

# *Couples Conference* 2012

Attachment  
Differentiation  
& Neuroscience



In Couples  
Therapy

*April 27<sup>th</sup> - April 29<sup>th</sup>*  
*San Mateo, California*

# ***Taking in the Good:***

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## ***The Mindful Internalization Of Resource Experiences For Love and Intimacy***

**Love & Intimacy:**

**The Couples Conference**

**April 29, 2012**

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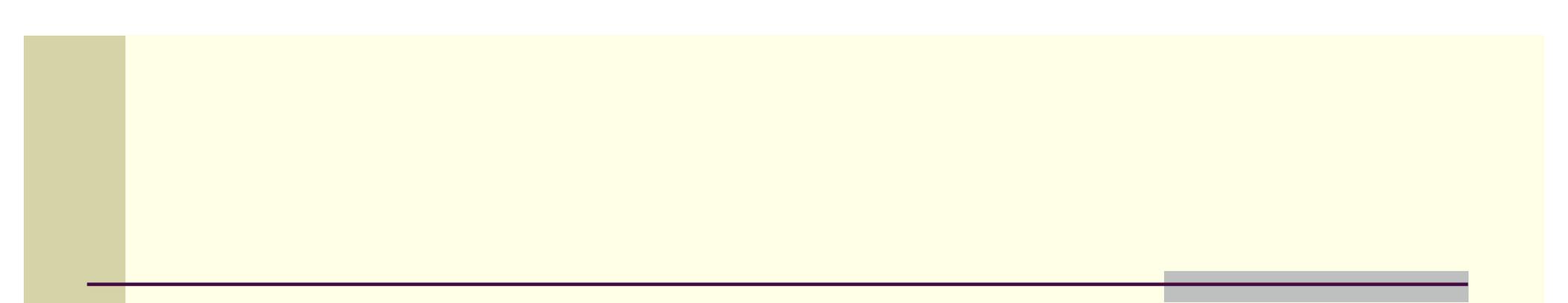
[WiseBrain.org](http://WiseBrain.org) [RickHanson.net](http://RickHanson.net)

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# Topics

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- **Experience-dependent neuroplasticity**
- **The negativity bias**
- **The power of attention**
- **Taking in the good**



# **Experience-Dependent Neuroplasticity**

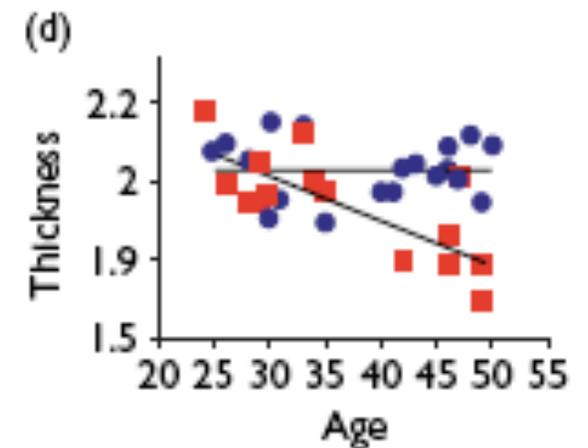
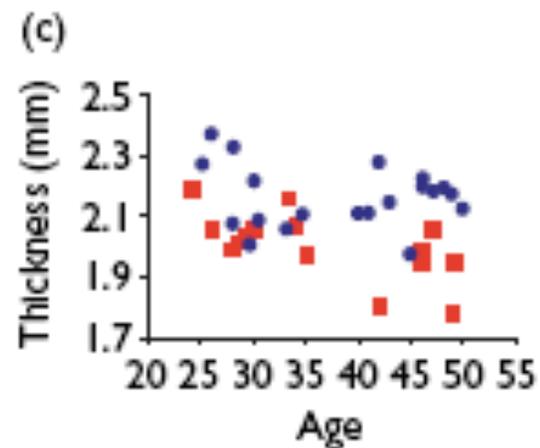
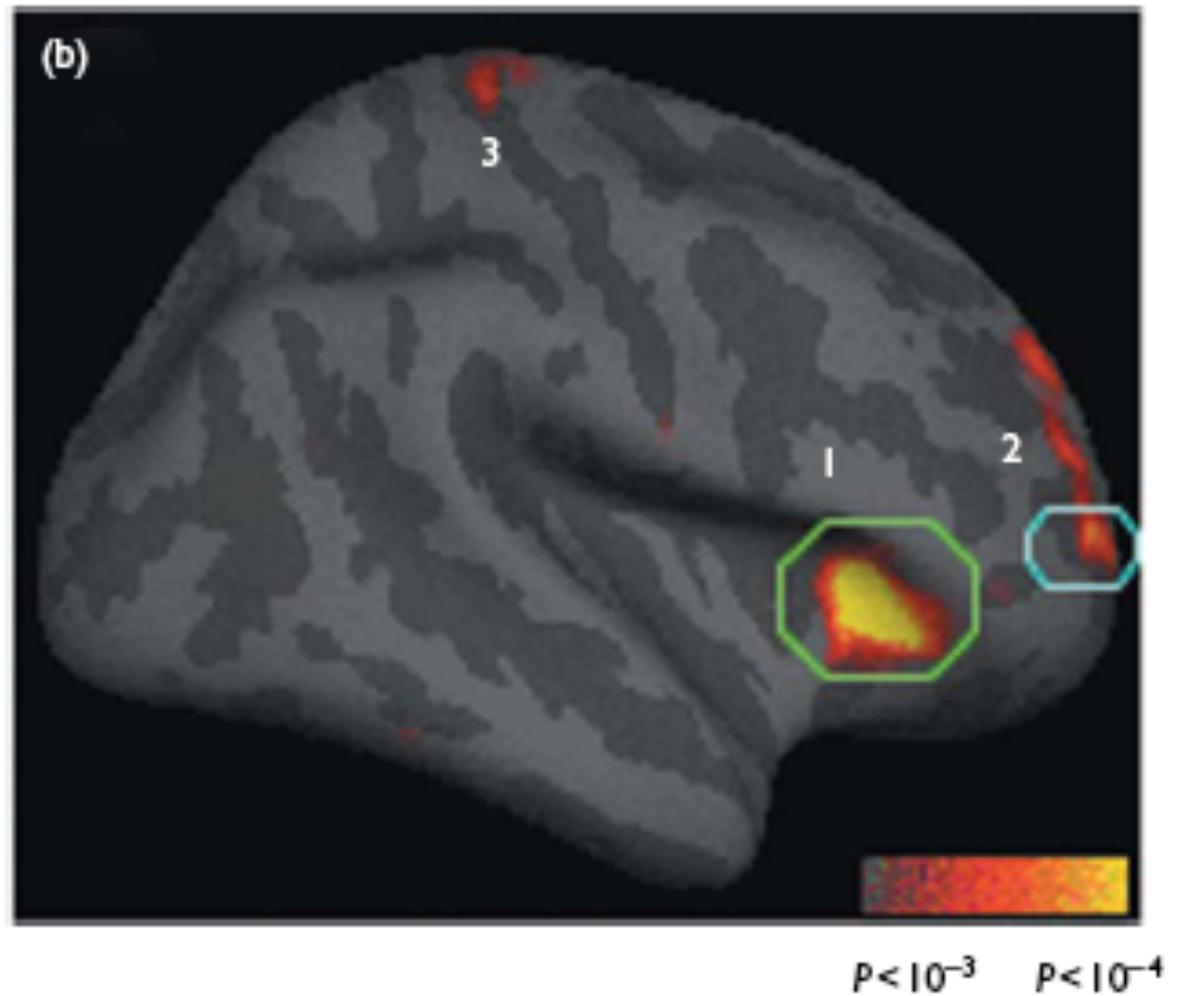


# Mind Changes Brain in Lasting Ways

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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.

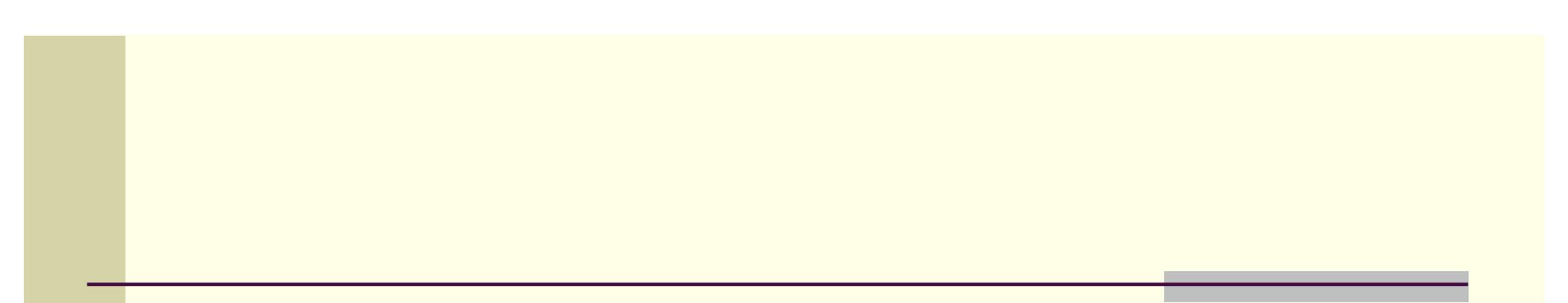


# Honoring Experience

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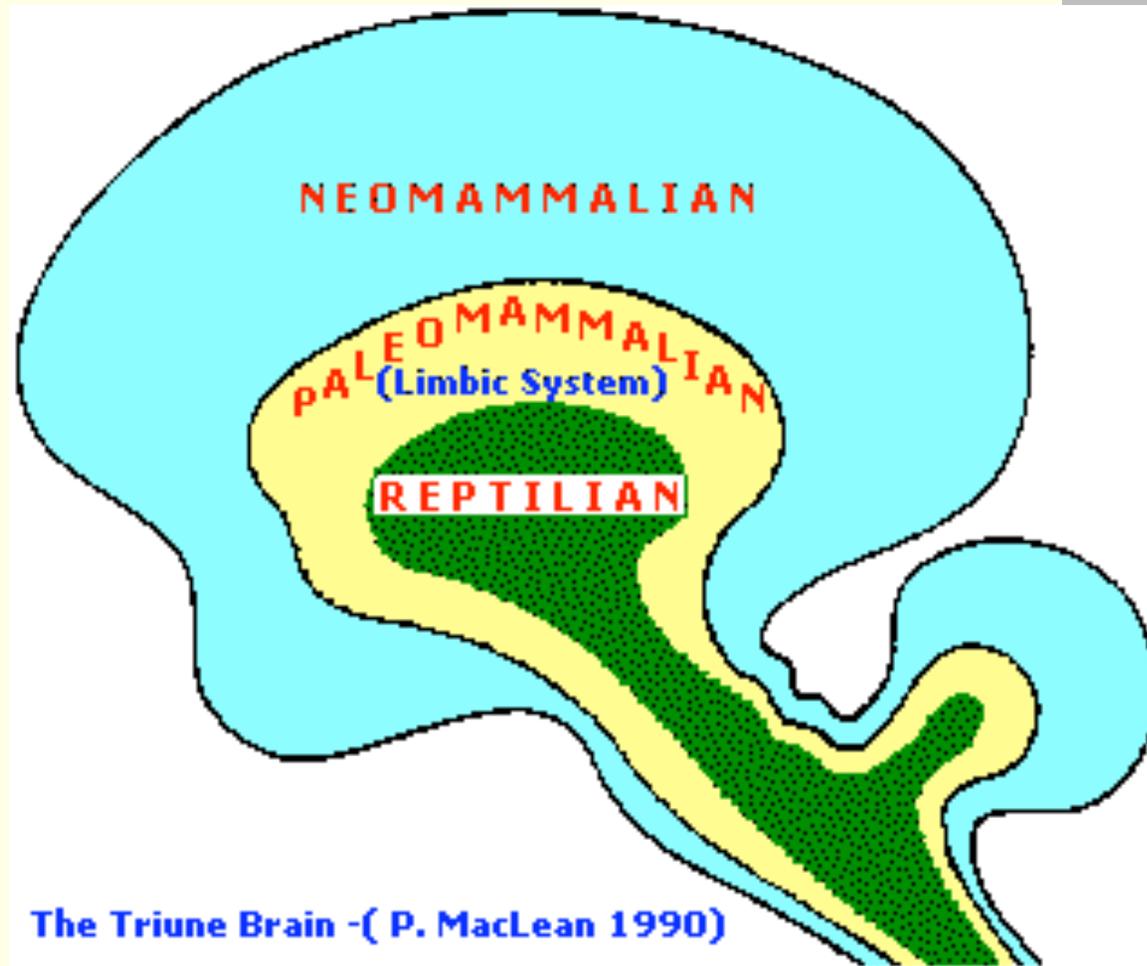
**One's experience *matters*.**

**Both for how it feels in the moment  
and for the lasting residues it leaves behind,  
woven into the fabric of a person's brain and being.**



# **The Negativity Bias**

# Evolutionary History



## The Triune Brain

# Negative Experiences Can Have Benefits

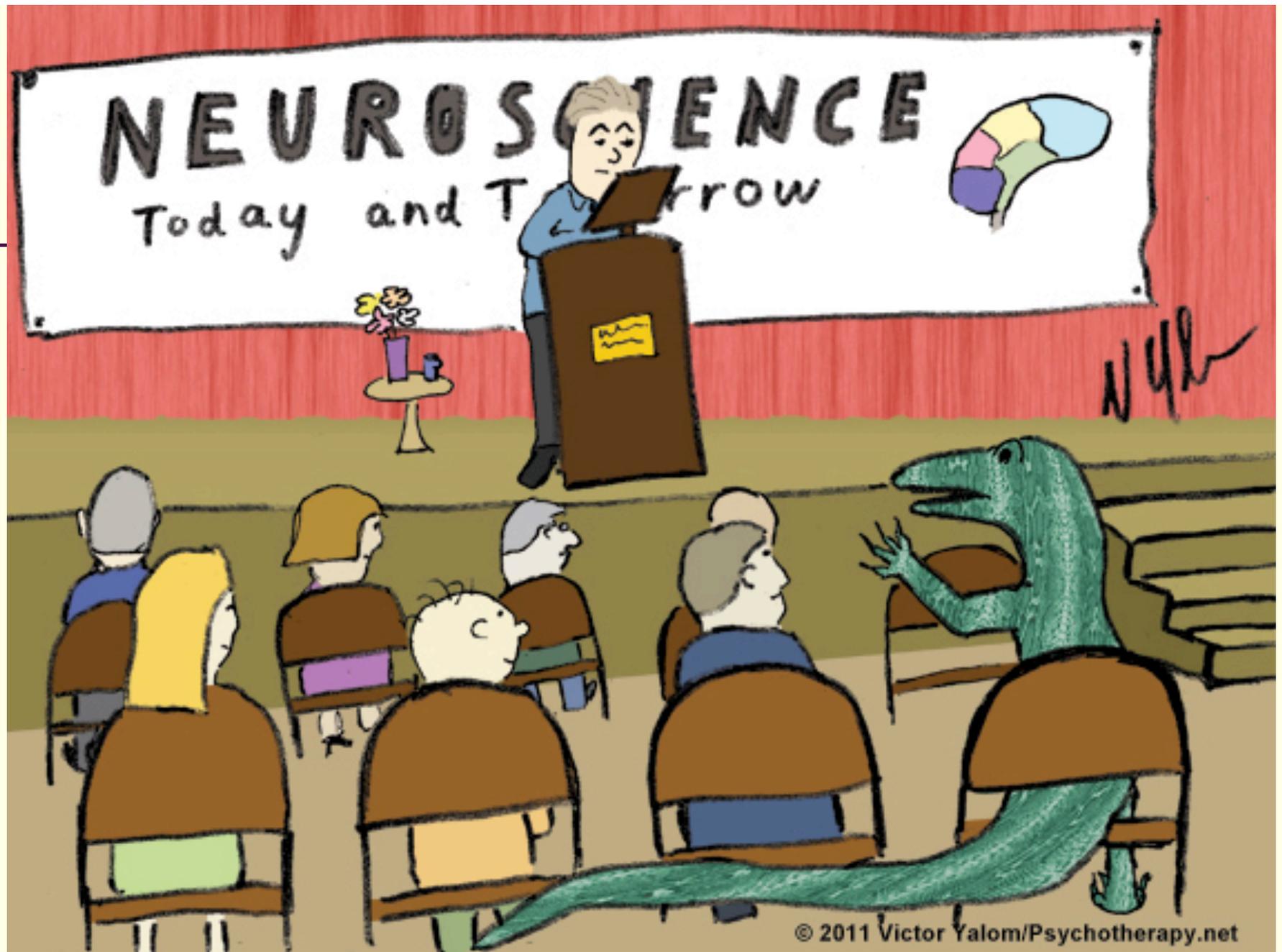
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- A place for negative emotions:
  - Anxiety alerts us to inner and outer threats
  - Sorrow opens the heart
  - Remorse helps us steer a virtuous course
  - Anger highlights mistreatment; energizes to handle it
- Negative experiences can:
  - Increase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

# 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>12</sup>  
- no more carrots forever.



**"With all due respects, I find your disparaging remarks about the 'reptilian brain' unnecessary"**

# Negativity Bias: Physiology and Neuropsychology

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- Physiology:
  - Greater bodily arousal to negative stimuli
  - Pain is produced anywhere; pleasure is circumscribed.
- Neuropsychology:
  - Separate, low-level systems for negative and positive stimuli
  - Right hemisphere specialized for negative stimuli
  - Greater brainwave responses to negative stimuli
  - ~ 65% of amygdala sifts for negative stimuli
  - The amygdala-hippocampus system flags negative experiences prominently in memory: *like Velcro for negative experiences but Teflon for positive ones.*
  - More negative “basic” emotions than positive ones

# Negativity Bias: Some Consequences

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- Negative stimuli get more attention and processing.
- We generally learn faster from pain than pleasure.
- People work harder to avoid a loss than attain an equal gain (“endowment effect”)
- Easy to create learned helplessness, hard to undo
- Negative interactions: more powerful than positive
- Negative experiences sift into implicit memory.

# Negative Experiences Are Stressful

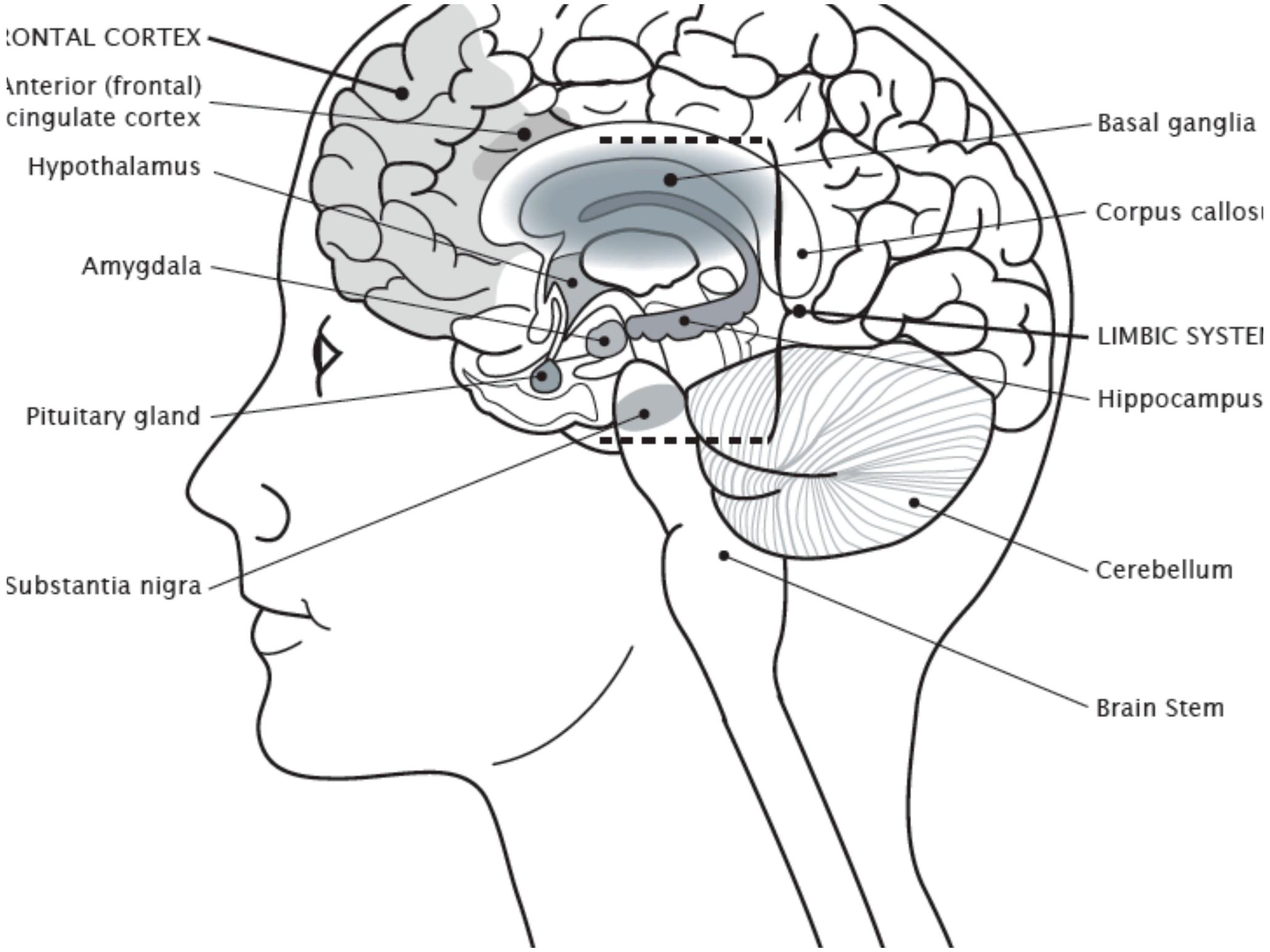
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- Sympathetic nervous system (SNS) and hypothalamic-pituitary-adrenal axis (HPAA)
- Surges of cortisol, norepinephrine, other hormones
- Fight, flight, or freezing behaviors
- Abandoning long-term needs for a short-term crisis

# Neural Consequences of Negative Experiences

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- Amygdala initiates stress response (“alarm bell”)
- 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



FRONTAL CORTEX

Anterior (frontal) cingulate cortex

Hypothalamus

Amygdala

Pituitary gland

Substantia nigra

Basal ganglia

Corpus callosum

LIMBIC SYSTEM

Hippocampus

Cerebellum

Brain Stem

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# Negativity Bias: Consequences for Couples

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- Scan for negative stimuli, fixate on it, lose sight of context, react strongly, and fast-track the whole package into storage.
- Intensify sensory, emotional, cognitive, and behavioral reactions
- Rapidly acquired sense of defeat, futility, helplessness
- Internal vicious cycles
  - Immediate (e.g., rising blood pressure sensitizes us to irritants)
  - Long-term (e.g., sensitizing amygdala and weakening hippocampus)
- External vicious cycles
  - Sensitization
  - Escalation
  - Systemic (e.g., pursuer/distancer, triangulation)

# A Poignant Truth

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Mother Nature is tilted toward producing gene copies.

But tilted against personal quality of life.

And at the societal level, we have caveman/cavewoman brains armed with nuclear weapons.

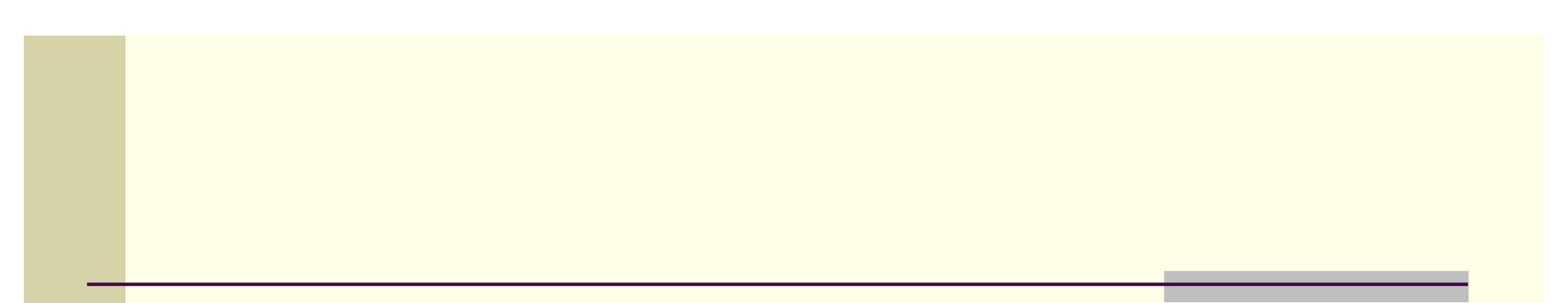
*What shall we do?*

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*We can deliberately use the mind  
to change the brain for the better.*

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**In essence, how can we actively internalize resources in implicit memory - making the brain like Velcro for positive experiences, but Teflon for negative ones?**



# **The Power of Attention**

# Why Attention Matters

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- In the “stage” of awareness, attention is like a spotlight, illuminating what it rests upon.
- Because neuroplasticity is heightened for what we pay attention to, attention is also like a vacuum cleaner, sucking its contents into the brain.
- Directing attention skillfully is therefore a fundamental way to shape the brain - and one’s life - over time.

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

William James

# Mindfulness

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**Mindfulness** is sustained attentiveness, typically with a metacognitive awareness of being aware.

Associated qualities include intention, openness, acceptance, and staying in the present.

# Being with, Releasing, Replacing

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- There are three phases of psychological healing and personal growth (and spiritual practice):
  - Be mindful of, release, replace.
  - Let be, let go, let in.
- Mindfulness is key to the second and third phase, sometimes curative on its own, and always beneficial in strengthening its neural substrates. But often it is not enough by itself.
- And sometimes you need to skip to the third phase to build resources for mindfulness.

# Taking in the Good

# The Importance of Inner Resources

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- Examples:
  - Freud's "positive introjects"
  - Intrapersonal factors/processes of resilience, such as: learned optimism, emotional intelligence, "ego strength," self-worth, determination, problem-solving skills, and personally meaningful spirituality
  
- Benefits
  - Lift mood and increase positive emotions: many physical and mental health benefits
  - Improve self-regulation
  - Improve outlook on world, self, and future
  - Increase resilience

# Learning and Memory

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- The sculpting of the brain by experience is memory:
  - Explicit - Personal recollections; semantic memory
  - Implicit - Bodily states; emotional tendencies; “views” (expectations, object relations, perspectives); behavioral repertoire and inclinations; what it feels like to be “me”
- Implicit memory is much larger than explicit memory. Resources are embedded mainly in implicit memory.
- Therefore, the key target is implicit memory. What matters most are not recollections of positive *events* but implicit residues of positive *experiences*.

# Factors of Neuroplasticity

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## ■ Physiological:

- Norepinephrine (moderate), dopamine, BDNF
- Neurogenesis (promote by exercise, complexity, stimulation)

## ■ Mental:

- Memory priming through intention
- Target material:
  - In awareness and receives focused attention
  - Sustained, multisensory, intense, novel, personally relevant, actively engaged
  - Is (alas) negative

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**Just having positive experiences is not enough.**

**They pass through the brain like water through a sieve, while negative experiences are caught.**

**We need to engage positive experiences actively to weave them into the brain.**

# How to Take in the Good (TIG)

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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.

# Types of Good Facts

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- Conditions (e.g., food, shelter, fresh air, have friends, dog loves you, flowers blooming, ain't dead yet)
- Events (e.g., finished a load of laundry, someone was friendly to you, this cookie tastes good)
- Qualities within oneself (e.g., fairness, decency, determination, good at baking, loving toward kids)

# Types of Good Experiences

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## Avoiding Harms

- Feeling basically alright right now
- Feeling protected, strong, safe, at peace

## Attaining Rewards

- Everyday sensual pleasures
- Satisfactions in accomplishing goals
- Feeling glad, grateful, contented, fulfilled
- Therapeutic, spiritual, or existential realizations

## Attaching to Others

- Feeling included, seen, liked, appreciated, loved
- Feeling compassionate, kind, generous, loving

# Components of a Good Experience

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- Bodily states - healthy arousal; PNS; vitality
- Emotions - both feelings and mood
- Views - expectations; object relations; perspectives on self, world, past and future
- Behaviors - repertoire; inclinations

# Occasions for Taking in the Good

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- Intentionality regarding good facts
  - Bumping into
  - Recalling
  - Looking for
  - Creating
  - Imagining
  
- Occasions
  - On the fly
  - At specific times (e.g., meals, before bed)
  - When prompted (e.g., by a therapist)

# Resources for Taking in the Good

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- Intention; willing to feel good
- Identified target experience
- Openness to the experience; embodiment
- Mindfulness of the steps of TIG to sustain them
- Working through obstructions

# Obstructions to Taking in the Good

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## ■ General

- Distractibility
- Blocks to self-awareness in general

## ■ Specific

- Fears of losing one's edge or lowering one's guard
- Sense of disloyalty to others (e.g., survivor guilt)
- Culture (e.g., selfish, vain, sinful)
- Gender style
- Associations to painful states
- Secondary gains in feeling bad
- Not wanting to let a partner off the hook

# Implicit TIG in Therapy

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- Drawing attention to good facts
- Encouraging a positive response to a good fact
- Drawing attention to key aspects of an experience
- Slowing the client down; not moving on
- Linking rewards to desired thoughts and actions
- Doing TIG oneself

# Explicit TIG in Therapy

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- Teaching the method
  - Background helps about brain, negativity bias
  - Emphasizing facts and mild experiences
  - Surfacing obstructions
- Doing TIG with client(s) during a session
  - To reinforce a key resource state
  - To link rewards to desired thoughts or actions
- Encouraging TIG between sessions
  - Naming occasions
  - Identifying key positive facts and experiences

# Doing TIG with a Couple

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- Basic steps (often informal):
  - Attention to a good fact
  - Evoking and sustaining a good experience
  - Managing obstructions
  - Awareness of the impact on one's partner
  - Debriefing, often from both partners
  
- Pitfalls to avoid:
  - Seeming to side with one person
  - Unwittingly helping a person overlook real issues
  - Letting the other partner pile on

# Why It's Good to Take in the Good

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- Rights an unfair imbalance, given the negativity bias
- Increases resources, such as positive emotions and the capacity to manage stress and negative experiences
- Can help bring in missing “supplies” (e.g., love, strength, worth)
- Can lift mild to moderate depressed mood (though counterindicated for severe depression)
- Can help heal painful, even traumatic experiences
- Implicitly entails both a sense of agency and a stand that one's own welfare matters

# Benefits of Positive Emotions

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- Many benefits of positive emotions are a proxy for many of the benefits of TIG.
- Emotions organize the brain as a whole, so positive ones have far-reaching results, including:
  - Promote exploratory, “approach” behaviors
  - Lift mood; increase optimism, resilience
  - Counteract trauma
  - Reduce cortisol distinct from the benefits of simply having less negative affect
  - Strengthen immune and protect cardiovascular systems
  - Overall: “broaden and build”
  - Create positive cycles

# In Couples, Benefits of TIG

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- “Installs” key resources that support interactions (e.g., self-soothing, recognition of the other person’s good intentions)
- Dampens vicious cycles
- Helps partner feel seen, credited for sincere efforts
- Increases the sense of the good that is present
- Reduces clinginess, pursuing, reproach that partner withdraws from

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*The good life, as I conceive it, is a happy life.  
I do not mean that if you are good you will be happy;  
I mean that if you are happy you will be good.*

Bertrand Russell

# “Anthem”

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*Ring the bells that still can ring  
Forget your perfect offering  
There is a crack in everything  
That's how the light gets in  
That's how the light gets in*

Leonard Cohen

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*Keep a green bough in your heart,  
and a singing bird will come.*

Lao Tsu

# Great Books

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

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# 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.
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- 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. 52

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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.
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# Key Papers - 4

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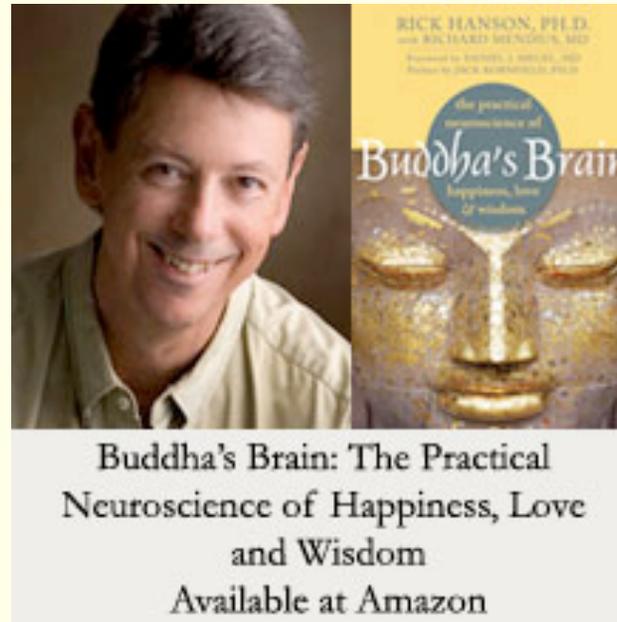
## *Where to Find Rick Hanson Online*

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

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