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# ***Equanimity***

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[www.WiseBrain.org](http://www.WiseBrain.org)

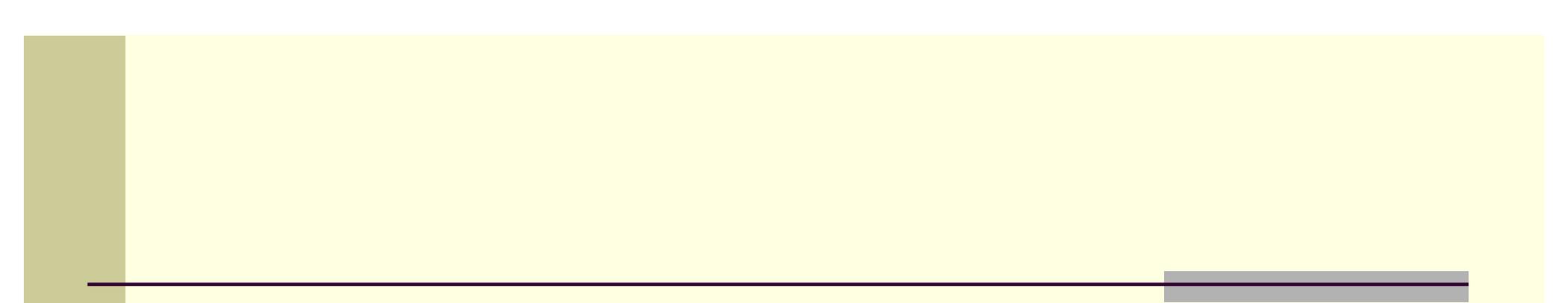
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# Topics

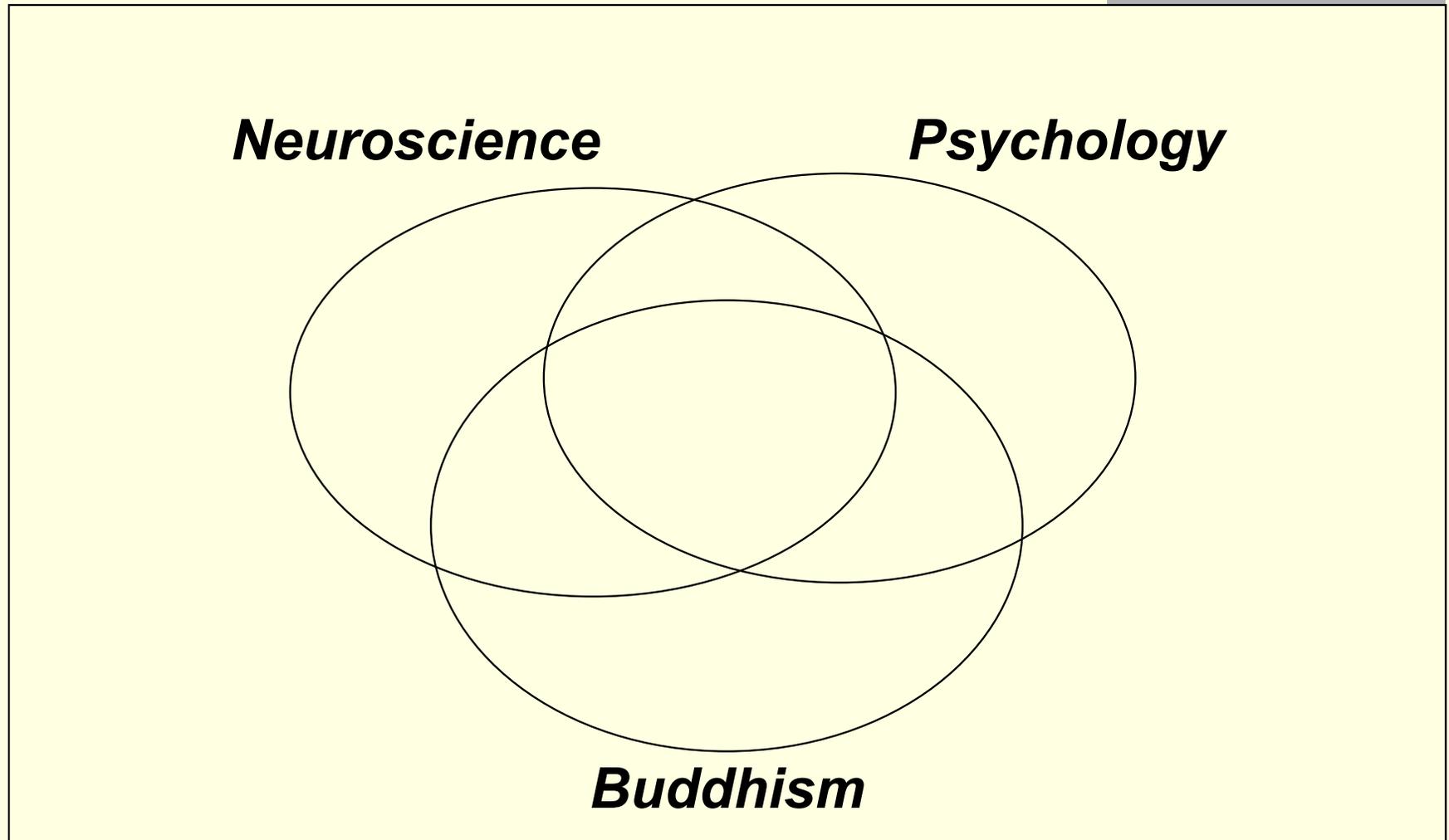
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- **The brain and neuroplasticity**
- **Steadiness of mind**
- **The evolving brain**
- **Cooling the fires**
- **Healing old pain**
- **Spacious awareness**



# Perspectives

# Common - and Fertile - Ground



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*Whose mind is like rock, steady, unmoved,  
dispassionate for things that spark passion,  
unangered by things that spark anger:*

*When one's mind is developed like this,  
from where can there come suffering & stress?*

The Buddha, Udāna 4.34

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*We ask, "What is a thought?"*

*We don't know,*

*yet we are thinking continually.*

Venerable Tenzin Palmo

# Domains of Intervention

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- We can intervene in three domains:
  - World (including relationships)
  - Body
  - Mind
- All three are important. And they work together.
- We have limited influence over world and body.
- In the mind:
  - Much more influence
  - Changes are with us wherever we go

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**What is equanimity?**

**And why does it matter?**

# Eight Worldly Winds

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- Pleasure and pain
- Praise and blame
- Gain and loss
- Fame and ill repute

# Balanced, Steady, Present

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- Balance - not reacting to the fleeting experiences
- Steadiness - sustained through all circumstances
- Presence - engaged with the world but not troubled by it; guided by values and virtues, not reactions

The ancient circuitry of the brain continually triggers reactions. Equanimity is the circuit breaker that prevents the craving (broadly defined) that leads to suffering.

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*Equanimity is a perfect, unshakeable balance of mind.*

Nyanaponika Thera

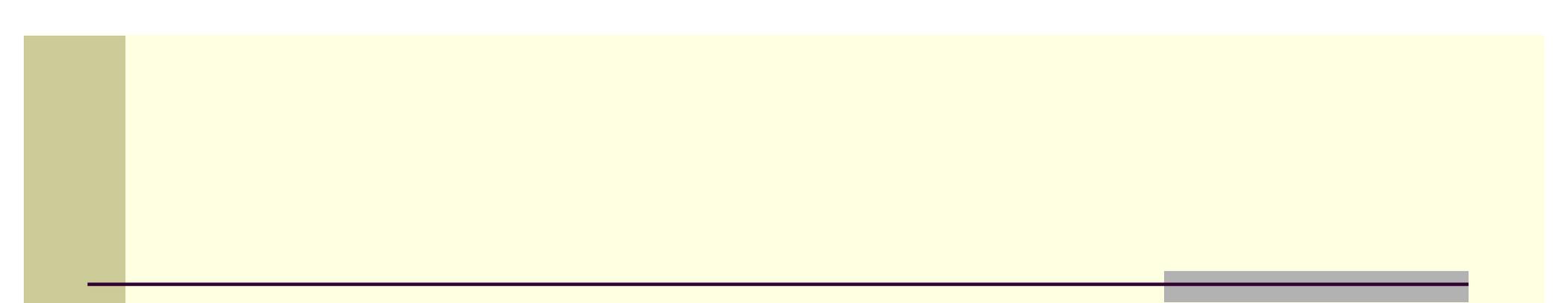
*With equanimity, you can deal with situations with calm and reason while keeping your inner happiness.*

The Dalai Lama

# Self-Goodwill

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- All the great teachers have told us to be compassionate and kind toward all beings. And that whatever we do to the world affects us, and whatever we do to ourselves affects the world.
- You are one of the “all beings!” And kindness to yourself benefits the world, while hurting yourself harms the world.
- It’s a general moral principle that the more power you have over someone, the greater your duty is to use that power wisely. Well, who is the one person in the world you have the greatest power over? It’s your future self. You hold that life in your hands, and what it will be depends on how you care for it.
- Consider yourself as an innocent child, as deserving of care and happiness as any other.



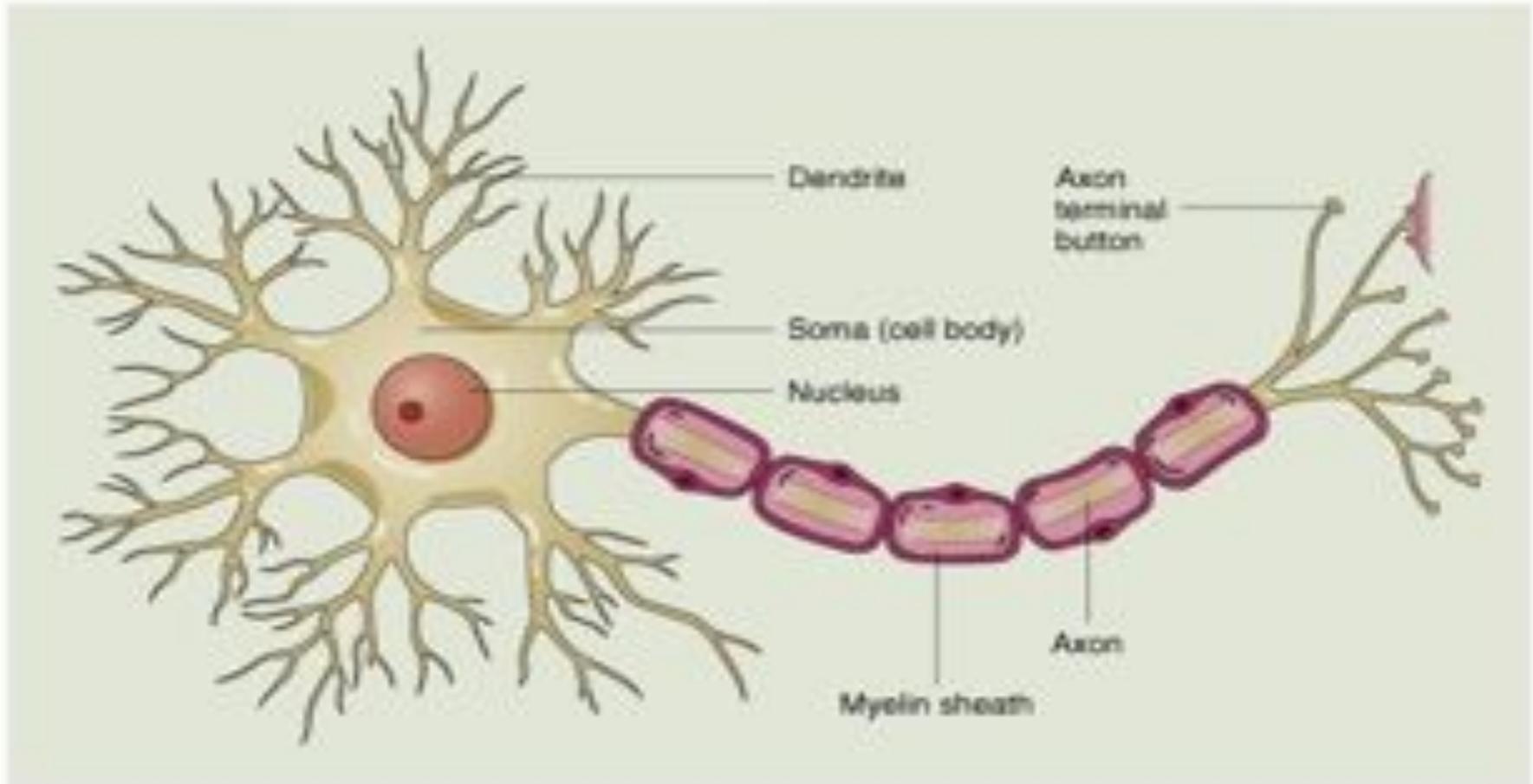
# **The Brain and Neuroplasticity**

# Brain Basics

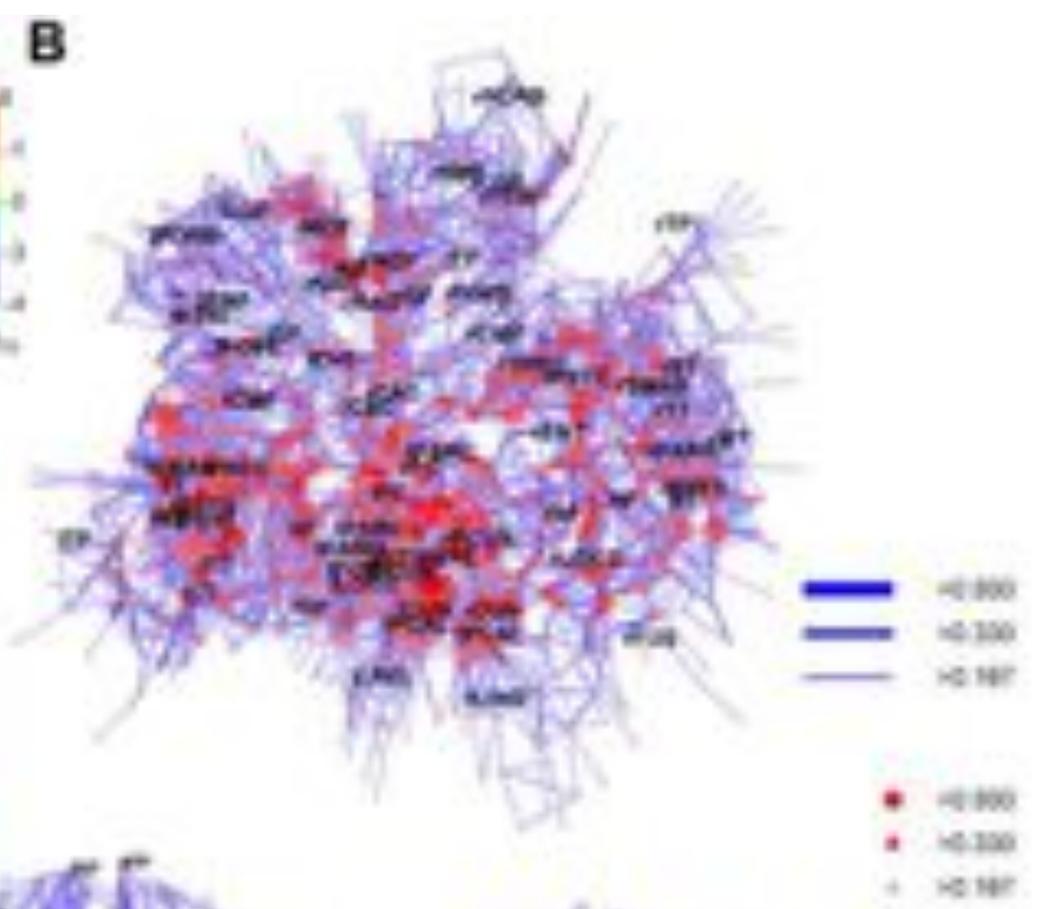
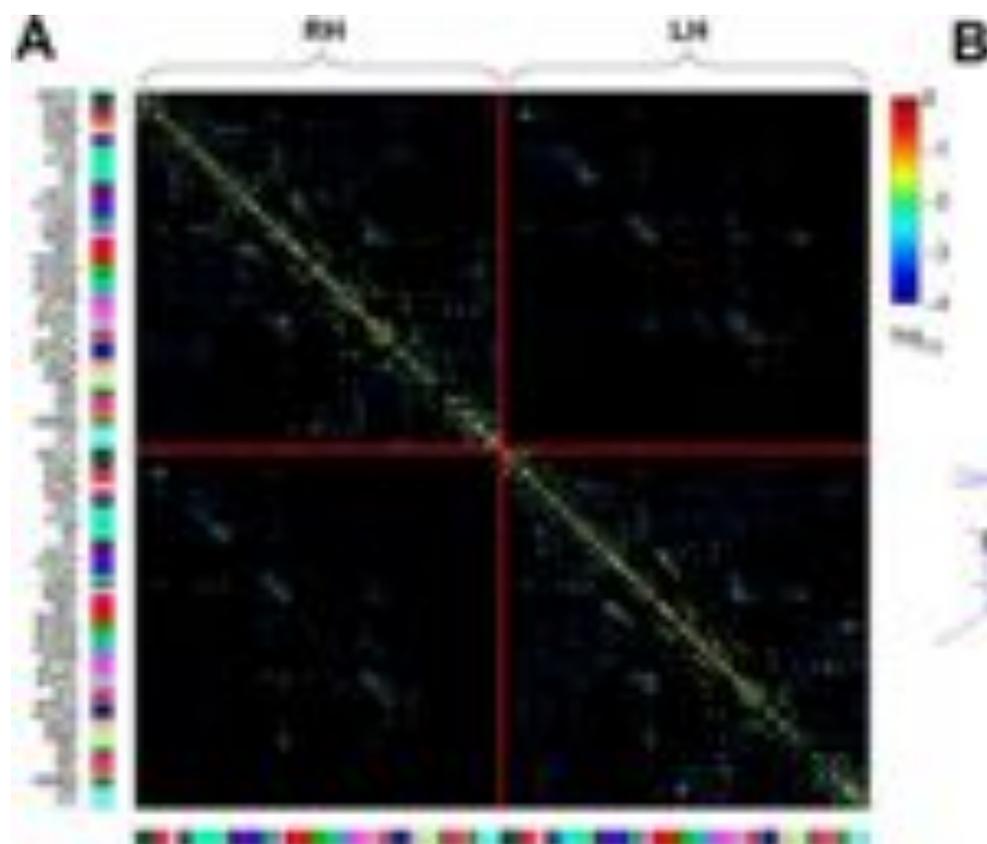
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- **Size:**
  - 3 pounds of tofu-like tissue
  - 1.1 trillion brain cells
  - 100 billion “gray matter” neurons
- **Activity:**
  - Always on 24/7/365 - Instant access to information on demand
  - 20-25% of blood flow, oxygen, and glucose
- **Speed:**
  - Neurons firing around 5 to 50 times a second (or faster)
  - Signals crossing your brain in a tenth of a second
- **Connectivity:**
  - Typical neuron makes ~ 5000 connections with other neurons:  
~ 500 trillion synapses
- **Complexity:**
  - Potentially 10 to the millionth power brain states

# A Neuron



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# The Mind/Brain System

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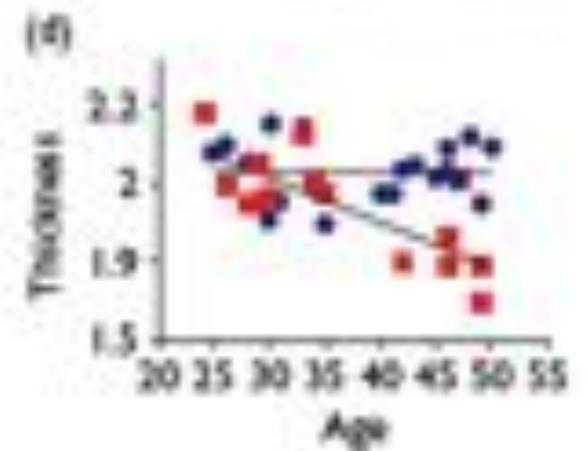
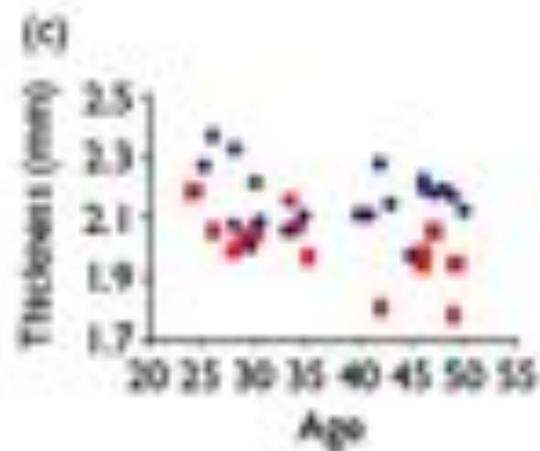
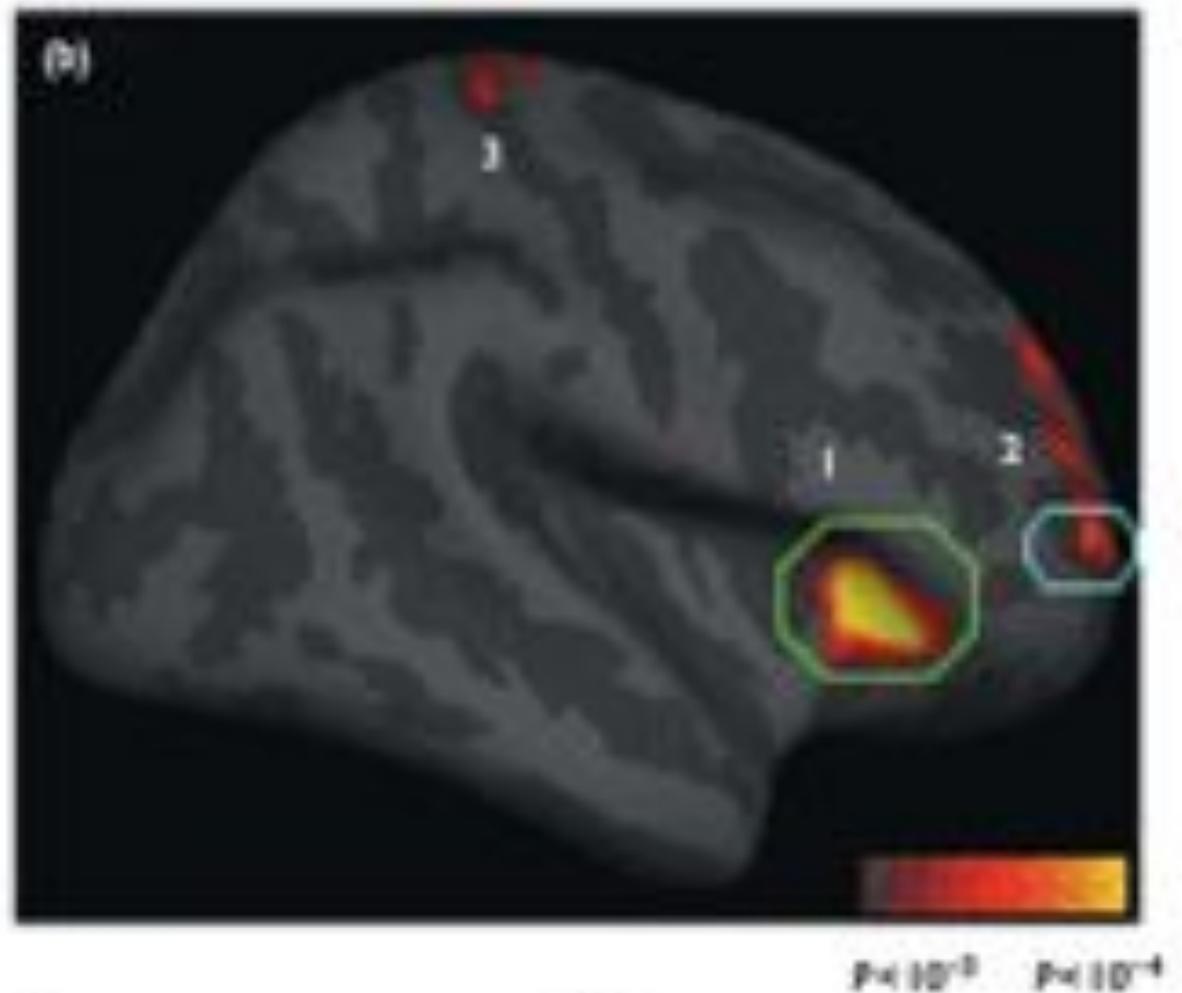
- “Mind” = flow of information within the nervous system
  - Information is represented by the nervous system.
  - Most mind is unconscious; awareness is part of mind.
  - The headquarters of the nervous system is the brain.
- In essence then, apart from hypothetical transcendental factors, your mind *is* what your brain *does*.
- Brain = necessary, *proximally* sufficient condition for mind.
  - The brain depends on the nervous system, which intertwines with and depends on other bodily systems.
  - These systems in turn intertwine with and depend upon nature and culture, both presently and over time.
  - And as we’ll see, the brain also depends on the mind.

# Mind Changes Brain in Lasting Ways

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- What flows through the mind sculpts your brain. Immaterial experience leaves material traces behind.
- Increased blood/nutrient flow to active regions
- Altered epigenetics (gene expression)
- “Neurons that fire together wire together.”
  - Increasing excitability of active neurons
  - Strengthening existing synapses
  - Building new synapses; thickening cortex
  - Neuronal “pruning” - “use it or lose it”

Lazar, et al. 2005.  
Meditation  
experience is  
associated  
with increased  
cortical thickness.  
*Neuroreport*, 16,  
1893-1897.





*The principal activities of brains  
are making changes in themselves.*

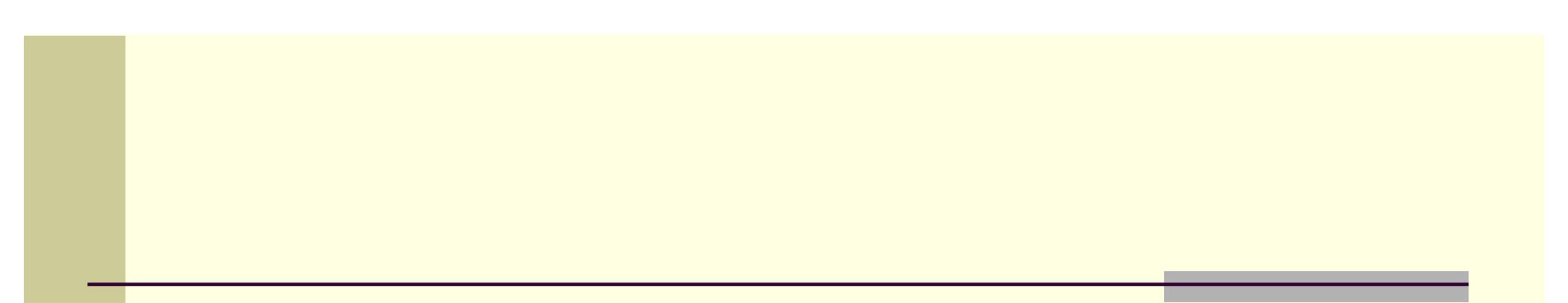
Marvin L. Minsky

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*Know the mind.*

*Shape the mind.*

*Free the mind.*



# **Steadiness of Mind**

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*The education of attention  
would be an education par excellence.*

William James

# How to Take in the Good

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1. Look for positive **facts**, and let them become positive experiences.
2. Savor the positive experience:
  - Sustain it for 10-20-30 seconds.
  - Feel it in your body and emotions.
  - Intensify it.
3. Sense and intend that the positive experience is soaking into your brain and body - registering deeply in emotional memory.

# Basics of Meditation

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- Relax, in a posture that is comfortable and alert.
- Have simple good will toward yourself.
- Be aware of your body.
- Focus on something to steady your attention.
- Accept whatever passes through awareness.
- Gently settle into peaceful well-being.

# Foundations of Meditation

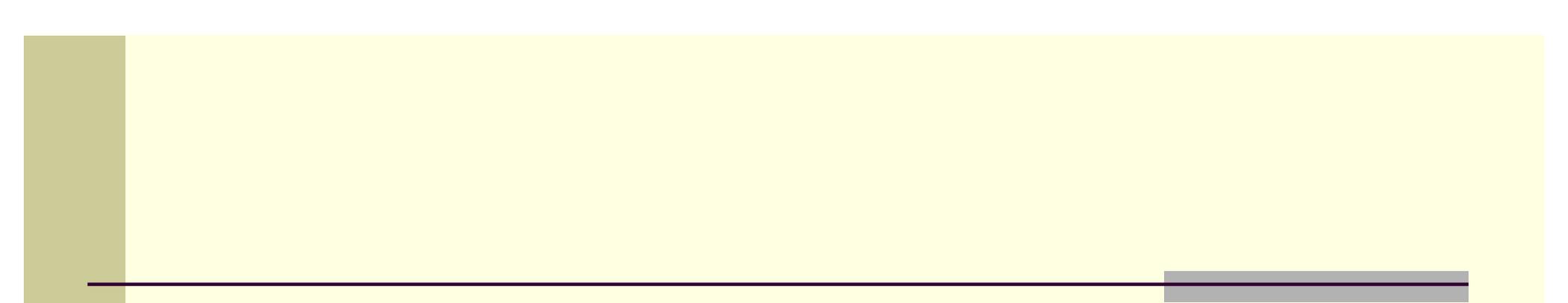
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- Setting an intention - “top-down” frontal lobes, “bottom-up” limbic system
- Relaxing the body - parasympathetic nervous system
- Feeling safer - inhibits amygdala/ hippocampus vigilance circuits
- Evoking positive emotion - dopamine, norepinephrine
- Absorbing the benefits - primes memory circuits throughout the brain

# Promoting Steadiness of Mind

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- Daily meditation
- Concentration practices
- Attention to the neutral
- Disenchantment with the show in the mind



# **The Evolving Brain**

# Evolution

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- ~ 4+ billion years of earth
- 3.5 billion years of life
- 650 million years of multi-celled organisms
- 600 million years of nervous system
- ~ 200 million years of mammals
- ~ 60 million years of primates
- ~ 6 million years ago: last common ancestor with chimpanzees, our closest relative among the “great apes” (gorillas, orangutans, chimpanzees, bonobos, humans)
- 2.5 million years of tool-making (starting with brains 1/3 our size)
- ~ 150,000 years of *homo sapiens*
- ~ 50,000 years of modern humans
- ~ 5000 years of blue, green, hazel eyes

# Three Stages of Brain Evolution

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## ■ Reptilian:

- Brainstem, cerebellum, hypothalamus
- Reactive and reflexive
- **Avoid** hazards

## ■ Mammalian:

- Limbic system, cingulate, early cortex
- Memory, emotion, social behavior
- **Approach** rewards

## ■ Human:

- Massive cerebral cortex
- Abstract thought, language, cooperative planning, empathy
- **Attach** to “us”

# Three Goal-Directed Systems Evolved in the Brain

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- **Avoid** “sticks,” threats, penalties, pain
- **Approach** “carrots,” opportunities, rewards, pleasure
- **Attach** to “us,” proximity, bonds, feeling close
- Although the three branches of the vagus nerve loosely map to the three systems, the essence of each is its aim, not its neuropsychology.
- Each system can draw on the other two for its ends.

# Love and the Brain

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- Social capabilities have been a primary driver of brain evolution.
- Reptiles and fish avoid and approach. Mammals and birds *attach* as well - especially primates and humans.
- Mammals and birds have bigger brains than reptiles and fish.
- The more social the primate species, the bigger the cortex.
- Since the first hominids began making tools ~ 2.5 million years ago, the brain has roughly tripled in size, much of its build-out devoted to social functions (e.g., cooperative planning, empathy, language). The growing brain needed a longer childhood, which required greater pair bonding and band cohesion.

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***What is the nature of the brain when a person is:***

- **Experiencing inner peace?**
- **Self-actualizing?**
- **Enlightened (or close to it)?**

# Home Base of the Human Brain

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When not threatened, ill, in pain, hungry, upset, or chemically disturbed, most people settle into being:

- **Calm** (the Avoid system)
- **Contented** (the Approach system)
- **Caring** (the Attach system)
- **Creative** - synergy of all three systems

This is the brain in its *responsive* mode.

# Responsive Mode

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# Responsive Mode

	<u>View</u>	<u>Action</u>	<u>Experience</u>
<b>Avoid</b>	Resources, challenges-in- context	Govern/restrain, truth-to-power, forgive	Strength, safety, peace
<b>Approach</b>	Sufficiency, abundance, disenchantment	Aspire, give, let go	Glad, grateful, fulfilled, satisfied
<b>Attach</b>	Connection, belonging, social supplies	Open to others; join; be empathic, compassionate, kind, caring; love	Membership, closeness, friend- ship, bonding loved and loving

# But To Cope with Urgent Needs, We Leave Home . . .

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**With activations of the three systems:**

- **Avoid:** When we are threatened or harmed
- **Approach:** When we can't attain important goals
- **Attach:** When we feel isolated, disconnected, unseen, unappreciated, unloved

This is the brain in its *reactive* mode of functioning  
- a kind of inner homelessness.

# The Reactive Triangle

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The urgency of survival needs have made the *reactive* mode very powerful in the rapidity, intensity, and inflexibility of its activations.

# Reactive Mode

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	<u>View</u>	<u>Action</u>	<u>Experience</u>
<b>Avoid</b>	Harms present or lurking	Fight, flight, freeze	Fear, anger, weakness
<b>Approach</b>	Scarcity, loss, unreliability, not expected rewards	Grasp, acquire	Greed, longing, frustration, disappointment
<b>Attach</b>	Separated, being “beta,” devalued	Cling, seek approval, reproach	Loneliness, heart- break, envy, jealousy, shame

# Reactive Dysfunctions in Each System

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- **Approach** - Addiction; over-drinking, -eating, -gambling; compulsion; hoarding; driving for goals at great cost; spiritual materialism
- **Avoid** - Anxiety disorders; PTSD; panic, terror; rage; violence
- **Affiliate** - Borderline, narcissistic, antisocial PD; symbiosis; *folie a deux*; “looking for love in all the wrong places”

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**A key component of the Reactive mode is a focus on scanning for, reacting to, storing, and retrieving negative stimuli: *the negativity bias.***

# Negativity Bias: Causes in Evolution

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- “Sticks” - Predators, natural hazards, social aggression, pain (physical and psychological)
- “Carrots” - Food, sex, shelter, social support, pleasure (physical and psychological)
- During evolution, avoiding “sticks” usually had more effects on survival than approaching “carrots.”
  - Urgency - Usually, sticks must be dealt with immediately, while carrots allow a longer approach.
  - Impact - Sticks usually determine mortality, carrots not; if you fail to get a carrot today, you’ll likely have a chance at a carrot tomorrow; but if you fail to avoid a stick today - whap!<sup>44</sup>  
- no more carrots forever.

# Negative Experiences Can Have Benefits

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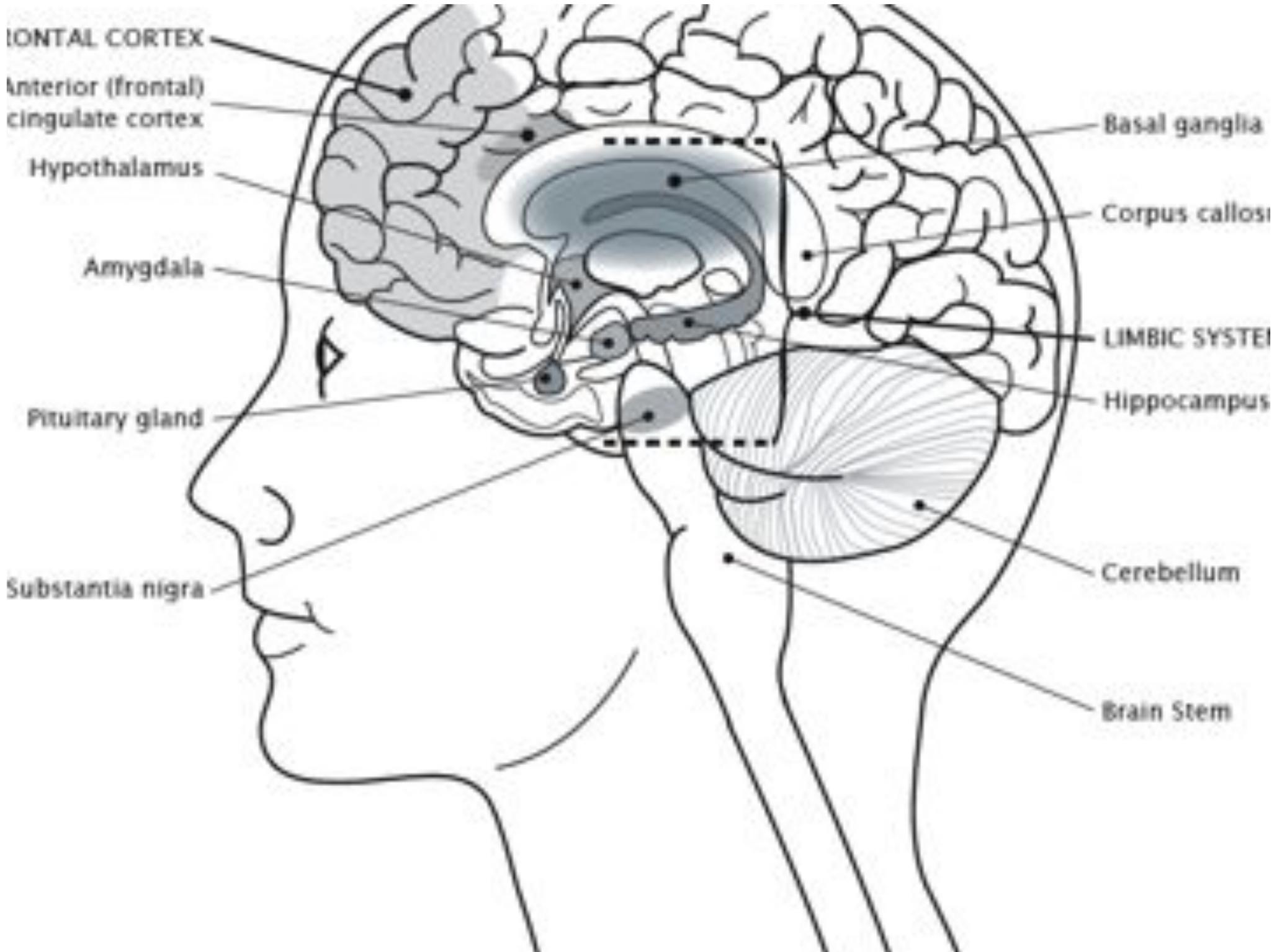
- There's a place for negative emotions:
  - Anxiety alerts us to inner and outer threats
  - Sorrow opens the heart
  - Remorse helps us steer a virtuous course
  - Anger highlights mistreatment; energizes to handle it
- Negative experiences can:
  - Increase tolerance for stress, emotional pain
  - Build grit, resilience, confidence
  - Increase compassion and tolerance for others

*But is there really any shortage of negative experiences?*

# One Neural Consequence of Negative Experiences

---

- Amygdala (“alarm bell”) initiates stress response
- Hippocampus:
  - Forms and retrieves contextual memories
  - Inhibits the amygdala
  - Inhibits cortisol production
- Cortisol:
  - Stimulates and sensitizes the amygdala
  - Inhibits and can shrink the hippocampus
- Consequently, chronic negative experiences:
  - Sensitize the amygdala alarm bell
  - Weaken the hippocampus: this reduces memory capacities and the inhibition of amygdala and cortisol production.
  - Thus creating vicious cycles in the NS, behavior, and mind



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# A Major Result of the Negativity Bias: Threat Reactivity

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- Two mistakes:
  - Thinking there is a tiger in the bushes when there isn't one.
  - Thinking there is no tiger in the bushes when there is one.
- We evolved to make the first mistake a hundred times to avoid making the second mistake even once.
- This evolutionary tendency is intensified by temperament, personal history, culture, and politics.
- Threat reactivity affects individuals, couples, families, organizations, nations, and the world as a whole.

# Results of Threat Reactivity (Personal, Organizational, National)

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- Our initial appraisals are mistaken:
  - Overestimating threats
  - Underestimating opportunities
  - Underestimating inner and outer resources
- We update these appraisals with information that confirms them; we ignore, devalue, or alter information that doesn't.
- Thus we end up with views of ourselves, others, and the world that are ignorant, selective, and distorted.

# Costs of Threat Reactivity

## (Personal, Organizational, National)

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- Feeling threatened feels bad, and triggers stress consequences.
- We over-invest in threat protection.
- The boy who cried tiger: flooding with paper tigers makes it harder to see the real ones.
- Acting while feeling threatened leads to over-reactions, makes others feel threatened, and creates vicious cycles.
- The Approach system is inhibited, so we don't pursue opportunities, play small, or give up too soon.
- In the Attach system, we bond tighter to "us," with more fear and anger toward "them."

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**Besides its impacts at the personal and organizational level, threat reactivity is a major source of prejudice, oppression, and war.**

**Reducing threat reactivity is a key way to make this world a better place.**

# Choices . . .

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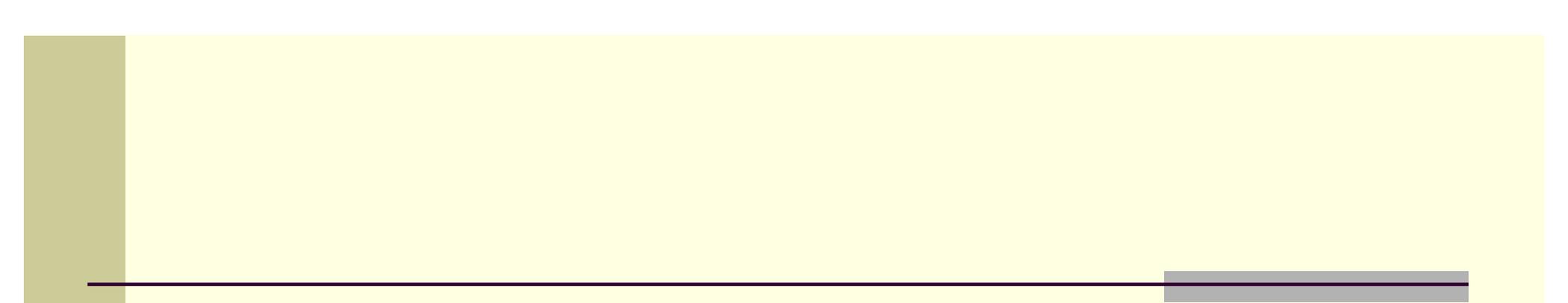


**Reactive Mode**

Or?



**Responsive Mode**



**How to come home?**

**How to recover the natural, responsive mode  
of the brain?**

# **“Taking the Fruit as the Path”**

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**Gladness**

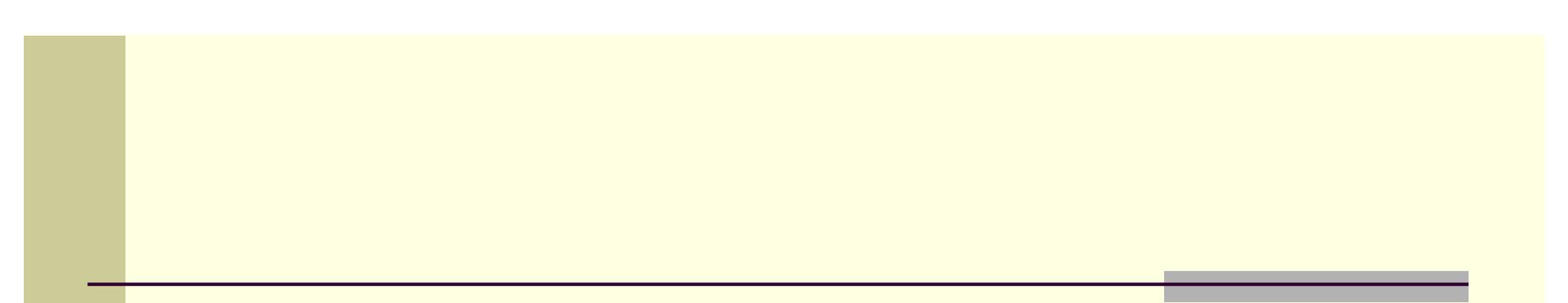
**Love**

**Peace**

# Equanimity in the Brain

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- Understanding and Intention - Conceptual in prefrontal cortex; embodied in prefrontal cortex (action tendencies), parietal cortex (perspective), limbic system (emotion), and brainstem (arousal)
- Steadiness of mind - Sustained by oversight from the anterior cingulate cortex (ACC); over time, probably becomes a whole-brain stability of attention
- Global coherence - So as not to be caught by anything, experience presents itself as a coherent whole, probably enabled by large-scale gamma wave synchronization.
- Calm and contentment - Much parasympathetic activation, inhibiting fight-flight stress reactions; underlying well-being in the core motivational systems (Avoid, Approach, Attach)



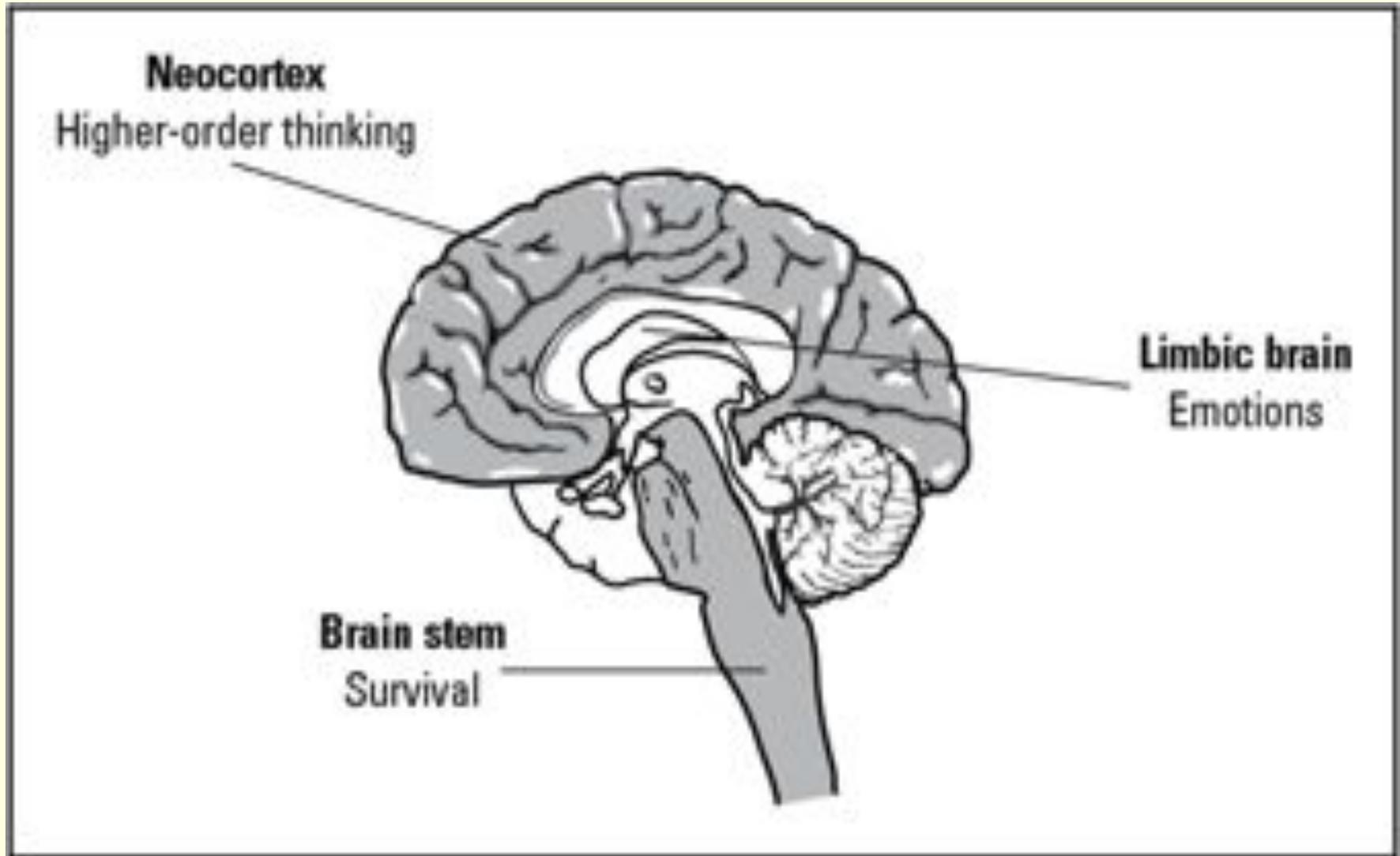
# Cooling the Fires

# Restraint

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- Virtue
  - Moral codes
  - The “bliss of blamelessness”
- Pausing - giving the prefrontal cortex time to regulate the limbic system and brain stem

# Circuits of Reactive Responses



# Restraint

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- Virtue
  - Moral codes
  - The “bliss of blamelessness”
- Pausing - giving the prefrontal cortex time to regulate the limbic system and brain stem
- Restraint promotes wisdom

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*Wisdom is . . . all about understanding the underlying spacious and empty quality of the person and of all experienced phenomena.*

*To attain this quality of deep insight, we must have a mind that is quiet and malleable.*

*Achieving such a state of mind requires that we first develop the ability to regulate our body and speech so as to cause no conflict.*

Venerable Ani Tenzin Palmo

# Benefits of Unilateral Virtue

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- It simplifies things: all you have to do is just live by your own code, and others will do whatever they do.
- It feels good in its own right.
- It minimizes inflammatory triggers, evokes good treatment, empowers you to ask for it.
- It stands you on the moral high ground.

*Remaining virtuous in the face of provocation is a profound expression of non-harming and benevolence.*

# Mindfulness of Threats and Fear

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- Mindfulness of the negativity bias itself:
  - Primes recognition of threat reactivity in general
  - Fuels correcting of cognitive errors
- Mindfulness alerts us to specific assumptions or exaggerations of threat.
- Through mindfulness, we disidentify from threat appraisals and the reactive cascade.
- Mindfulness draws us into a centered place that feels relatively strong and safe.

# Feeling Cared About

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- As we evolved, we increasingly turned to and relied on others to feel safer and less threatened.
  - Exile from the band was a death sentence in the Serengeti.
  - Attachment behaviors: relying on the secure base
  - The well-documented power of social support to buffer stress and aid recovery from painful experiences
- Methods:
  - Recognize it's kind to others to feel cared about yourself.
  - Look for occasions to feel cared about and take them in.
  - Deliberately bring to mind the experience of being cared about in challenging situations.
  - Be caring yourself.

# Parasympathetic Activation

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- Parasympathetic inhibits sympathetic and hormonal arousal.
- Attitude: Regard stressful activation as an affliction.
- Methods for stimulating the parasympathetic nervous system:
  - Multiple, long exhalations
  - Relaxing the tongue
  - Pleasant tastes
  - Relaxing the body
- Get in the habit of rapidly activating a damping cascade when the body gets aroused.
- Regard bodily activation as just another compounded, “meaningless,” and impermanent phenomenon; don’t react to it.

# Feeling Stronger and Safer

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- Be mindful of an experience of strength (e.g., physical challenge, standing up for someone).
- Staying grounded in strength, let things come to you without shaking your roots, like a mighty tree in a storm.
- Be mindful of:
  - Protections (e.g., being in a safe place, imagining a shield)
  - People who care about you
  - Resources inside and outside you
- Let yourself feel as safe as you reasonably can:
  - Noticing any anxiety about feeling safer
  - Feeling more relaxed, tranquil, peaceful
  - Releasing bracing, guardedness, vigilance

# Two Darts

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*When the uninstructed worldling experiences a painful feeling, he or she sorrows, grieves, and laments; he or she weeps beating the breast and becomes distraught. He or she feels two feelings - a bodily one and a mental one.*

*Suppose they were to strike a person with a dart, and then strike him immediately afterward with a second dart, so that the person would feel a feeling caused by two darts.*

*So too, when the uninstructed worldling experiences a painful feeling, the person feels two feelings - a bodily one and a mental one.*

# Renunciation

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- The middle way between asceticism and hedonism
- The distinction between *tanha* (craving) and *chandha* (wholesome wishes and aspirations)
- In the brain: feeling tone --> enjoying --> wanting --> pursuing
  - Wanting without enjoying is a hell.
  - Enjoying without wanting is a middle way.
- But beware: the brain usually wants (craves) and pursues (clings) to what it likes.

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*I make myself rich by making my wants few.*

Henry David Thoreau

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*The Great Way is easy.*

*For one with no preferences.*

Third Zen Patriarch

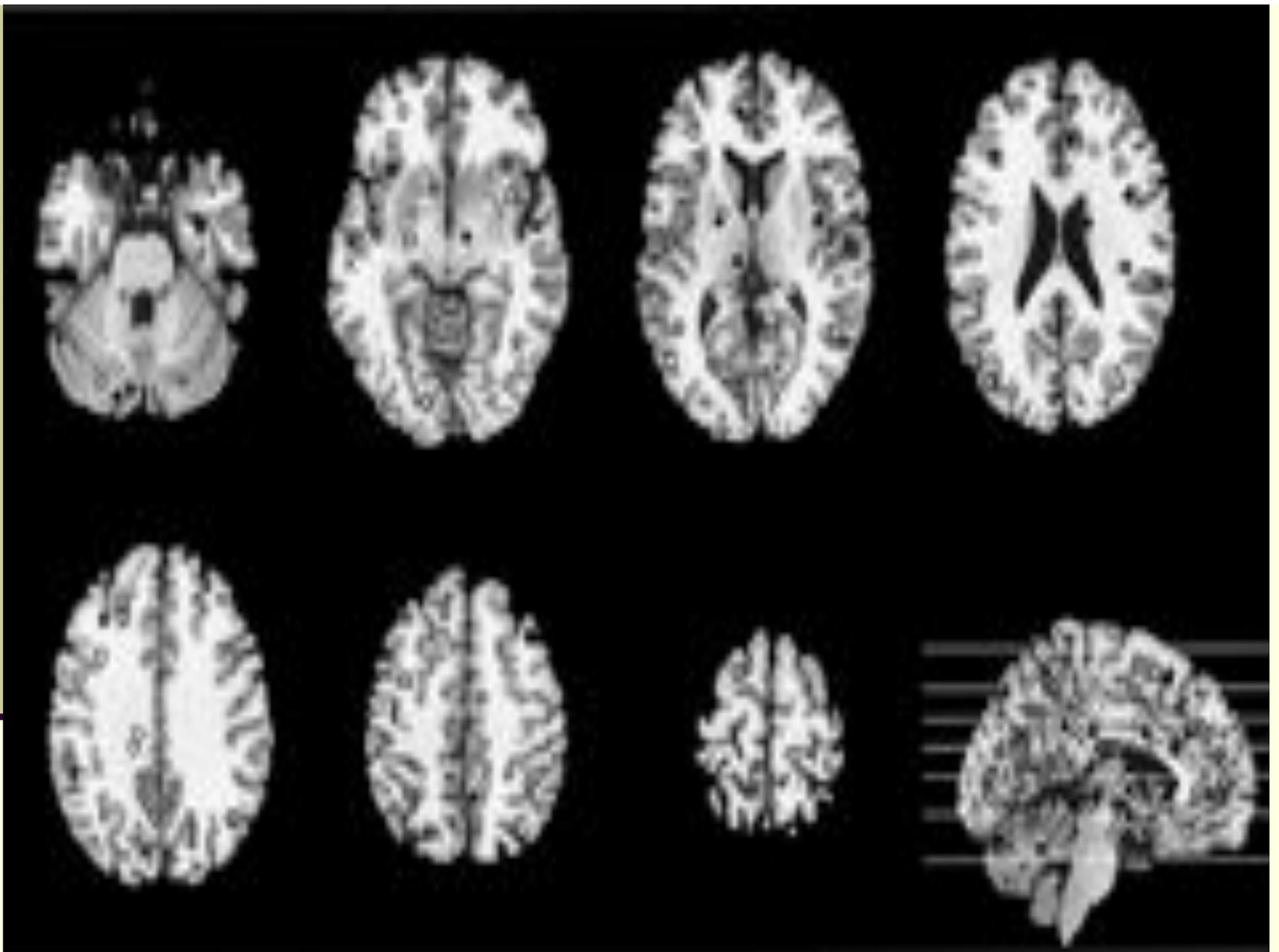
# Relaxing Selfing

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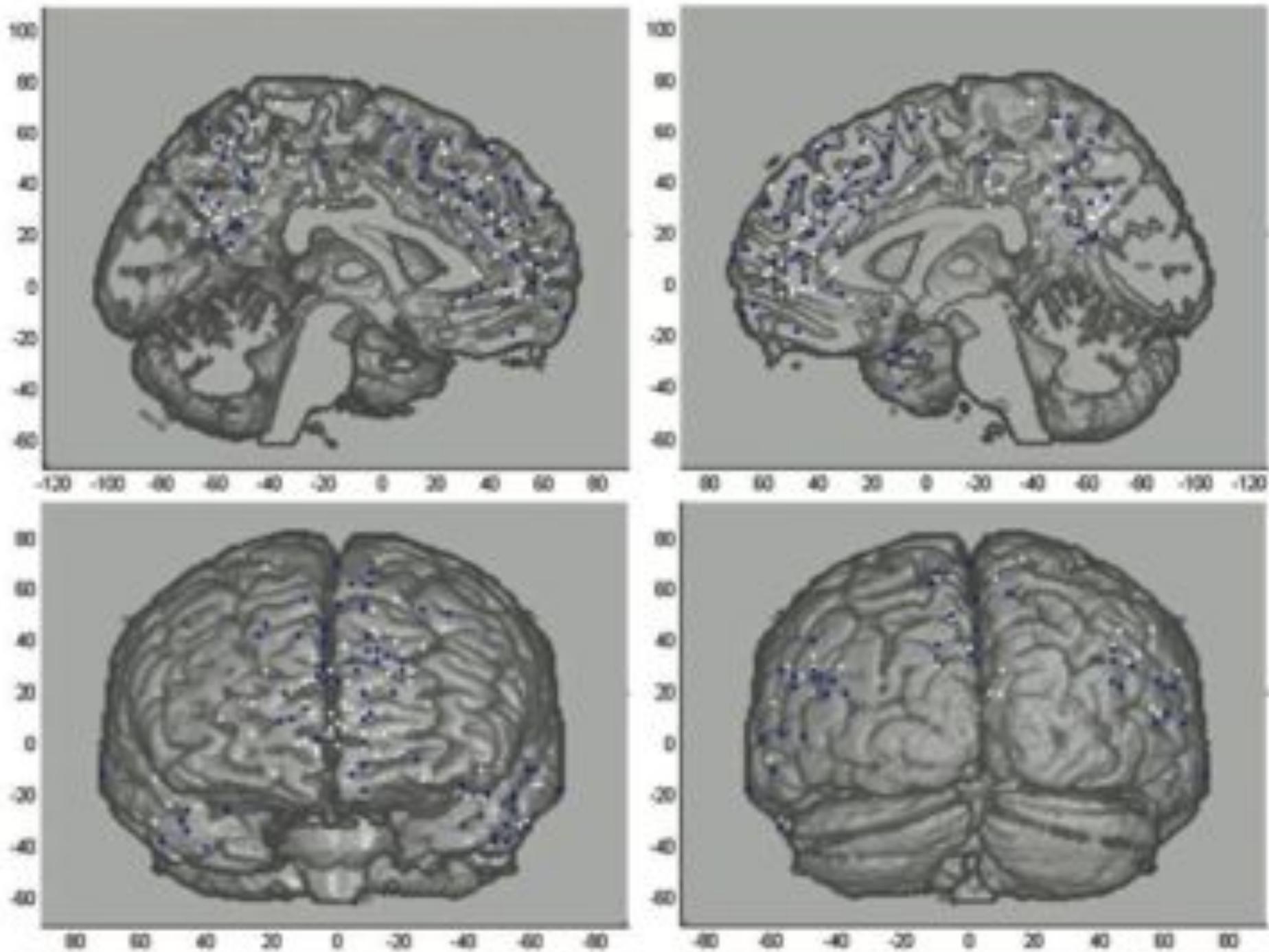
- Upsets arise within the perspective of “I.”
- What is the sense of “I” that is running at the time?  
Strong? Weak? Mistreated?
- Are you taking things personally?
- What happens when you relax selfing?

*The worst things in my life never actually happened to me.*

Oscar Wilde



Brain activations of “selfing” - Gillihan, et al., *Psychological Bulletin*, 1/2005



Legrand and Ruby, 2009. What is self-specific? *Psychological Review* [White = self; blue = other]

# Relaxing Selfing

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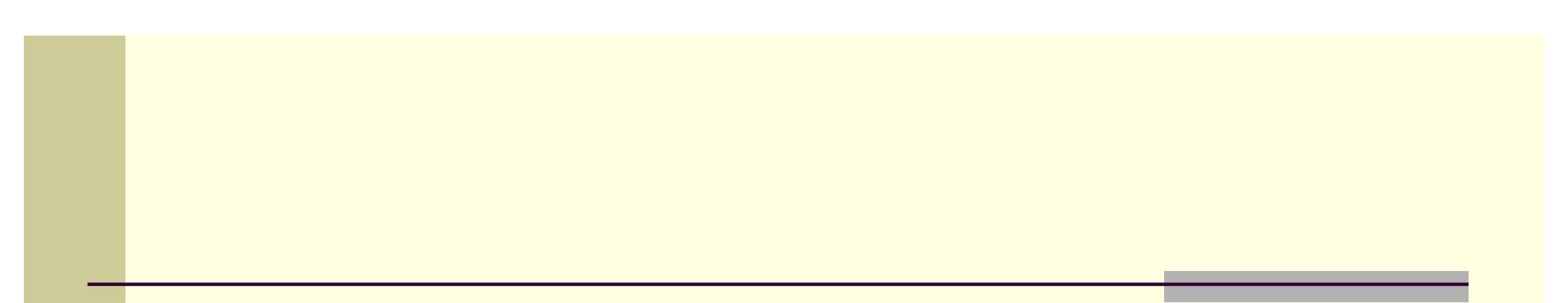
Oscar Wilde

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*Indeed, the sage who's fully quenched  
Rests at ease in every way;  
No sense desire adheres to him or her  
Whose fires have cooled, deprived of fuel.*

*All attachments have been severed,  
The heart's been led away from pain;  
Tranquil, he or she rests with utmost ease.  
The mind has found its way to peace.*

The Buddha



# Healing Old Pain

# How to Take in the Good

---

1. Look for positive **facts**, and let them become positive experiences.
2. Savor the positive experience:
  - Sustain it for 10-20-30 seconds.
  - Feel it in your body and emotions.
  - Intensify it.
3. Sense and intend that the positive experience is soaking into your brain and body - registering deeply in emotional memory.

# Using Memory Mechanisms to Help Heal Painful Experiences

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- The machinery of memory:
  - When explicit or implicit memory is re-activated, it is re-built from schematic elements, not retrieved *in toto*.
  - When attention moves on, elements of the memory get re-consolidated.
- The open processes of memory activation and consolidation create a window of opportunity for shaping your internal world.
- Activated memory tends to associate with other things in awareness (e.g., thoughts, sensations), esp. if they are prominent and lasting.
- When memory goes back into storage, it takes associations with it.
- You can imbue implicit and explicit memory with positive associations.

# The Fourth Step of TIG

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- When you are having a positive experience:
  - Sense the current positive experience sinking down into old pain, and soothing and replacing it.
- When you are having a negative experience:
  - Bring to mind a positive experience that is its antidote.
- In both cases, have the positive experience be big and strong, in the forefront of awareness, while the negative experience is small and in the background.
- You are not resisting negative experiences or getting attached to positive ones. You are being kind to yourself and cultivating positive resources in your mind.

# TIG4 Capabilities, Resources, Skills

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- Capabilities:
  - Dividing attention
  - Sustaining awareness of the negative material without getting sucked in (and even retraumatized)
  
- Resources:
  - Self-compassion
  - Internalized sense of affiliation
  
- Skills:
  - Internalizing “antidotes”
  - Accessing “the tip of the root”

# Psychological Antidotes

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## Approaching Opportunities

- Satisfaction, fulfillment --> Frustration, disappointment
- Gladness, gratitude --> Sadness, discontentment, “blues”

## Affiliating with “Us”

- Attunement, inclusion --> Not seen, rejected, left out
- Recognition, acknowledgement --> Inadequacy, shame
- Friendship, love --> Abandonment, feeling unloved or unlovable

## Avoiding Threats

- Strength, efficacy --> Weakness, helplessness, pessimism
- Safety, security --> Alarm, anxiety
- Compassion for oneself and others --> Resentment, anger

# The Tip of the Root

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- For the fourth step of TIG, try to get at the youngest, most vulnerable layer of painful material.
- The “tip of the root” is commonly in childhood. In general, the brain is most responsive to negative experiences in early childhood.
- Prerequisites
  - Understanding the need to get at younger layers
  - Compassion and support for the inner child
  - Capacity to “presence” young material without flooding

# TIG and Trauma

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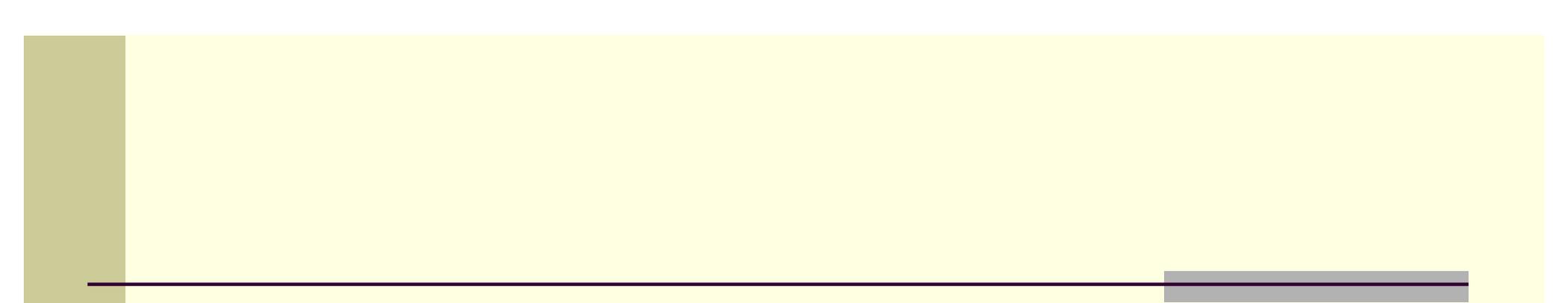
- General considerations:
  - People vary in their resources and their traumas.
  - Often the major action is with “failed protectors.”
  - Cautions for awareness of internal states, including positive
  - Respect “yellow lights” and the client’s pace.
- The first three steps of TIG are generally safe. Use them to build resources for tackling the trauma directly.
- As indicated, use the fourth step of TIG to address the peripheral features and themes of the trauma.
- Then, with care, use the fourth step to get at the heart of the trauma.

*First of all, do no harm.*

# Benefits of Positive Emotions

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- The benefits of positive emotions are a proxy for many of the benefits of Taking in the Good.
- Emotions organize the brain as a whole, so positive ones have far-reaching benefits
- These include:
  - Stronger immune system; less stress-reactive cardiovascular
  - Lift mood; increase optimism, resilience
  - Counteract trauma
  - Promote exploratory, “approach” behaviors
  - Create positive cycles



# **Spacious Awareness**

# Dual Modes

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## “Doing”

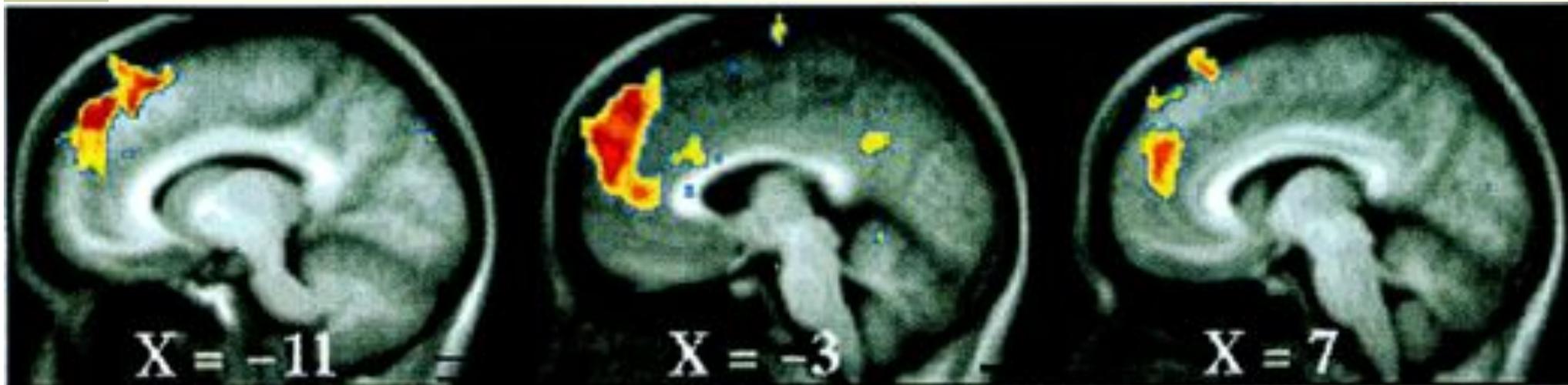
Mainly representational  
Much verbal activity  
Abstract  
Future- or past-focused  
Goal-directed  
Sense of craving  
Personal, self-oriented perspective  
Focal view  
Firm beliefs  
Evaluative  
Lost in thought, mind wandering  
Reverberation and recursion  
Tightly connected experiences  
Prominent self-as-object  
Prominent self-as-subject

## “Being”

Mainly sensory  
Little verbal activity  
Concrete  
Now-focused  
Nothing to do, nowhere to go  
Sense of peace  
Impersonal, 3<sup>rd</sup> person perspective  
Panoramic view  
Uncertainty, not-knowing  
Nonjudgmental  
Mindful presence  
Immediate and transient;  
Loosely connected experiences  
Minimal or no self-as-object  
Minimal or no self-as-subject

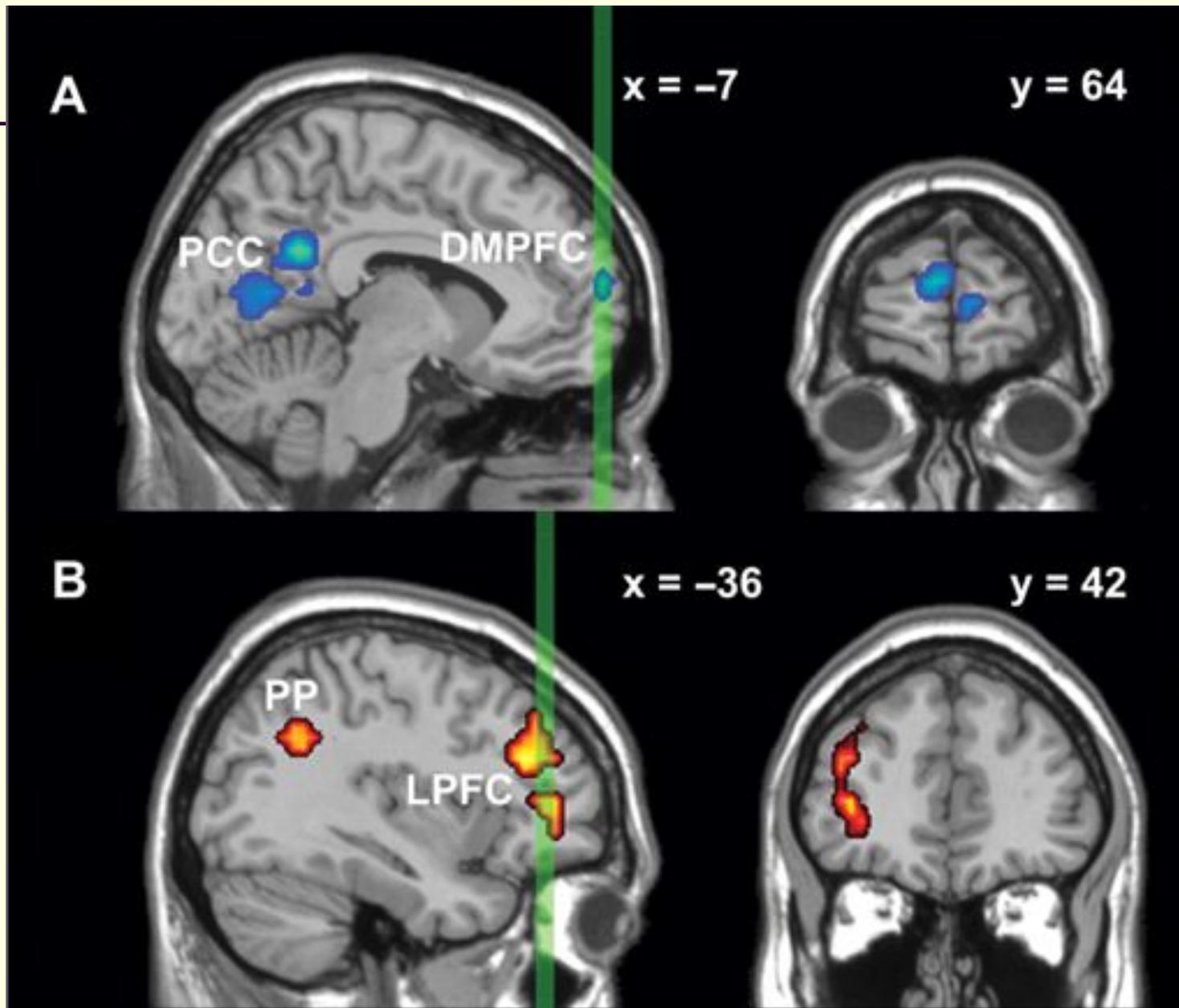
# Increased Medial PFC Activation Related to Self-Referencing Thought

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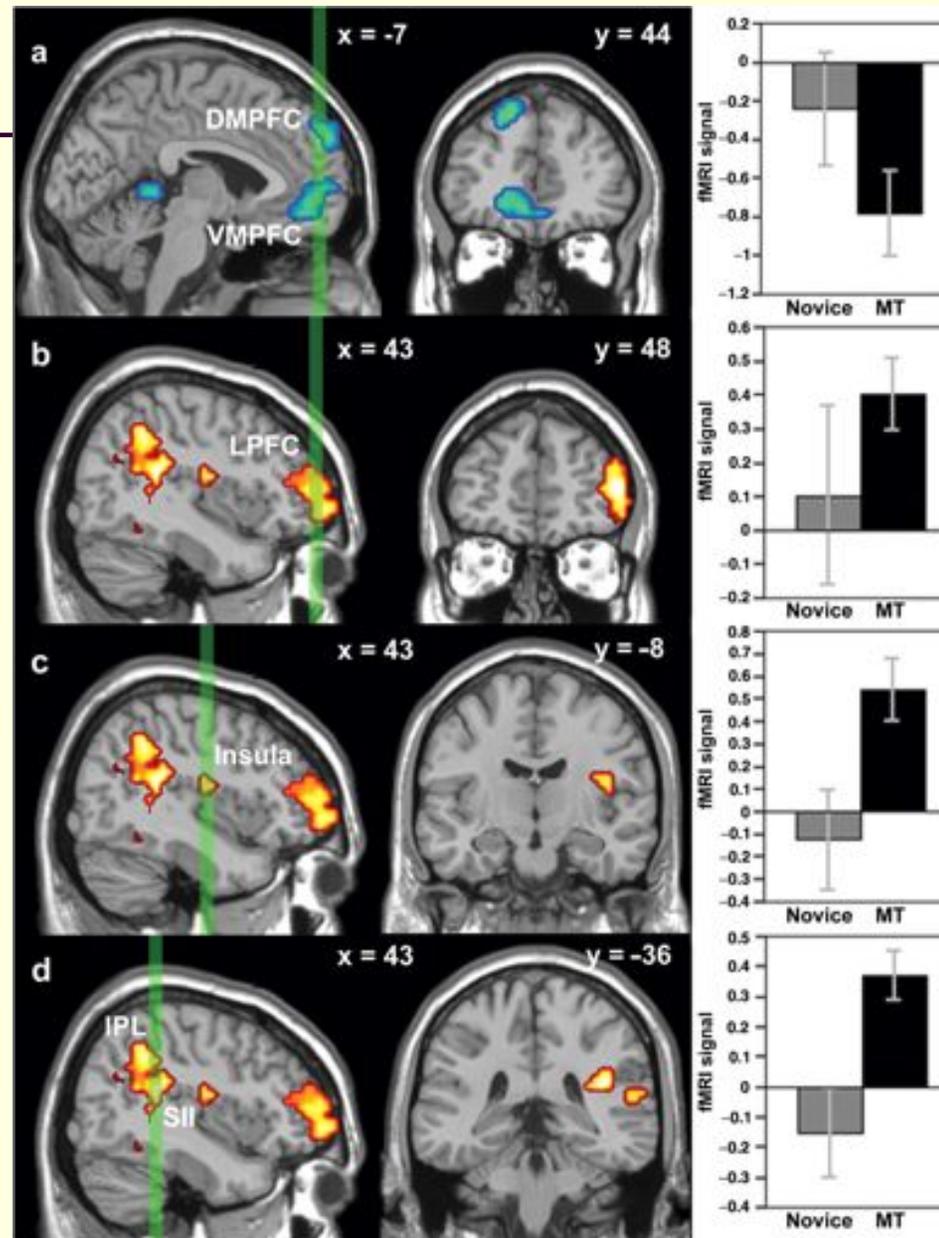
Gusnard D. A., et.al. 2001. *PNAS*, 98:4259-4264

# Self-Focused (blue) and Open Awareness (red) Conditions (in the novice, pre MT group)



Farb, et al. 2007. *Social Cognitive Affective Neuroscience*, 2:313-322

# Self-Focused (blue) vs Open Awareness (red) Conditions (following 8 weeks of MT)



# Dual Modes

---

## “Doing”

Mainly representational  
Much verbal activity  
Abstract  
Future- or past-focused  
Goal-directed  
Sense of craving  
Personal, self-oriented perspective  
Focal view  
Firm beliefs  
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# Ways to Activate “Being” Mode

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- Relax
- Focus on bare sensations and perceptions
- Sense the body as a whole
- Take a panoramic, “bird’s-eye” view
- Engage “don’t-know mind”; release judgments
- Don’t try to connect mental contents together
- Let experience flow, staying here now
- Relax the sense of “I, me, and mine”

# Whole Body Awareness

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- Sense the breath in one area (e.g., chest, upper lip)
- Sense the breath as a whole: one gestalt, percept
- Sense the body as a whole, a whole body breathing
- Sense experience as a whole: sensations, sounds, thoughts . . . all arising together as one unified thing
- It's natural for this sense of the whole to be present for a second or two, then crumble; just open up to it again and again.

# Panoramic Awareness

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- Recall a bird's-eye view (e.g., mountain, airplane)
- Be aware of sounds coming and going in an open space of awareness, without any edges: boundless
- Open to other contents of mind, coming and going like clouds moving across the sky.
- Pleasant or unpleasant, no matter: just more clouds
- No cloud ever harms or taints the sky.

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*If you let go a little, you will have a little happiness.*

*If you let go a lot, you will have a lot of happiness.*

*If you let go completely, you will be completely happy.*

Ajahn Chah

---

*In the deepest forms of insight,  
we see that things change so quickly  
that we can't hold onto anything,  
and eventually the mind lets go of clinging.*

*Letting go brings equanimity.  
The greater the letting go, the deeper the equanimity.  
In Buddhist practice, we work to expand  
the range of life experiences in which we are free.*

U Pandita

# Spacious Awareness

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- Open space of awareness
- Experiences come and go like clouds moving across the sky.
- Feeling tones are just more clouds.
- No cloud ever harms or taints the sky.

*Trust in awareness, in being awake,  
rather than in transient and unstable conditions.*

Ajahn Sumedho

# A Serenity Prayer

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*May I find the serenity to accept the things that cannot be changed,  
the courage to change the things which should be changed,  
and the wisdom to distinguish the one from the other.*

*Living one day at a time,  
Enjoying one moment at a time,  
Accepting hardship as a pathway to peace,  
Taking this imperfect world as it is,  
Not as I would have it,  
Trusting in my refuges,  
May I be reasonably happy in this life,  
And supremely happy forever some day.*

# Equanimity Sampler

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- Self-compassion and self-goodwill
- Intention
- Relaxation
- Safety
- Well-being
- Panoramic view
- Taking in benefits
- Steadiness of mind
- Whole body experiencing
- Noticing feeling tone, and relaxing reactions
- Finding contentment in simply being, relaxing “greed”
- Feeling connected, relaxing “heartache”
- Feeling peaceful, relaxing “hatred”
- Surrendering to impermanence

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*Penetrative insight*

*joined with calm abiding*

*utterly eradicates*

*afflicted states.*

Shantideva

# Great Books

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See [www.RickHanson.net](http://www.RickHanson.net) for other great books.

- Austin, J. 2009. *Selfless Insight*. MIT Press.
- Begley, S. 2007. *Train Your Mind, Change Your Brain*. Ballantine.
- Carter, C. 2010. *Raising Happiness*. Ballantine.
- Hanson, R. (with R. Mendius). 2009. *Buddha's Brain: The Practical Neuroscience of Happiness, Love, and Wisdom*. New Harbinger.
- Johnson, S. 2005. *Mind Wide Open*. Scribner.
- Keltner, D. 2009. *Born to Be Good*. Norton.
- Kornfield, J. 2009. *The Wise Heart*. Bantam.
- LeDoux, J. 2003. *Synaptic Self*. Penguin.
- Linden, D. 2008. *The Accidental Mind*. Belknap.
- Sapolsky, R. 2004. *Why Zebras Don't Get Ulcers*. Holt.
- Siegel, D. 2007. *The Mindful Brain*. Norton.
- Thompson, E. 2007. *Mind in Life*. Belknap.

# Key Papers - 1

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See [www.RickHanson.net](http://www.RickHanson.net) for other scientific papers.

- Atmanspacher, H. & Graben, P. 2007. Contextual emergence of mental states from neurodynamics. *Chaos & Complexity Letters*, 2:151-168.
- Baumeister, R., Bratlavsky, E., Finkenauer, C. & Vohs, K. 2001. Bad is stronger than good. *Review of General Psychology*, 5:323-370.
- Braver, T. & Cohen, J. 2000. On the control of control: The role of dopamine in regulating prefrontal function and working memory; in *Control of Cognitive Processes: Attention and Performance XVIII*. Monsel, S. & Driver, J. (eds.). MIT Press.
- Carter, O.L., Callistemon, C., Ungerer, Y., Liu, G.B., & Pettigrew, J.D. 2005. Meditation skills of Buddhist monks yield clues to brain's regulation of attention. *Current Biology*, 15:412-413.

# Key Papers - 2

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- Davidson, R.J. 2004. Well-being and affective style: neural substrates and biobehavioural correlates. *Philosophical Transactions of the Royal Society*, 359:1395-1411.
- Farb, N.A.S., Segal, Z.V., Mayberg, H., Bean, J., McKeon, D., Fatima, Z., and Anderson, A.K. 2007. Attending to the present: Mindfulness meditation reveals distinct neural modes of self-reflection. *SCAN*, 2, 313-322.
- Gillihan, S.J. & Farah, M.J. 2005. Is self special? A critical review of evidence from experimental psychology and cognitive neuroscience. *Psychological Bulletin*, 131:76-97.
- Hagmann, P., Cammoun, L., Gigandet, X., Meuli, R., Honey, C.J., Wedeen, V.J., & Sporns, O. 2008. Mapping the structural core of human cerebral cortex. *PLoS Biology*, 6:1479-1493.
- Hanson, R. 2008. Seven facts about the brain that incline the mind to joy. In *Measuring the immeasurable: The scientific case for spirituality*. Sounds True. 102

# Key Papers - 3

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- Lazar, S., Kerr, C., Wasserman, R., Gray, J., Greve, D., Treadway, M., McGarvey, M., Quinn, B., Dusek, J., Benson, H., Rauch, S., Moore, C., & Fischl, B. 2005. Meditation experience is associated with increased cortical thickness. *Neuroreport*, 16:1893-1897.
- Lewis, M.D. & Todd, R.M. 2007. The self-regulating brain: Cortical-subcortical feedback and the development of intelligent action. *Cognitive Development*, 22:406-430.
- Lieberman, M.D. & Eisenberger, N.I. 2009. Pains and pleasures of social life. *Science*, 323:890-891.
- Lutz, A., Greischar, L., Rawlings, N., Ricard, M. and Davidson, R. 2004. Long-term meditators self-induce high-amplitude gamma synchrony during mental practice. *PNAS*, 101:16369-16373.
- Lutz, A., Slager, H.A., Dunne, J.D., & Davidson, R. J. 2008. Attention regulation and monitoring in meditation. *Trends in Cognitive Sciences*, 12:163-169.

# Key Papers - 4

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- Rozin, P. & Royzman, E.B. 2001. Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5:296-320.
- Takahashi, H., Kato, M., Matsuura, M., Mobbs, D., Suhara, T., & Okubo, Y. 2009. When your gain is my pain and your pain is my gain: Neural correlates of envy and schadenfreude. *Science*, 323:937-939.
- Tang, Y.-Y., Ma, Y., Wang, J., Fan, Y., Feng, S., Lu, Q., Yu, Q., Sui, D., Rothbart, M.K., Fan, M., & Posner, M. 2007. Short-term meditation training improves attention and self-regulation. *PNAS*, 104:17152-17156.
- Thompson, E. & Varela F.J. 2001. Radical embodiment: Neural dynamics and consciousness. *Trends in Cognitive Sciences*, 5:418-425.
- Walsh, R. & Shapiro, S. L. 2006. The meeting of meditative disciplines and Western psychology: A mutually enriching dialogue. *American Psychologist*, 61:227-239.

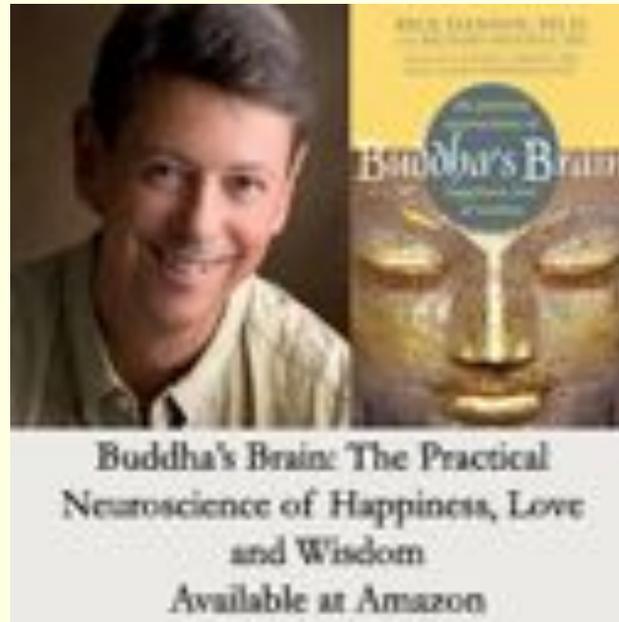
## *Where to Find Rick Hanson Online*

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<http://www.youtube.com/BuddhasBrain>

<http://www.facebook.com/BuddhasBrain>



[www.RickHanson.net](http://www.RickHanson.net)

[www.WiseBrain.org](http://www.WiseBrain.org)