



## Module 4


What is NeuroOptimal® and Basically how does it work?



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## ~DR. VALDEANE BROWN



"Every Session is the first and the last"

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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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**NEUROPTIMAL**  
Advanced Brain Training Systems



**NeurOptimal® & Process Variability**

**NEUROPTIMAL**  
CERTIFIED BASIC TRAINER

- Because our brain is **infinitely cycling & self-regulating** NeurOptimal® 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 **NeurOptimal® system** also cycles and responds to each individual brain each time they are 'hooked-up'

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**NEUROPTIMAL**  
Advanced Brain Training Systems

**THE ORCHESTRA**

**NEUROPTIMAL**  
CERTIFIED BASIC TRAINER

The **CNS** is like an orchestra and when all of the instruments are playing together it makes an incredible harmonious sound. – However, when one instrument is:

- **Playing notes too long or short** compared to the rest of the orchestra, (Duration)
- Or is **too loud**, (Intensity) (amplitude, volume)
- Or is **off key** (a note is too sharp or flat) (Frequency)
- Or in a different **Key Signature**- Key of B versus Key of D, a 'Shift' this is that feeling of being 'off-beat' or dissonant as if a 'out of sync a little', which *looks & sounds like a 'Flutter'*



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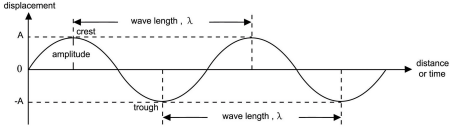
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**NEUROPTIMAL**  
Advanced Brain Training Systems

**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



**parts of a wave**

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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

"Flutter the cusp of a shift"  
Dr. Val Brown



BY Zengar®

RWT2009

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### Dr. Val Brown

Hummingbird Shifts



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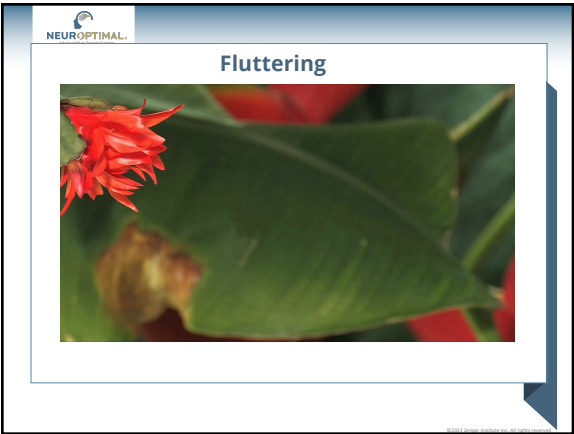
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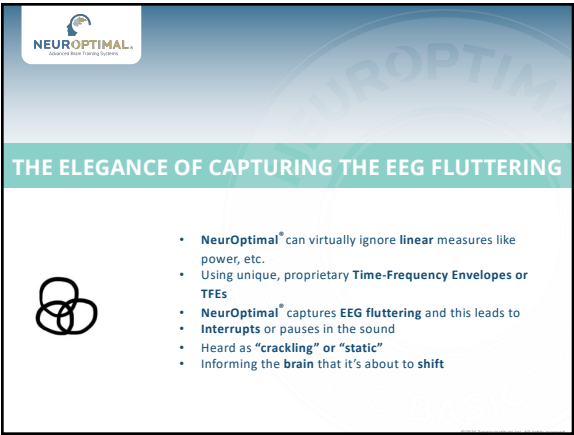
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## NONLINEAR DYNAMICAL SYSTEMS



- 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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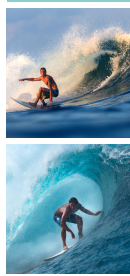
- That's looking at frequency and amplitude-based methods
- Assessment is irrelevant
- Diagnostically agnostic
- **Comprehensive and adaptive training:** not **"One Size Fits All"** and NOT a **"Plug and Play"** that assumes it is all the same training

### Turbulence is our environmental challenges...

We learn to maneuver within the turbulence with our Training for flexibility and resilience



#### We are not Diminishing Turbulence



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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.
- Therefore, we suggest **tracking feelings and changes** using our **Journal Tracking**, 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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Control Procedures for  
Dynamic Systems:

- Extrinsic Constraints
- Chaotic Perturbation
- Entrain & Migrate
- Synchronization through Chaos

Chaotic Activity

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EXTRINSIC CONSTRAINTS

- Light & sound therapy
- Loud clocks
- Birds chirping
- EMDR or acupuncture

- Medications
- Vitamins
- Supplements

- Linear NF
- Binaural beats
- Entrainment CDs
- PEMF
- Sound Systems
- TMS
- LENS

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CHAOTIC PERTURBATION

What Happens if I Do This?

Randomly changing controls until you discover something that you believe might work

Is like Herding Cats...

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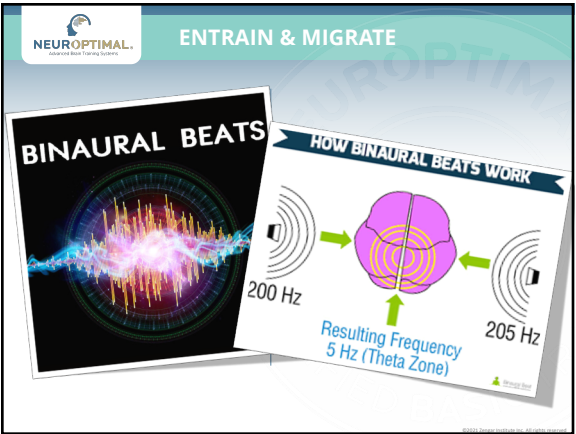
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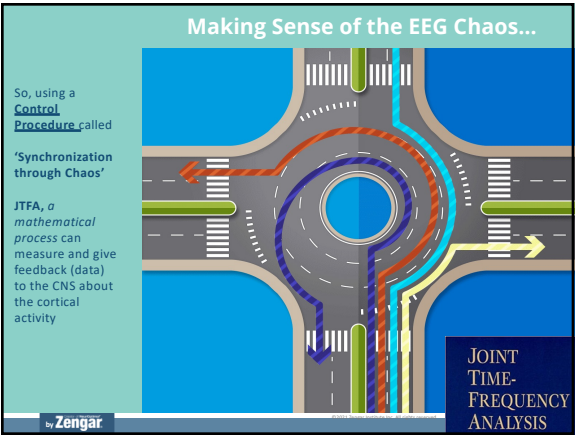
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### Diagnostically Agnostic

- 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 NEUROOPTIMAL® DO?

ANALYZES SHIFTS OR FLUTTER IN THE ELECTRICAL ACTIVITY THAT IS BEING RECORDED

SAMPLES DATA 256 TIMES PER SECOND.

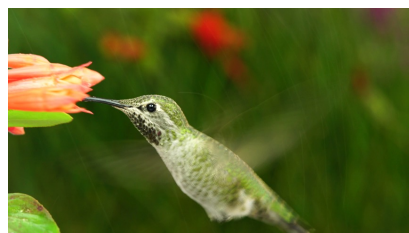
TRIGGERS AN INTERRUPTION OF SOUND

THE BRAIN SEEKS SELF-REGULATION BY USING A RE-ORIENTATION PROCESS

WE CALL THIS PERSONAL TRANSFORMATION

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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

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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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### Discussion Questions

Please Take Time to Review

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