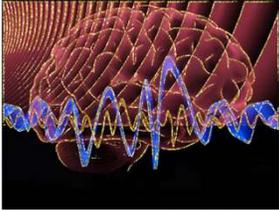
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NOT EVERYTHING OUT THERE IS NF

Entrainment & Migration Systems

- Sound Systems
- Binaural Beats



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MODULE 3



*THE HISTORY OF NEUROPTIMAL**

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HISTORY OF NEUROPTIMAL*

“Creating a Non-Linear System in a Linear World”

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Zengar Mission Statement

Zengar Institute Inc.

The Zengar mission is to create, deliver and support the most effective and safe brain training system available in the world today.

The purpose of this endeavor reflects the mission of its founders- to relieve suffering

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A FEW HISTORICAL HIGHLIGHTS IN THE FIELD



Discovery of **SMR**
(Sensory Motor
Rhythm) 14 Hz
Barry Sterman

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ALPHA/THETA PROTOCOL



The Alpha/Theta -
Peniston Protocol-
for Addictions

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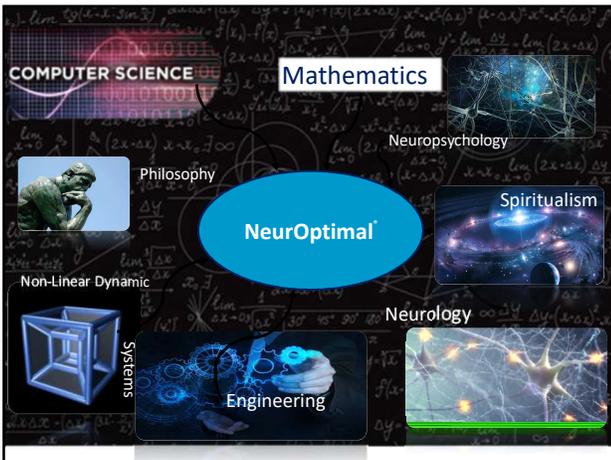
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EFFECTIVENESS PROVEN SINCE 2002

LINEAR NEUROFEEDBACK AS A TREATMENT MODEL FOR ADHD



Theta-Beta Ratio and Alpha State Training for better focus- Joel Lubar

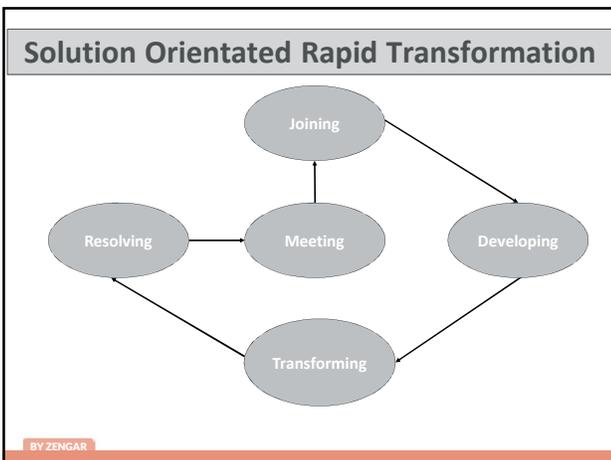
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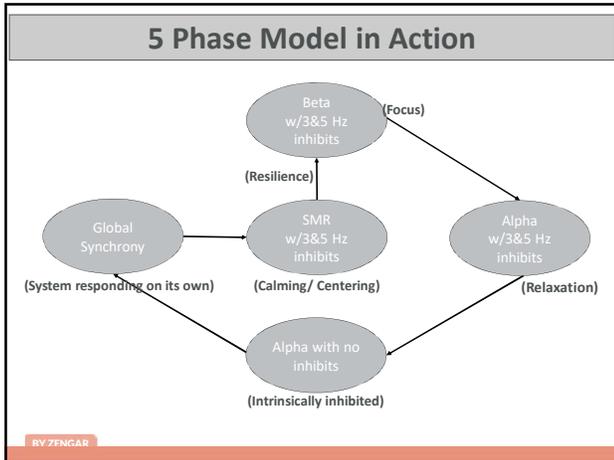
COMPUTER SCIENCE **Mathematics** **Philosophy** **Neuropsychology** **Spiritualism** **Neurology** **Engineering** **Non-Linear Dynamic** **Systems**

NeurOptimal

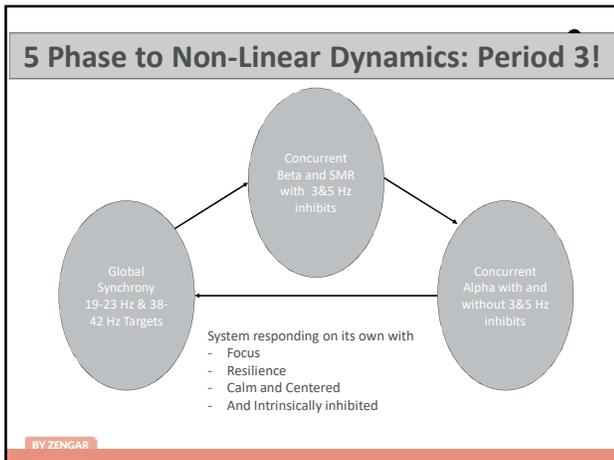
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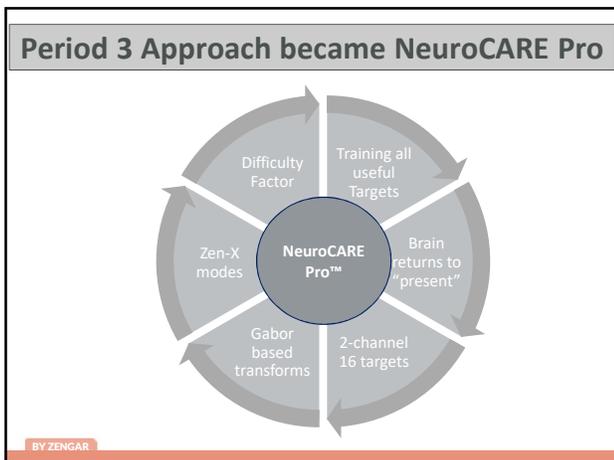
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TRANSFORMING LIVES SINCE 2002

CARE® MODEL IN NEUROCARE PRO



Comprehensive
Adaptive
Renormalization of the
EEG

- We simply give information to the **CNS**
- **JTFA** is used in the NO process- this **mimics the method of communication** used naturally in the **CNS**
- **Renormalization**, though non-linear dynamical
- **Transformation**

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TRANSFORMING LIVES SINCE 2002

OUR (NOW HISTORICAL): VERSION 2.0

- Transitioned into full Auto-Navigation
- No need to set 'Difficulty Levels'
- Completely allowing NO to 'dance' with EEG
- Additional Media Options



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NEUROPTIMAL® TODAY

NO3



 Microsoft

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ADVANCED BRAIN TRAINING SYSTEM
TRANSFORMING LIVES SINCE 2000

1993-2000

- 5 Phase Model
- Period 3

2003-2018

- NeuroCAREPro
- v.2

2018

- NO3

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NEUROPTIMAL
ADVANCED BRAIN TRAINING SYSTEM

MODULE 4



WHAT IS NEUROPTIMAL® AND BASICALLY HOW DOES IT WORK?

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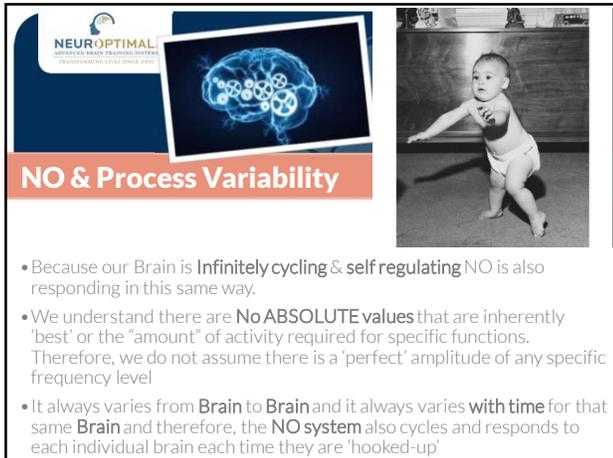
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WHAT IS NEUROPTIMAL®



- It is **safe**
- **No** need for a **diagnosis**
- It is **training** not treatment
- It is a set of proprietary Mathematical Transforms-
- **JTFA and NDS** (Nonlinear Dynamical Systems)
- Unique **Time-Frequency Envelopes (TFEs)**

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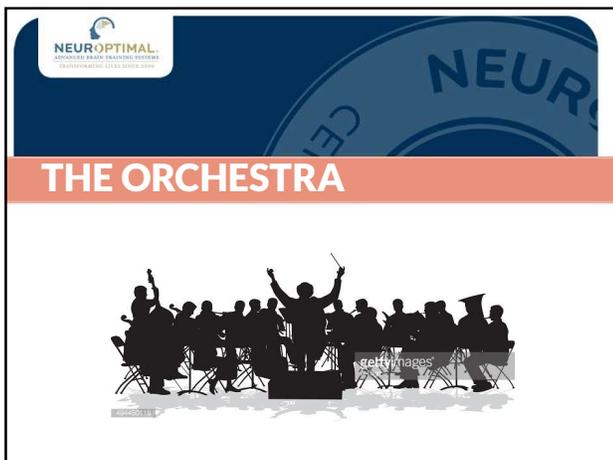


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TRANSFORMING LIVES SINCE 2006

NO & Process Variability

- Because our Brain is **Infinitely cycling & self regulating** NO is also responding in this same way.
- We understand there are **No ABSOLUTE values** that are inherently 'best' or the "amount" of activity required for specific functions. Therefore, we do not assume there is a 'perfect' amplitude of any specific frequency level
- It always varies from **Brain to Brain** and it always varies **with time** for that same **Brain** and therefore, the **NO system** also cycles and responds to each individual brain each time they are 'hooked-up'

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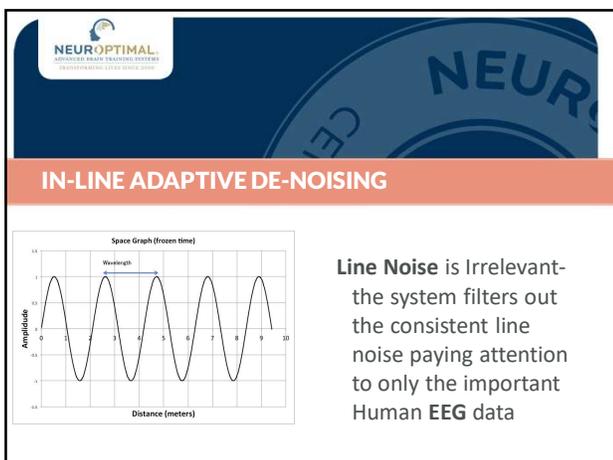


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THE ORCHESTRA

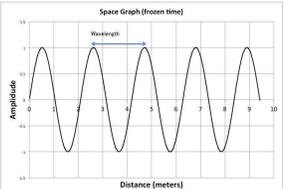


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IN-LINE ADAPTIVE DE-NOISING



Line Noise is Irrelevant- the system filters out the consistent line noise paying attention to only the important Human EEG data

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**NeuroOptimal®
Detects Change**



Change is a characteristic shared by all living beings.

Change is the only characteristic NeuroOptimal® detects, and is referred to as 'information'.

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NEUROPTIMAL® DETECTS SHIFTS IN EEG

- Shifts in EEG are best understood in terms of "Fluttering"
- While the Brain dances on the cusp of Shifts the EEG "Flutters" just the same as the wings of hummingbirds

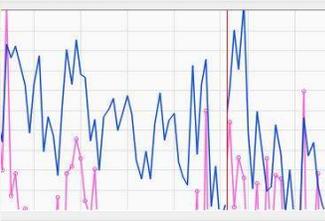
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Modified via Preferences Editor

Device ID: 0x1124::NI-VISA-10001: SN 4439

Notch Filter: Notch 60 Hz

Start Test Stop Test Clear C



Test Remaining

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Fluttering



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THE ELEGANCE OF CAPTURING THE EEG FLUTTERING

- **NeuroOptimal®** can virtually ignore **linear** measures like Power, etc.
- Using Unique, Proprietary **Time-Frequency Envelopes** or TFEs
- **NeuroOptimal®** captures **EEG Fluttering** and this leads to
- **Interrupts** or Pauses in the Sound
- Heard as **“crackling”** or **“static”**
- Informing the **Brain** that it’s about to **Shift**

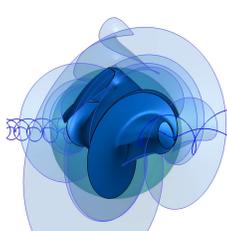


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FUNCTIONAL TARGETING

- This is how the Brain receives **crucial information** about itself via the mirroring of **NO**
- The ‘**Dynamical Range of Variability**’ or Fluttering around the different ‘**Time-Frequency Envelopes**’ (TFE)
- Allowing for **individualized optimal balancing** as determined by that **Brain**



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NONLINEAR DYNAMICAL SYSTEMS



- This **non-linear, dynamical approach** mirrors ‘**information**’ (*changes in cortical activity*) micro-second by micro-second
- And then the **CNS** (central nervous system) will respond by learning a **new pattern of cortical activity**
- Many experience the wishes for comfort as transforming improving their over-all wellness.

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Not Diminishing Turbulence...

- That's looking at Frequency and Amplitude based methods
- Assessment is irrelevant
- Diagnostically Agnostic
- **Comprehensive and Adaptive Training:** not "One size fits all" and NOT a "Plug and Play" that assumes it is all the same training.

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"DON'T GO THERE!!"

Welcome to **The Treatment Zone**



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NEUROPTIMAL® IS NONMEDICAL

- There is no diagnosis necessary
- No treatments
- No protocols
- No therapy
- No stimulation
- No entrainment or migration



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NEUROPTIMAL® BENEFITS

- The benefits are **subtle** changes that occur naturally at different times for different people. In children it may look like they just **matured**.
- It is not uncommon for people to suddenly feel they are better but not recognize when the change occurred.
- This is why we suggest **tracking feelings and changes** using our **Progress Tracking Tools**, or in a journal to measure the process over a period of time to realize how the body has "matured" over the process.



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Let's Take A Ride...



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DYNAMIC SYSTEMS CONTROL PROCEDURES:

- **Extrinsic Constraints-**
 - Anything that limits the range of variability in nonlinear systems
- **Chaotic Perturbation**
 - Randomly changing individual controls (like Linear systems do)
- **Entrain & Migrate**
 - Sound systems- 'Listening System', Binaural Beats etc....
- **Synchronization through Chaos**
 - *The NeuroOptimal® process*

entrainment

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EXTRINSIC CONSTRAINTS

Medications

Light & Sound Therapy

Linear Neurofeedback



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CHAOTIC PERTURBATION

Chasing Chaos to see what might work...

HERDING CATS

Randomly Changing Controls until you discover something that you believe might work



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ENTRAIN & MIGRATE

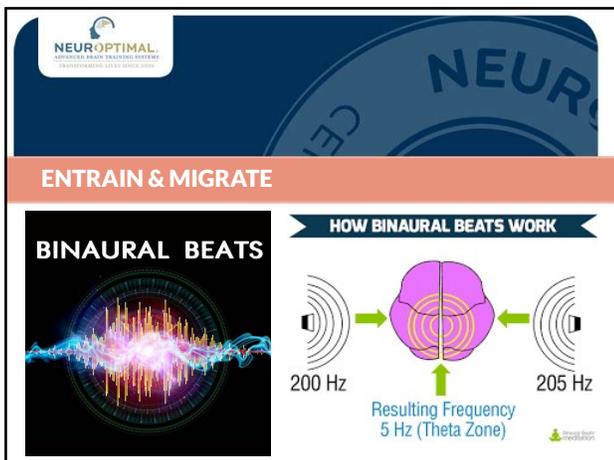
BINAURAL BEATS

HOW BINAURAL BEATS WORK

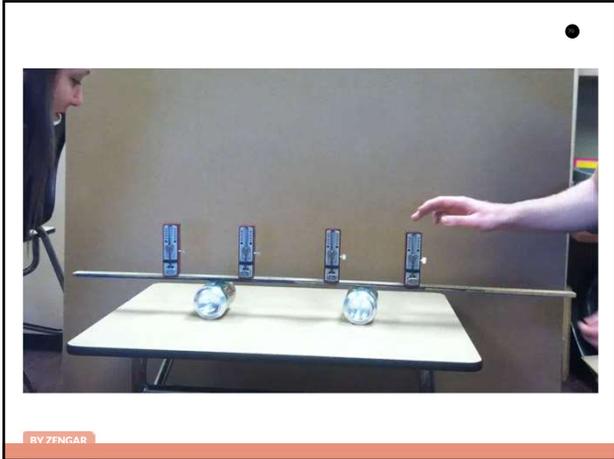
200 Hz

205 Hz

Resulting Frequency 5 Hz (Theta Zone)



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Making Sense of the EEG Chaos...

So, using a Control Procedure called **'Synchronization through Chaos', JTFA, a mathematical process** is able to measure and give feedback (data) to the CNS about the cortical activity

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DIAGNOSTICALLY AGNOSTIC

- Therefore, with the **NeuroOptimal®** process it doesn't matter if the individual has a **diagnosis or a condition.**
- The Mathematical Software program gives **Information** that is Individualized and 'fed-back' for personalized **Optimal Training.**
- We will **not** do anything different with our process, the system will mirror the information and the individual will readjust for their own 'Optimal' as their body determines is best for them.

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WHAT DOES NEUROPTIMAL® DO?

- ANALYZES SHIFTS OR FLUTTER IN THE ELECTRICAL ACTIVITY THAT IS BEING RECORDED**
- SAMPLES DATA 256 TIMES PER SECOND.**
TRIGGERS AN INTERRUPTION OF SOUND
- THE BRAIN SEEKS SELF-REGULATION BY USING A RE-ORIENTATION PROCESS**

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WHAT DOES THE BRAIN DO WITH THE INFORMATION?

- When the 'flutter' is detected by the NeuroOptimal® system the brain notices and adapts/ or self regulates by returning to the present moment.
- The brain perceives the interruption (at a non-conscious level).
- The interruption is the 'feedback' that triggers the brain to reorient and self-regulate

BY ZENGAR



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THE BRAIN SELF-REGULATES

- NeuroOptimal® provides the notification to the brain to self regulate, as well as it can, depending on its needs, with its abilities and limitations.
- As this 'feedback' facilitates the brain regaining its intrinsic resilience and flexibility.



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MODULE 5



THE TECHNICALITIES OF RUNNING THE NO SYSTEM

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THE GETTING STARTED VIDEO

Want to learn more about NO3?
Watch this webinar presented by NeuroOptimal® creator Dr. Valdeane W. Brown himself.
[WATCH NOW](#)
Or, watch this webinar by Samantha Diavolis, in French: [WATCH NOW](#)

When can I upgrade my system?

Located on the Zengar website-
Within the PASS community

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THE COMPONENTS OF NEUROOPTIMAL®

NO3





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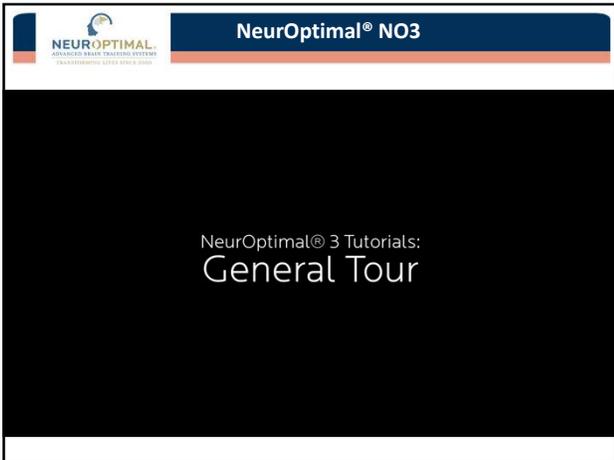
OPEN YOUR SYSTEM AND WE CAN JOURNEY TOGETHER

Navigating Zengar NO3

Basic Concepts, Controls and Functions

- How to Add (and edit) a Client
- Add a Location
- Adding a Trainer
- Starting the Session
- After Session Views

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NeuroOptimal® NO3

NeuroOptimal® 3 Tutorials: General Tour

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Resources for Learning How to Run NO Sessions

- Video Library
- Facebook NeuroOptimal® Community Group
- Facebook NO3 PASS Support Group
- Documents in PASS
- Forms in PASS
- PASS forums
- New User Webinars
- PASS Webinars
- Basic and Advanced Certification Courses
- Business Building online workshop
- ZenConnect
- YouTube Zengar Channel

Running NeuroOptimal® Sessions:

This Getting Started Manual will guide you through the process of running Client Sessions. This manual and our Tutorial Video Library (located in the Tools menu within NeuroOptimal®) both provide you with all the information you need to run effective Client Sessions. While this is only the tip of the iceberg in terms of what is available to you in NeuroOptimal®, it is all you NEED to know to get the stage for effective Client change. When you are ready to learn more you can explore the following resources:

Resources Guide:

- Video Library in the NeuroOptimal® program
- Facebook "NeuroOptimal® Community Group"
- NeuroOptimal®/ZENGAR PASS Support Group
- Documents in PASS
- Forms in PASS
- PASS forums
- New User Webinars
- PASS Webinars
- Basic and Advanced Certification Courses
- Business Building online workshop
- ZenConnect
- NeuroOptimal® YouTube channel

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I Don't See Trainer Or Location

- Press & Hold on the word **Client** or **Session** and select **Show Trainer & Location**
- The **VAULT** expands to reveal **Trainer** and **Location**
- **Grab and Drag** the edges of the **VAULT** to resize it as you like
- **Grab and Drag** the **Windows Title Area** at the top of the **VAULT** to reposition it
- Your new **Preferences** will be remembered the next time you start **NO3**

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Client List within the VAULT

Client	Session	Trainer	Location
De****, S*****	December 21, 2017 08:53	Default, Trainer	Default
De****, M****	January 28, 2018 01:39 PM	Default, Trainer	Default
	January 27, 2018 10:33 AM	Default, Trainer	Default
	December 12, 2017 10:06	Default, Trainer	Default
De****, L****	March 02, 2018 07:14 AM	Default, Trainer	Default
	February 27, 2018 07:50 A	Default, Trainer	Default
	February 26, 2018 03:52 P	Default, Trainer	Default
	February 13, 2018 06:41 A	Default, Trainer	Default
	February 11, 2018 05:34 P	Default, Trainer	Default
	January 30, 2018 02:22 PM	Default, Trainer	Default

Professional

 SEARCH
 ⌘ - Search
 + - Position
 ⌘ - No Sessions

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What Can I Do With A Session?

- **Right Click** on a **Session** – NOT the **Header** – and you will see all of the options that are available to you
- **Personal** will not have a number of these options: eg **Playback This Session**, **Tunnels** and **Waterfalls**
- Let's choose a **Session** and select **Playback This Session**
- You'll see the **Matrix Mirror** pop up along with the **TRAIN Player**
- The **Media Player** interface has also been visible and we'll explore it later

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Some Windows Are Rounded

- The **TRAIN Player** and **NO Media Player** both have rounded corners
- They can not be resized but you can **Grab and Drag** them wherever you want and they will open up where you left them last
- The “X” in the upper right corner of the **TRAIN Player** will stop **Playback** of the **Session** and close the **TRAIN Player**
- You can **Grab and Drag** the **Progress Bar** to move to a different time in the **Session**

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The Matrix Mirror: Introduction

- The earliest versions of **NeuroCARE Pro™** used the **Matrix Mirror**
- **Spectra** and **Targets** were layered on top of each other and you had to **Grab and Drag** each of the **16 Targets** to change their **Thresholds** throughout the **Session**
- **NO3** brings back the **Matrix Mirror** with some new Features – and no longer having to **Grab and Drag** each **Target**
- The **Matrix Mirror** integrates **High Hertz** into the new, default **20 Targets**

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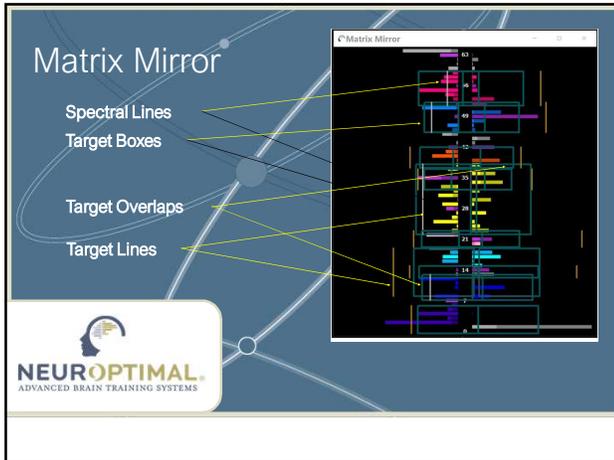
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The Matrix Mirror: Introduction

- You can change the vertical scale of the **Matrix Mirror**
- You can **separate Spectra** and **Targets** and set a different **Time-Frequency Scale** for each
- You can migrate the **Time-Frequency Scale** of one to the other
- If **Spectra** and **Targets** are in differentially sized **Windows** they will overlay in the same sized **Window** but will remember the separated sizes when you return.

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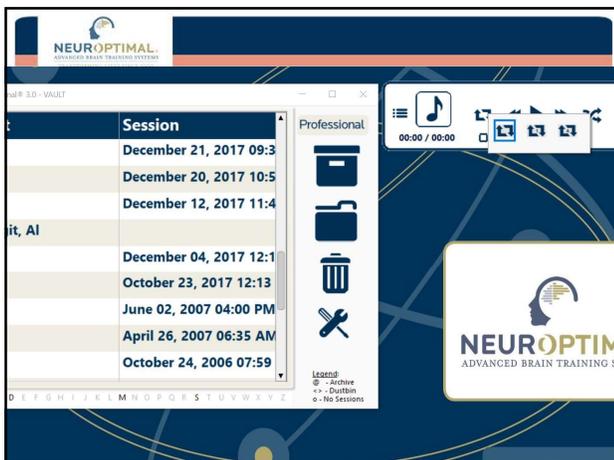
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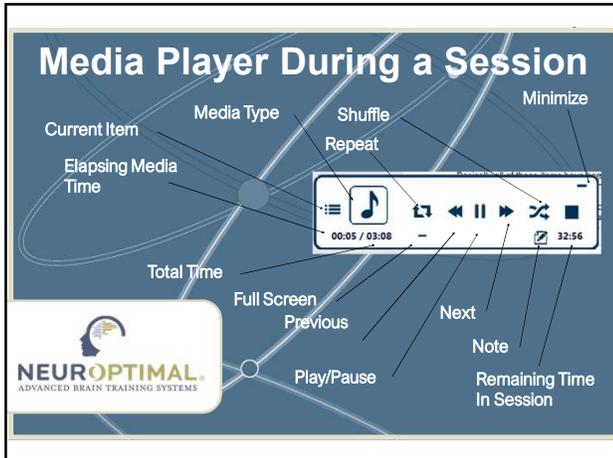
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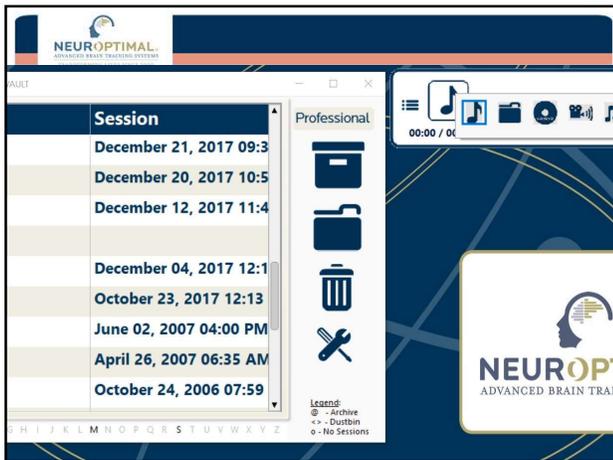
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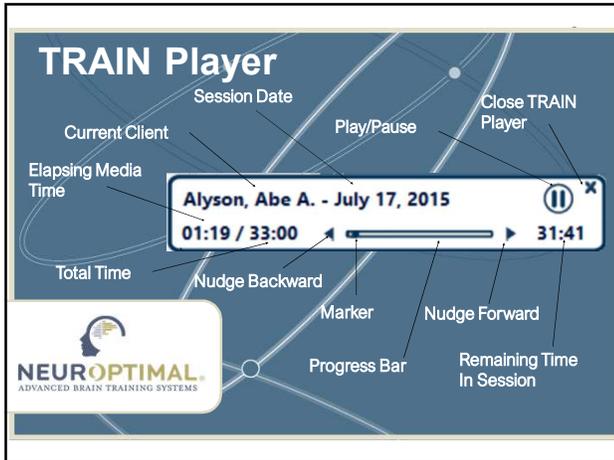


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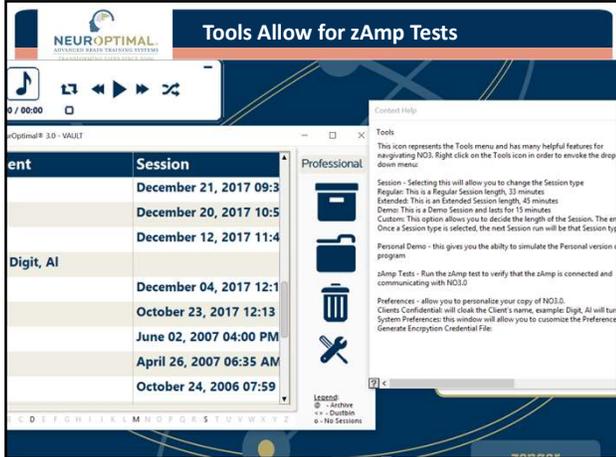


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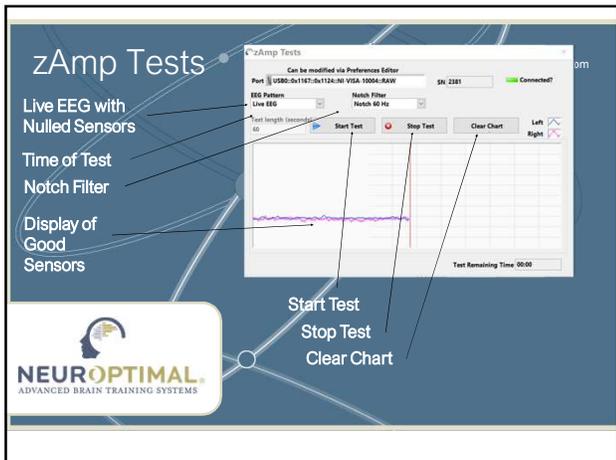


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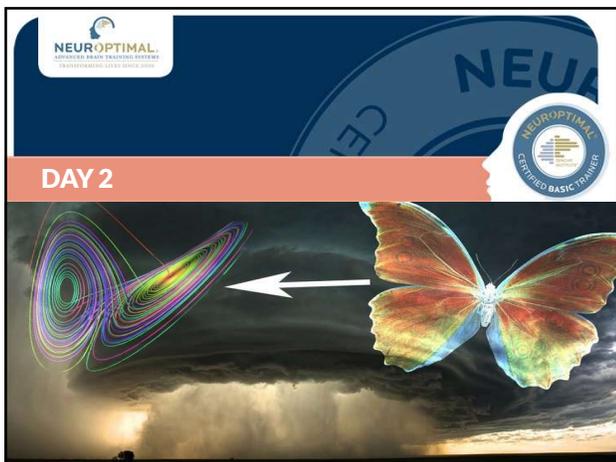
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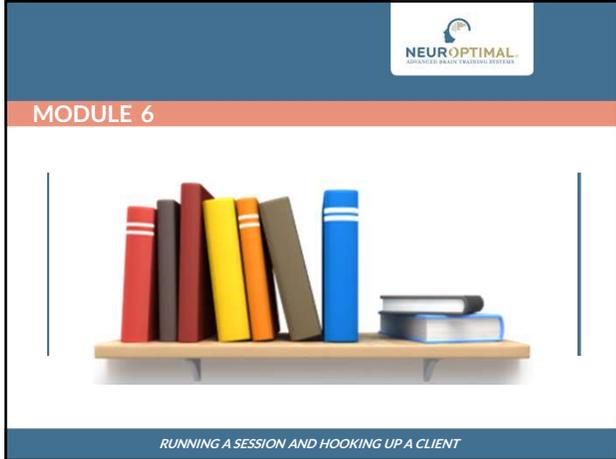


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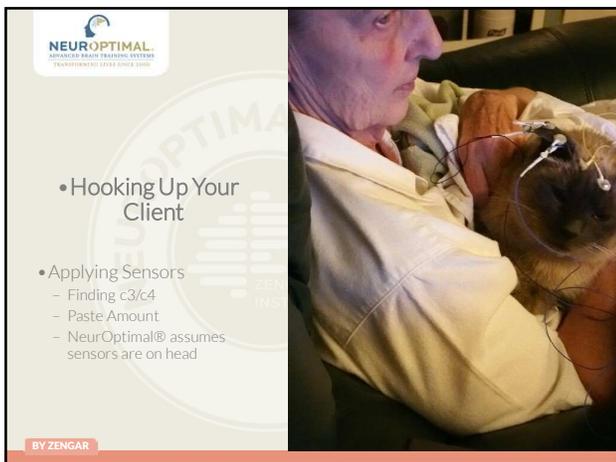
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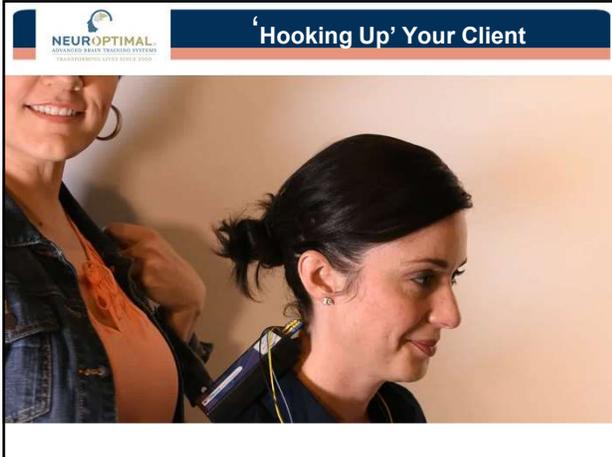
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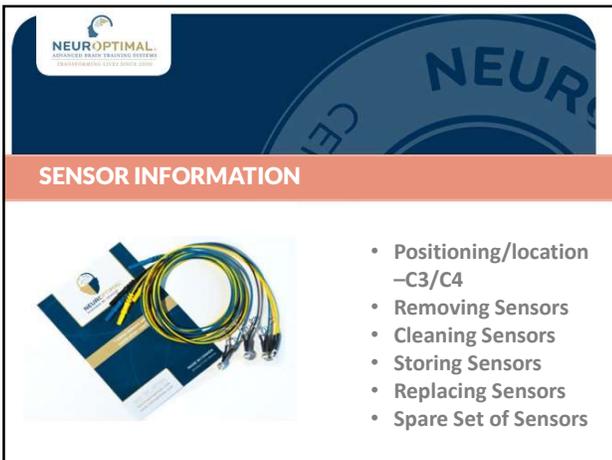
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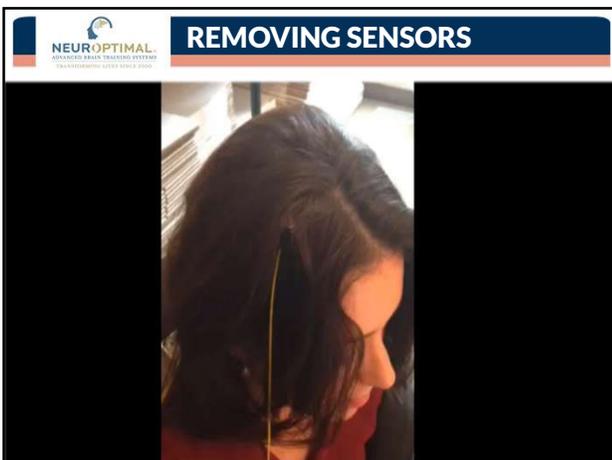
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THE ROLE OF THE TRAINER



- o Being a Detective... looking for minute 'shifts' (changes)
- o Releasing Expectations...
- o Educating the Clients...
- o Answering their questions
- o Monitoring their Shifts
- o Be OK if Client doesn't 'feel' a change

"IT IS NOT YOUR RESPONSIBILITY TO 'FIX' THE CLIENT, IT YOUR RESPONSIBILITY TO PROVIDE THE PROCESS..." DR. SUE BROWN

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AS A TRAINER OUR JOB IS TO HELP MEASURE THE DIFS



- **Duration**- how long does this symptom last
- **Intensity**- how strong of a feeling (i.e. pain, behavior or headache)
- **Frequency**- how often is this occurring now
- **Shifts**- the actual changes that occur

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Recognizing the Shifts



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The One Hundred



TRACKING YOUR SHIFTS: THE ONE HUNDRED

NAME: _____ DATE: _____ PRE-TRAINING/POST DATE: _____

Please check off any items that sound right for you. If you are unsure, use the last week as your guide. It is fine to add comments if you wish.

1. I have a clear sense of purpose.	16. I have a clear sense of direction.	31. I have a clear sense of focus.	46. I have a clear sense of energy.
2. I have a clear sense of direction.	17. I have a clear sense of focus.	32. I have a clear sense of energy.	47. I have a clear sense of purpose.
3. I have a clear sense of focus.	18. I have a clear sense of energy.	33. I have a clear sense of purpose.	48. I have a clear sense of direction.
4. I have a clear sense of energy.	19. I have a clear sense of purpose.	34. I have a clear sense of direction.	49. I have a clear sense of focus.
5. I have a clear sense of purpose.	20. I have a clear sense of direction.	35. I have a clear sense of focus.	50. I have a clear sense of energy.
6. I have a clear sense of direction.	21. I have a clear sense of focus.	36. I have a clear sense of energy.	51. I have a clear sense of purpose.
7. I have a clear sense of focus.	22. I have a clear sense of energy.	37. I have a clear sense of purpose.	52. I have a clear sense of direction.
8. I have a clear sense of energy.	23. I have a clear sense of purpose.	38. I have a clear sense of direction.	53. I have a clear sense of focus.
9. I have a clear sense of purpose.	24. I have a clear sense of direction.	39. I have a clear sense of focus.	54. I have a clear sense of energy.
10. I have a clear sense of direction.	25. I have a clear sense of focus.	40. I have a clear sense of energy.	55. I have a clear sense of purpose.
11. I have a clear sense of focus.	26. I have a clear sense of energy.	41. I have a clear sense of purpose.	56. I have a clear sense of direction.
12. I have a clear sense of energy.	27. I have a clear sense of purpose.	42. I have a clear sense of direction.	57. I have a clear sense of focus.
13. I have a clear sense of purpose.	28. I have a clear sense of direction.	43. I have a clear sense of focus.	58. I have a clear sense of energy.
14. I have a clear sense of direction.	29. I have a clear sense of focus.	44. I have a clear sense of energy.	59. I have a clear sense of purpose.
15. I have a clear sense of focus.	30. I have a clear sense of energy.	45. I have a clear sense of purpose.	60. I have a clear sense of direction.
16. I have a clear sense of energy.	31. I have a clear sense of purpose.	61. I have a clear sense of direction.	62. I have a clear sense of focus.
17. I have a clear sense of purpose.	63. I have a clear sense of energy.	64. I have a clear sense of purpose.	65. I have a clear sense of direction.
18. I have a clear sense of direction.	66. I have a clear sense of focus.	67. I have a clear sense of energy.	68. I have a clear sense of purpose.
19. I have a clear sense of focus.	69. I have a clear sense of energy.	70. I have a clear sense of purpose.	71. I have a clear sense of direction.
20. I have a clear sense of energy.	72. I have a clear sense of purpose.	73. I have a clear sense of direction.	74. I have a clear sense of focus.
21. I have a clear sense of purpose.	75. I have a clear sense of energy.	76. I have a clear sense of purpose.	77. I have a clear sense of direction.
22. I have a clear sense of direction.	78. I have a clear sense of focus.	79. I have a clear sense of energy.	80. I have a clear sense of purpose.
23. I have a clear sense of focus.	81. I have a clear sense of energy.	82. I have a clear sense of purpose.	83. I have a clear sense of direction.
24. I have a clear sense of energy.	84. I have a clear sense of purpose.	85. I have a clear sense of direction.	86. I have a clear sense of focus.
25. I have a clear sense of purpose.	87. I have a clear sense of energy.	88. I have a clear sense of purpose.	89. I have a clear sense of direction.
26. I have a clear sense of direction.	90. I have a clear sense of focus.	91. I have a clear sense of energy.	92. I have a clear sense of purpose.
27. I have a clear sense of focus.	93. I have a clear sense of energy.	94. I have a clear sense of purpose.	95. I have a clear sense of direction.
28. I have a clear sense of energy.	96. I have a clear sense of purpose.	97. I have a clear sense of direction.	98. I have a clear sense of focus.
29. I have a clear sense of purpose.	99. I have a clear sense of energy.	100. I have a clear sense of purpose.	

- Ask Clients to go over their areas to Monitor
- Together pick out the top 3-5 to monitor
- Use this list as a Preliminary guideline
- Repeat at different intervals (possibly every 15 sessions)
- Use as a Post baseline list of domains

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Wishlist and Tracking YOUR Shifts...



MY WISHLIST

FILL THIS OUT BEFORE YOU START YOUR TRAINING WITH NEUROOPTIMAL™

I would be pleased if the following skills were to take place in my life:

1. _____
2. _____
3. _____

Put this in an envelope with your Checklist of Concerns and don't look at it until after you have filled in your next set of forms!

TRACKING YOUR SHIFTS

Fill this out in combination with the Checklist of Concerns before you start training and then every ten sessions.

NAME: _____ DATE: _____

SESSION (CIRCLE): 1 10 20 30 40

CONCERN	DURATION	INTENSITY	FREQUENCY
1. _____	How long it lasts	How strong it is	How often it occurs
2. _____	How long it lasts	How strong it is	How often it occurs
3. _____	How long it lasts	How strong it is	How often it occurs

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PROGRESS TRACKING TOOLS ENCOURAGE THE INDIVIDUAL TO LOOK WITHIN...



- Self-Organizing
- Self-Healing
- Intrinsic
- Dynamical
- Ever-Changing
- Constantly Evolving
- No Absolute Values
- Infinitely Cycling
- Self-Regulating



X CHARTS
 X GRAPHS
 X NUMERICAL VALUES

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WHY ELIMINATE NUMBERS, GRAPHS & CHARTS?



Numbers are external tool originating from outside the client, representing someone else's value of how things should be.

Charts or Graphs assume there is only 1 specific, **absolute value** that is the "right" way to be

Linear analysis tools are always **justifying** an action or **predicting** a value



WE CAN'T DEPEND UPON SOMEONE ELSE'S VIEWS OF PROGRESS FOR WE KNOW "ANALYSIS CREATES PARALYSIS"

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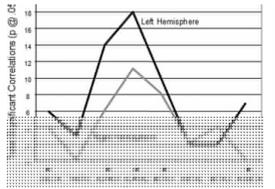
AFTER SESSION VIEWS ARE NOT A LINEAR PROCESS



No matter what you see in the numbers or colors that is in the session training, they do not reveal anything that will cause the Trainer to do anything differently within NeuroOptimal® Sessions.

So we do not tailor the Sessions predicting a change, nor do we look back on a session and try to 'justify' what happened in that session.

Nothing "Doesn't Work": it's always (information) or feedback the CNS responds to in a unique, personalized way



LOOK INWARD AND FEEL THE CHANGE... THAT IS THE EMPOWERMENT THAT WE SEEK

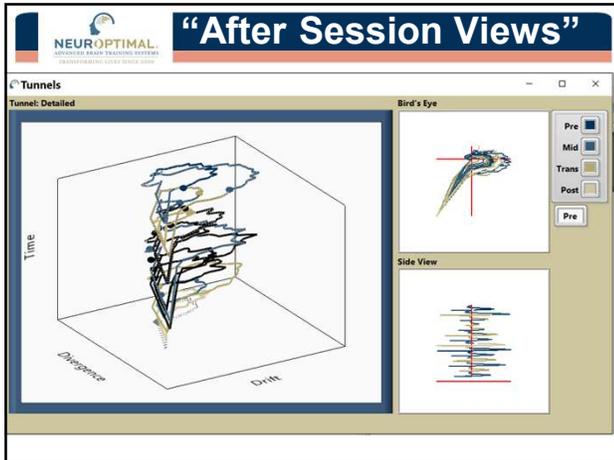
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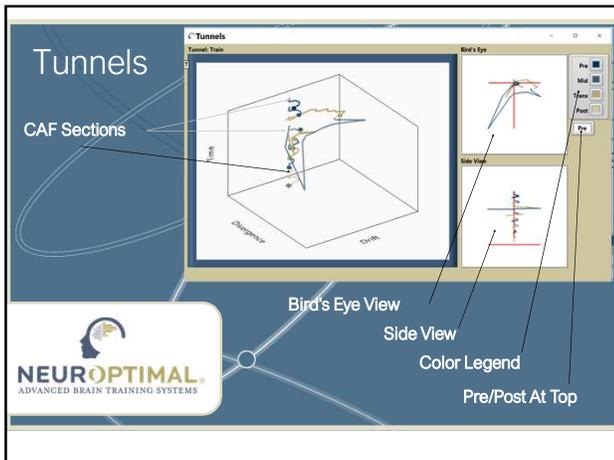
Cross Ambiguity Function

- The **Cross Ambiguity Function (CAF)** replaces the **Legacy CCACs** in the **past 2.0 program**
- **CAF** is the larger group of mathematical algorithms. The **CCAC** is a particular way of determining the **CAF** for the transition of **Eyes Open to Eyes Closed**
- **NO3** calculates **CAFs** from 3 minute segments of **EEG** throughout a **Training Session**
- These segments overlap 1 minute, making the **CAFs** even more robust

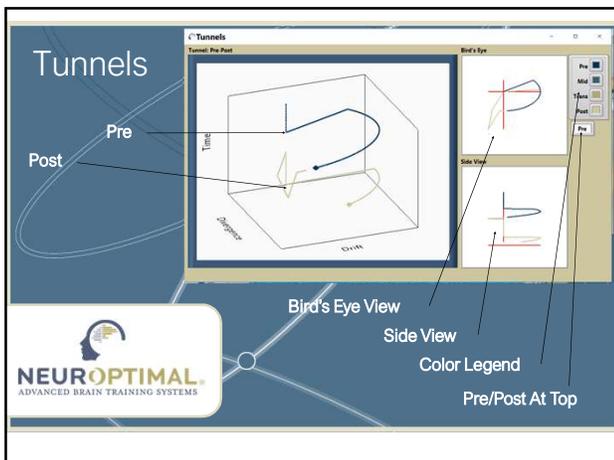
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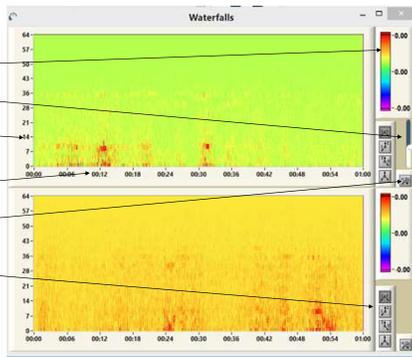
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The Waterfalls: Introduction

- The **Waterfalls Display** is one of two 'After Session Views'
- Multiple **Perspective Views** accessed by a **Tap** with their own **Grab and Drag, Zoom and Reorient View**
- **Line Noise** is removed by default
- You can **Zoom by Intensity** and you can set different **Regions of Interest (ROI)** for greater precision and clarity
- You can migrate **ROIs** between the Left and Right Channel **Waterfalls**

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MODULE 9



THE TECHNICAL SIDE

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THE TECHNICAL SIDE

Maintenance of your system:
Please consistently update your NO3 system as they come in

Requesting Technical Support

Windows Updates--

- 1. Let them happen!
They can take time.
- 2. Is your system slow?
Do Windows Updates.
- 3. Keep doing updates until it tells you
"There are no updates left for this system".

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Updating Your New System

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PART 6 Tips & Troubleshooting

A Tips

- Internet Connection**
Your system must be connected to the internet in order to launch NeuroOptimal®. There is a seven day grace period should you be in a place that does not have an internet connection and you wish to run sessions. We recommend using your cellular phone as a hotspot if you are out of internet range for more than seven days and wish to continue to run sessions.
- Hardware Registration**
It is important to register your hardware. Please visit the Microsoft Website to register your device. This will ensure your Microsoft warranty begins on the date you purchased, not the date the unit was manufactured.
- Antivirus Registration**
Please follow the instructions included in your bundle RE: setting up Antivirus on your system. Your NeuroOptimal® system will be susceptible to viruses if the installation process is not completed.
- Windows Updates**
Keeping your OS updated is imperative to keeping it running optimally. We recommend checking for Windows Updates daily, because having them pending in the background can cause your system to behave oddly. Sometimes Windows updates can take a while to be sure to leave enough time for them to finish if updating prior to a client or, do them at the end of your day. Keep checking for updates until it says that there are "no updates left for this system".
- OS Language**
Your NeuroOptimal® system is configured in a very specific way. Please do not change the language of the OS, as it will have implications on how NeuroOptimal® functions.

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BUSINESS -KEY POINTS:



- Train You Own Brain!!!!
- Leaving your **Client in the driver seat**: Let them to decide when they're "done" or when and if they want to come back
- Training one vs. **multiple members** of a family

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Every Session is the first
and the last"

~Val Brown

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NEW TRAINEE MEETING...



• When discussing with trainees what they may experience remember:

1. Everyone is **different**
2. No way to know what they'll see and experience
3. Typically, "**the more trained a brain is...**" you might see ...(Language)
4. **Subtleties**, examples of situations and shifts
5. Check-in and help them notice 'internal shifts' even ask them to look within at how the Sessions felt, and *would they like to schedule another appointment*
6. If they have been doing the in-office Sessions for a while does it make sense to rent/purchase?

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- Demo of a New Client Communication
 - Listen to their story
 - Explain the **NeuroOptimal®** Process
- Clients that notice differences in their lives = are **Happy Clients**
- Help them do that by:
 - **Progress Tracking Tools** (a diary of change)
 - How to use
 - Ask questions
 - Measurable- What # would you give it?

THE FLOW OF THE SESSIONS-EXTRINSIC CONSTRAINTS

BY ZENGAR

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ELEMENTS OF INITIAL CLIENT SESSION



- Getting Client on Board – Understand how **NeuroOptimal®** works
- Pricing –
 - Per session
 - Per Package of sessions
- Client Understanding of Office Policies
 - * Late or No-Show fees
 - * Any discounts or refunds you offer
- Client Consent to Training

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The Neuroptimal® Session Experience

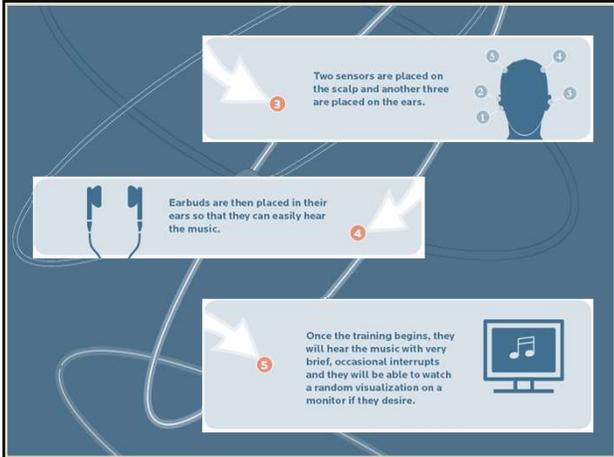
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Before the first **NeuroOptimal®** session, you will ask your client to fill out a brief questionnaire describing how they are feeling and what they wish to achieve in coming to your training sessions
- 

The client will be seated in a comfortable reclining chair facing a computer monitor.

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PRACTICALITIES OF A NEUROFEEDBACK PRACTICE

MODEL OF PRACTICE <ul style="list-style-type: none">• PRIVATE PRACTICE• PIGGY BACK• ON THE ROAD	MULTIPLE SYSTEMS VS. ONE SYSTEM <ul style="list-style-type: none">• SHORTER HOURS• MORE CLIENTS• MORE SLOT AVAILABILITIES DURING PEAK	
--	--	---

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TRAINING LOCATIONS



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PHYSICAL LOCATION SETUP

Client Monitor set up in front of the Client Chair so visual is apparent.

NeuroOptimal® system off to the side or behind Client



BY ZENGAR

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ADDRESSING CLIENT QUESTIONS

- How often to do **Sessions**?
- How many **Sessions** for X,Y or Z?
- Is there an age limit?
- How many **Sessions** is enough?
- Regular **Session** only?
- Getting worse before getting better (side effects?)
- What to expect after first **Session**?
- Sensor Falls Off in a **Session**?



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CLIENT QUESTIONS

- Symptom coming back- something they are familiar with- how is it different?
1. Perception
 2. How dealt with it
 3. To step back and look at it
 4. Look at DIFs



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CLIENT QUESTIONS (CONT'D)

- Populations not to run?
- Do results last?
- Medications
- When to stop Neurofeedback
- Booster **Sessions**
- **Session** series vs. lifetime commitment
- Research



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BRANDING

Branding & Identity

- One consistent message
- In the same language
- Emphasizing the same things
- Leaving everything else out
- Nothing more, nothing less

- Or else you are not Representing Zengar Institute, Inc

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TRADEMARK RULES

Please refer to the trademark rules when using the **NeuroOptimal®** logo, speaking about **NeuroOptimal®** Dynamical Neurofeedback® publicly, building a website etc.



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NEUROPTIMAL
ADVANCED BRAIN TRAINING SYSTEM
TRANSFORMING LIVES SINCE 2006

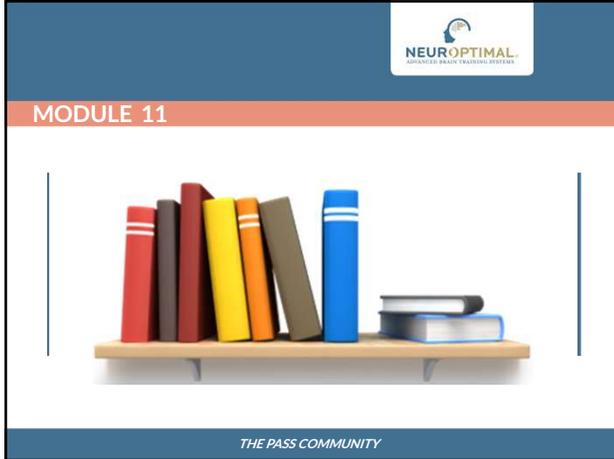
ELEVATOR SPEECH

- We all need a 3-5 sentence dialogue for when someone asks
- “What do you do”?



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