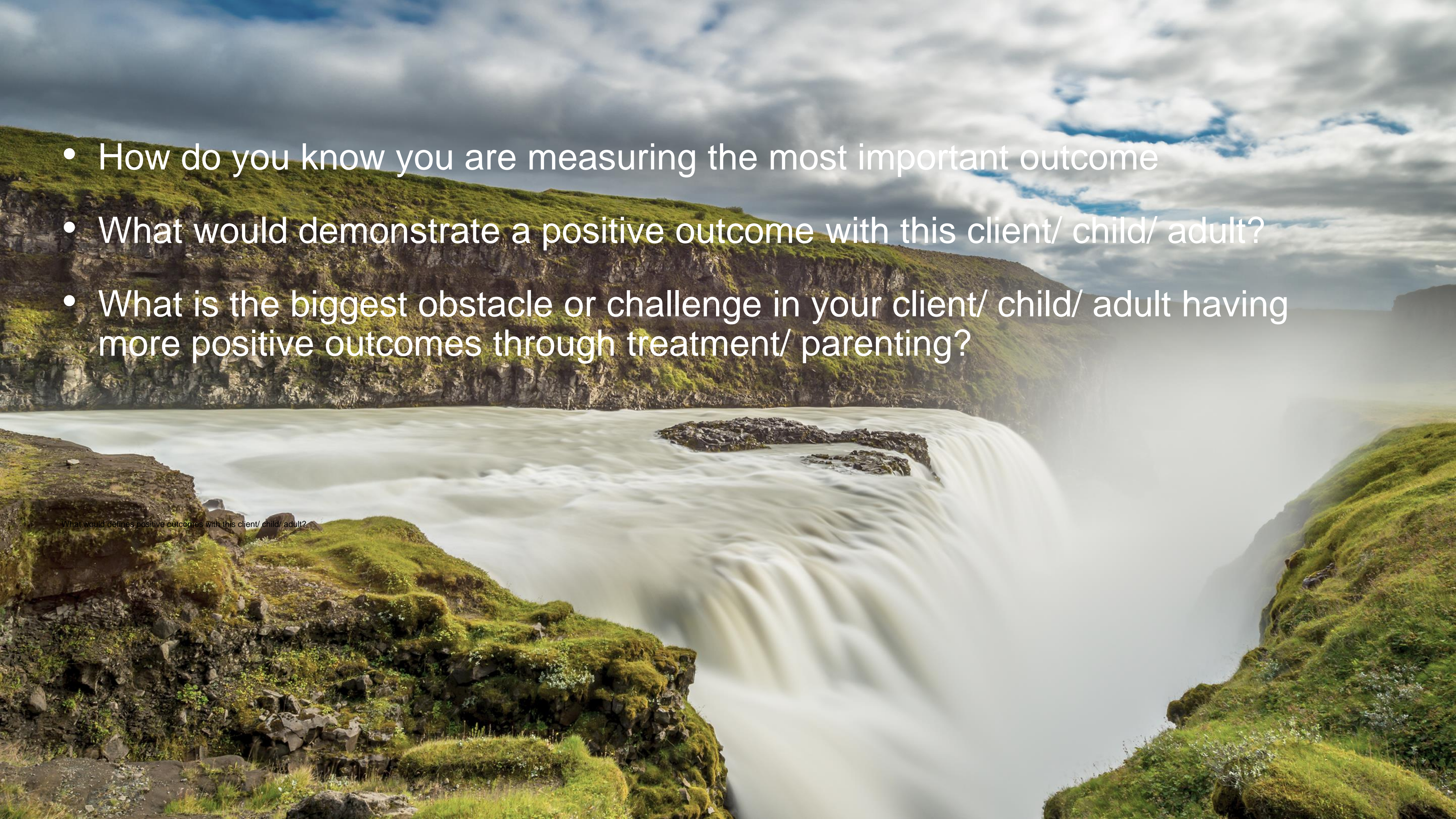


# Improving Outcomes Through Neuroscience



**John R Murray Jr. MSW Families First of Virginia**



- 
- How do you know you are measuring the most important outcome
  - What would demonstrate a positive outcome with this client/ child/ adult?
  - What is the biggest obstacle or challenge in your client/ child/ adult having more positive outcomes through treatment/ parenting?

What would define positive outcomes with this client/ child/ adult?



# Neurological Goals

Stop chasing behaviors and  
look at client's/ child's Adult's Brain

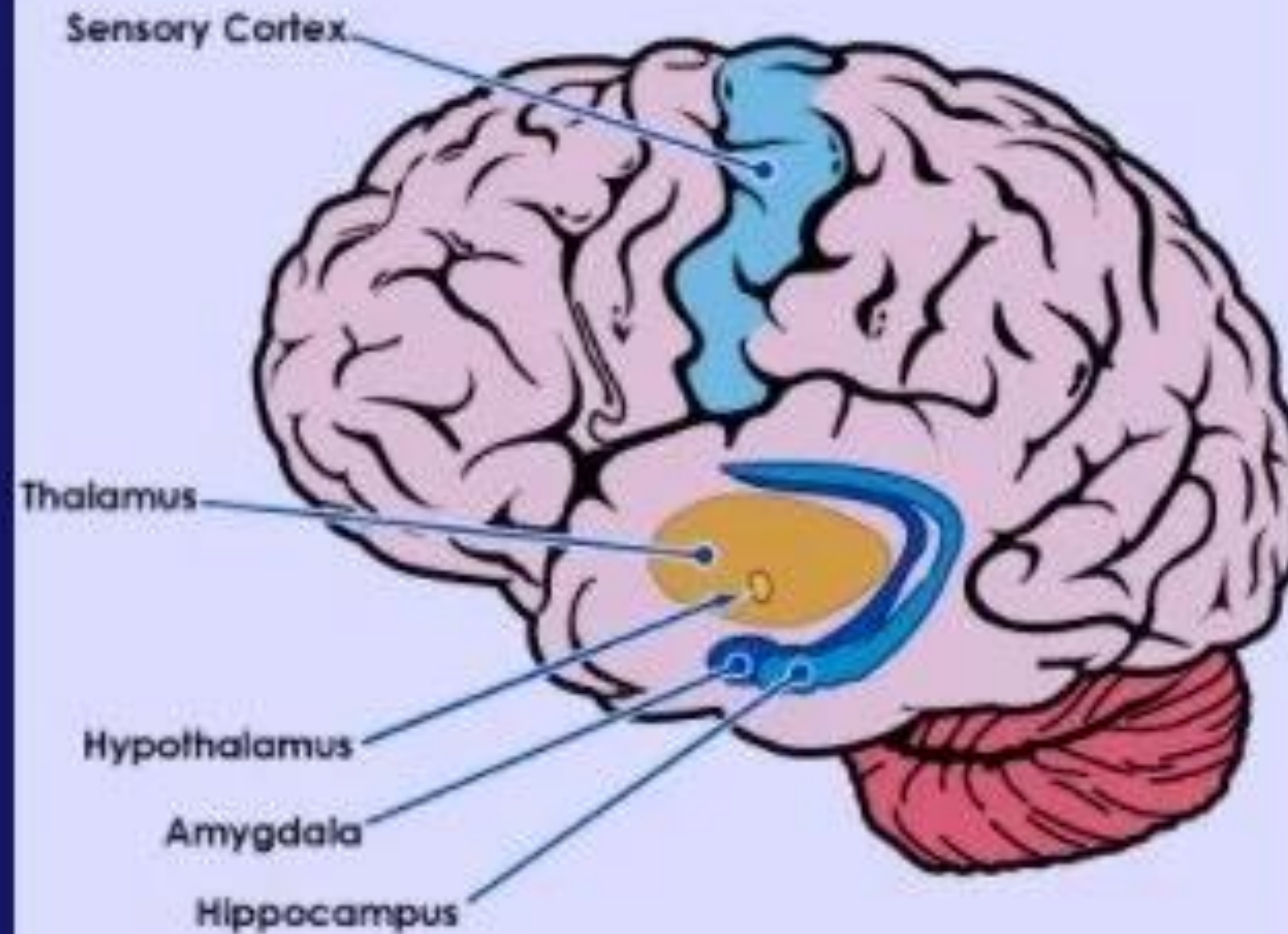
- What are the Neurological Goals for your client/ child/ adult?
- What is the primary neurological target ?
- What clinical techniques or strategies improve Neuroplasticity?



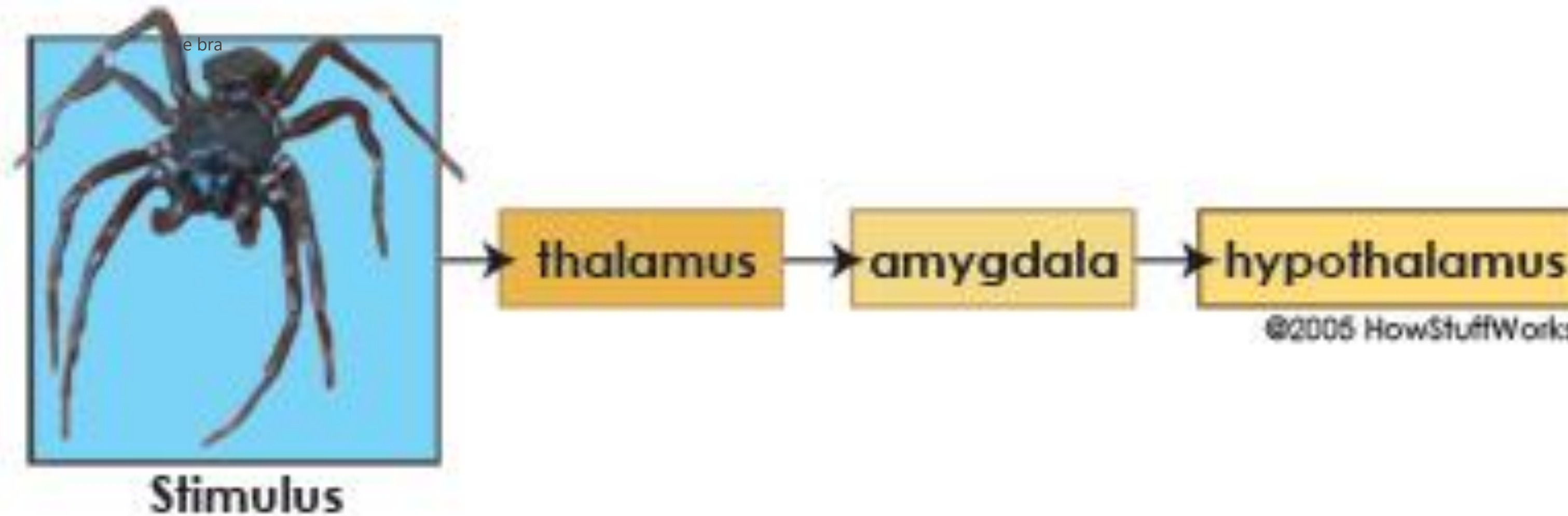


# Lymbic Brain and Trauma

Parts of the Brain Involved in Fear Response



# The Low Road



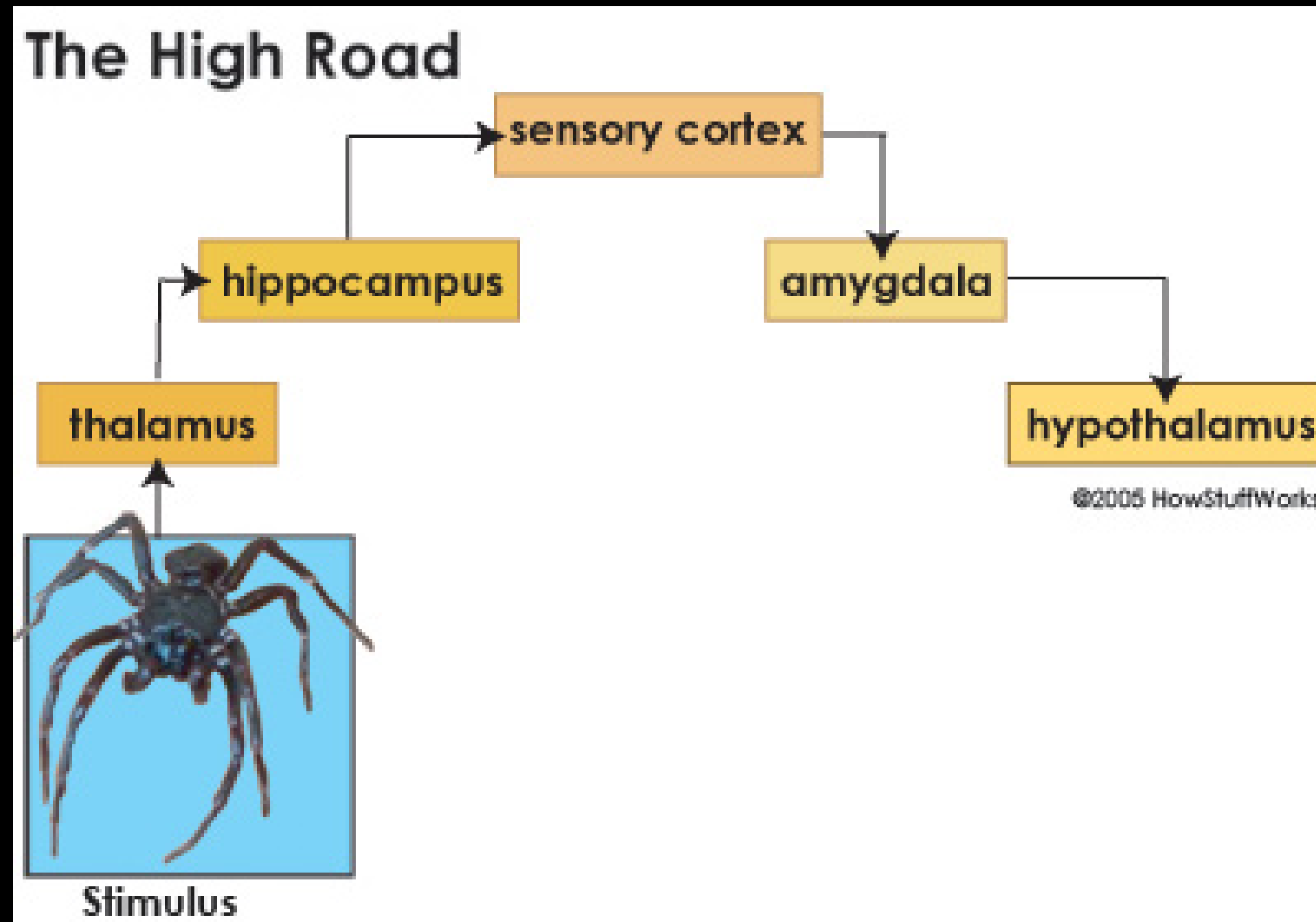
- Stress
- Perceived danger
- Threats
- Triggers
- Loud environment
- Confronting style
- Reminders of

**punishments/  
consequences**

- Lack of restful sleep
- Hunger
- Feelings of not being good enough

# High Road and the Executive Functions

Brain Regulation allows for access to learning and rewiring of the brain





# **Regulation Requires Specific Neurological Target**

**Opening up connections to the Hippocampus and executive Functions of the Brain is the only Path moving from Dysregulation to Regulation. Once Regulation is achieved then new pathways are able to be wired in the brain. Shocking the brain with creating positive memory in times of dysregulation is a skill that is required to increase more positive outcomes with your client/ child/ adult.**



# High Road is stimulated by?

1. Framing the client's struggle
2. Pointing out Positive Intension
3. Time traveling techniques that allow to point out past positive memories
4. Future oriented Techniques that are positive and guaranteed
5. Co-Regulation techniques



# HUMAN BRAIN WAVES

**GAMMA**  
25-100Hz



Insight  
Peak focus  
Expanded  
consciousness

**BETA**  
12.5-30Hz



Alertness  
Concentration  
Cognition

**ALPHA**  
7.5-12.5Hz



Relaxation  
Visualization  
Creativity

**THETA**  
4-7Hz



Meditation  
Intuition  
Memory

**DELTA**  
0.5-4Hz



Detached  
awareness  
Healing  
Sleep

0.0 0.2 0.4 0.6 0.8 1.0 (Seconds)



# How Trauma Affects Brain Waves

- Stuck in Theta
- Stuck in High Beta
- Swings from Theta to High Beta
- Swings from High Beta to Theta
- Trouble getting to Delta when sleeping
- Trouble Accessing Alpha



# Alpha Tainnig is Key to Improving Brain Wave Transitioning

- Meditation
- Being in Nature
- Mindfulness
- Deep Breathing
- Listening to Alpha frequency
- Yoga



# Knowing Your Brain is the Key

You are not able to Co-Regulate when you can not self-regulate.

Increasing positive outcomes is only possible when you remain in a Regulated state!

