
Mindfully Taking in the Good

Mindfulness in Medicine, Psychotherapy, and Society

Vienna June 30, 2012

Rick Hanson, Ph.D.

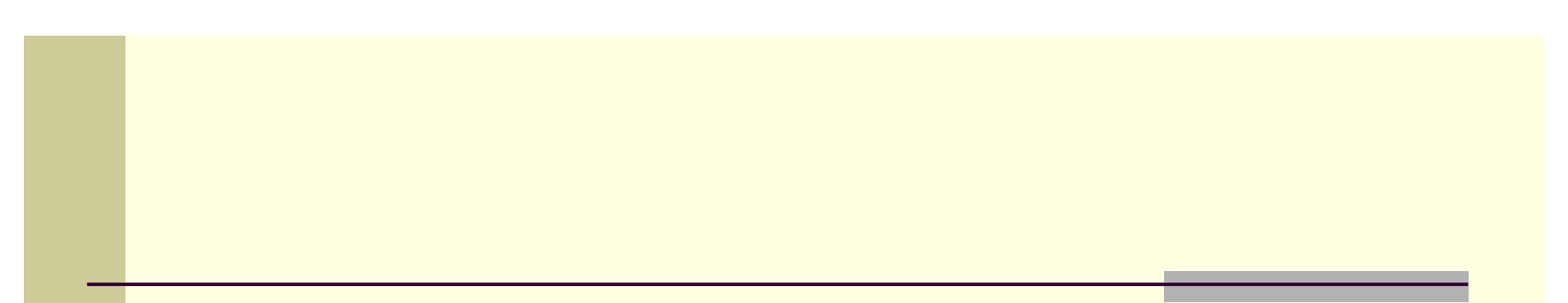
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Topics

- **Using your mind to change your brain**
- **The Responsive mode**
- **The Reactive Mode**
- **The negativity bias**
- **Inner resources**
- **Taking in the good**
- **Taking in and mindfulness**



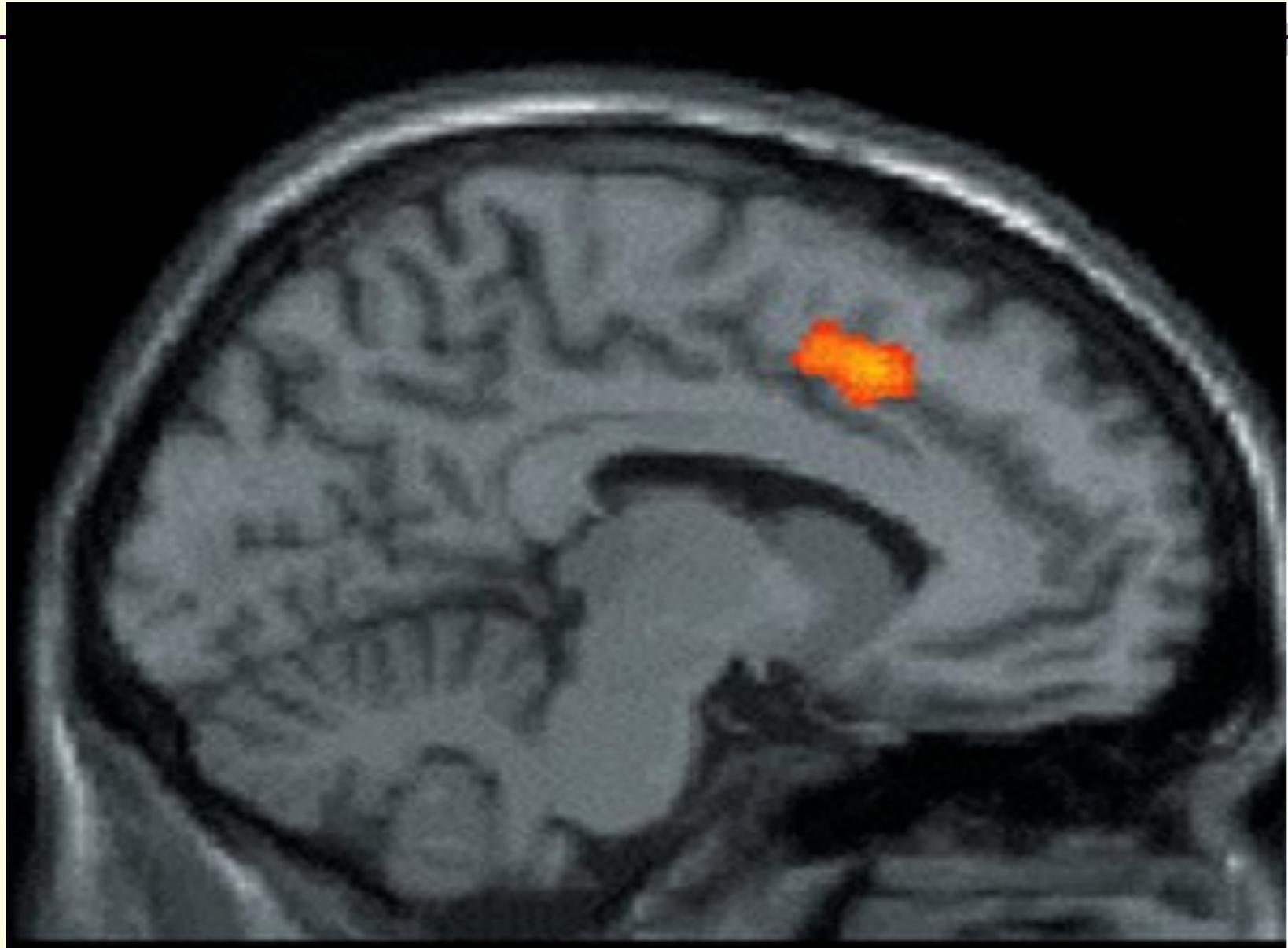
Using Your Mind to Change Your Brain



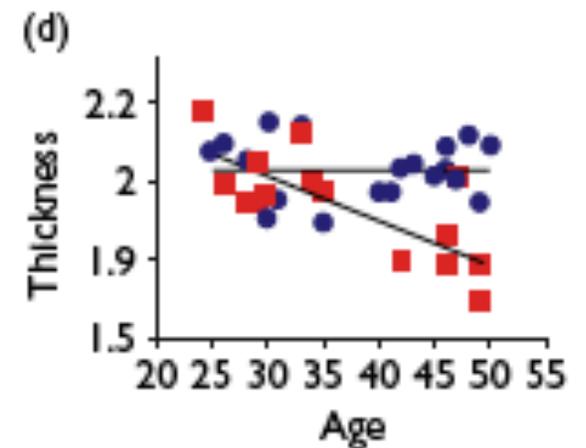
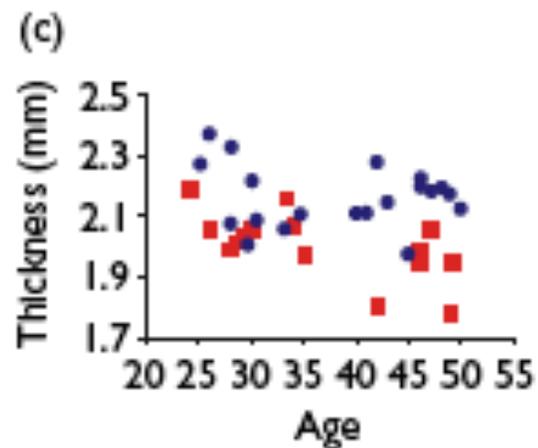
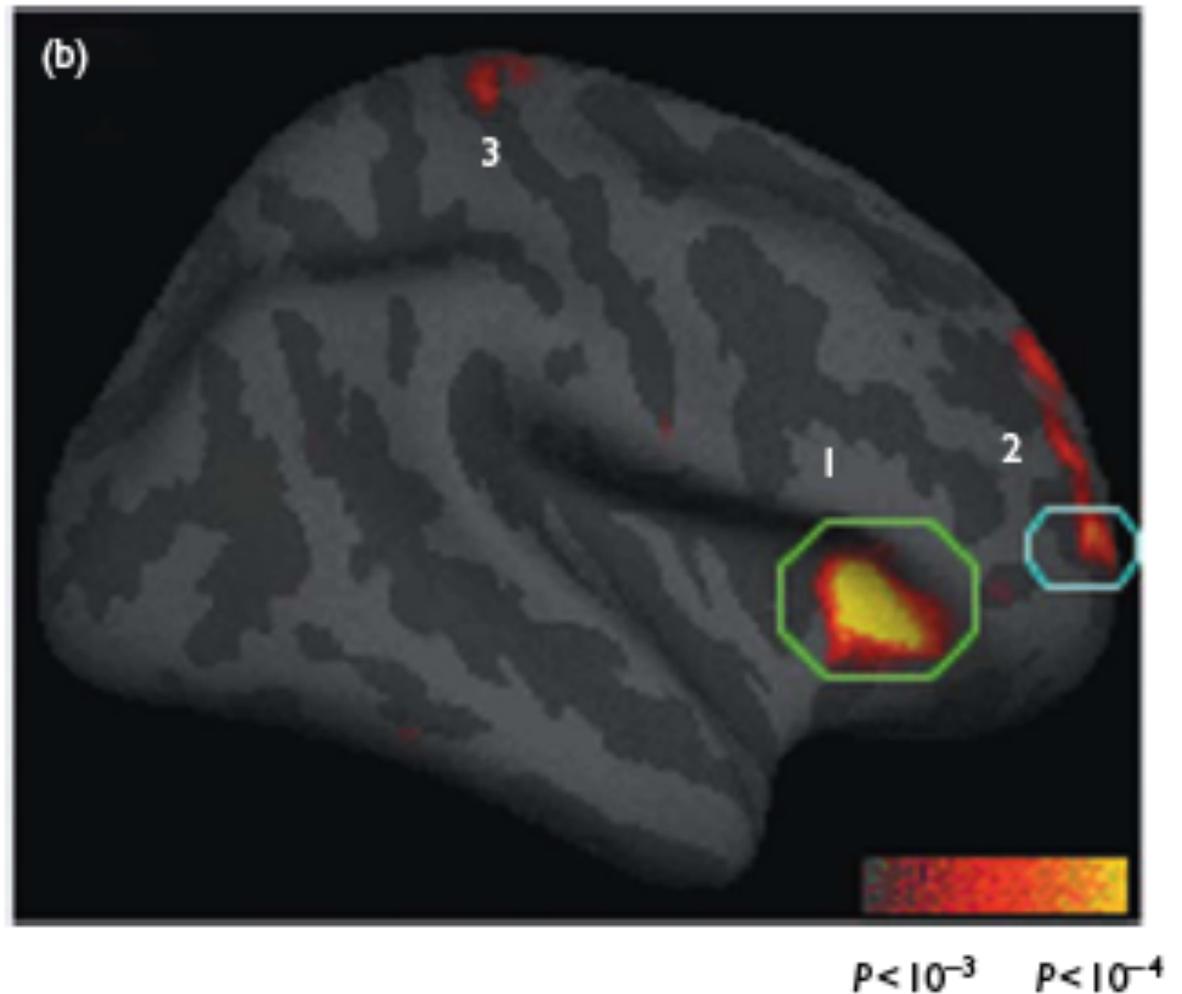
Mental States Become Neural Traits

- The nervous system represents, stores, operates upon, and communicates *information*. This is the “mind,” which is mainly outside awareness.
- How neural activity becomes conscious experience remains a mystery - but there is no doubt that mental and neural activity co-arise.
- As the mind changes, the brain changes - both temporarily and in lasting ways.

Tibetan Monk, Boundless Compassion



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

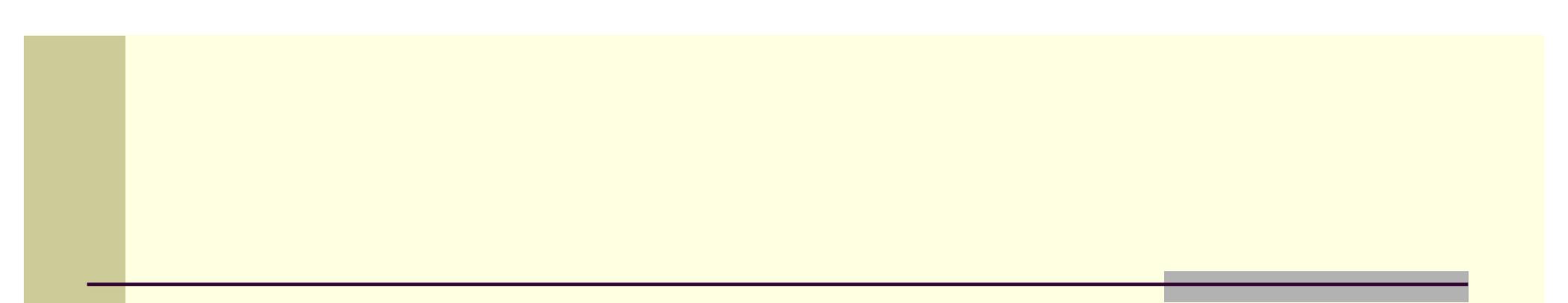


The Power of Attention

- Attention is like a spotlight, lighting what it rests upon.
- Because neuroplasticity is heightened for what's in the field of focused awareness, attention is also like a vacuum cleaner, pulling its contents into the brain.
- Directing attention skillfully is therefore a fundamental way to shape the brain - and one's life over time.
- One of the many benefits of mindfulness training is the development of skillful attention.

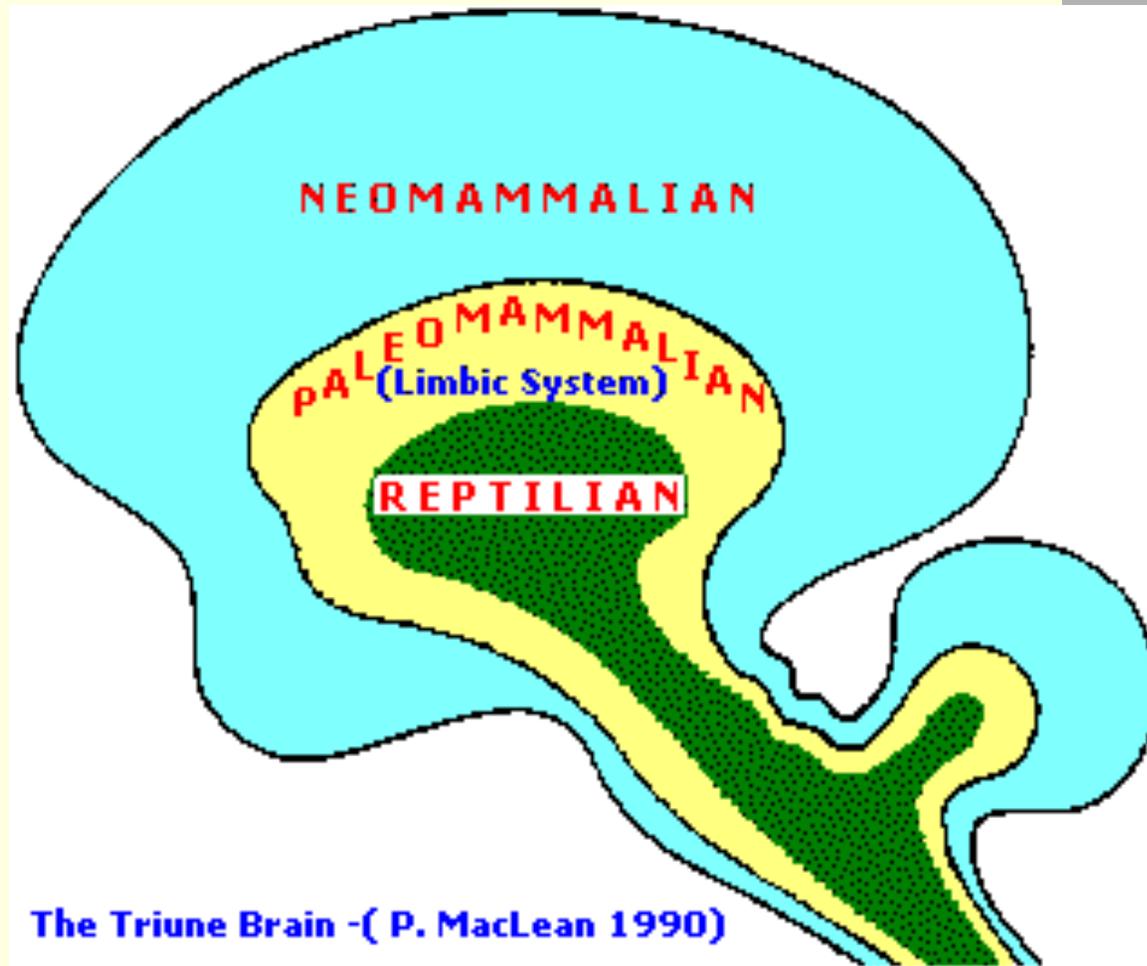
*The education of attention
would be the education par excellence.*

William James



The Responsive Mode

Evolutionary History



The Triune Brain

Three Motivational Systems

- **Avoid Harms:**

- Primary need, tends to trump all others
- Functional in first animals

- **Approach Rewards:**

- Functional in first animals
- Elaborated in mammals via sympathetic arousal, limbic/emotional valence, sustained pursuit, etc.

- **Attach to Others:**

- Functional in mammals and birds
- Very elaborated in humans via pair bonding, language, empathy, cooperative planning, altruism, etc.

The Homeostatic Home Base

When not disturbed by threat, loss, or rejection:

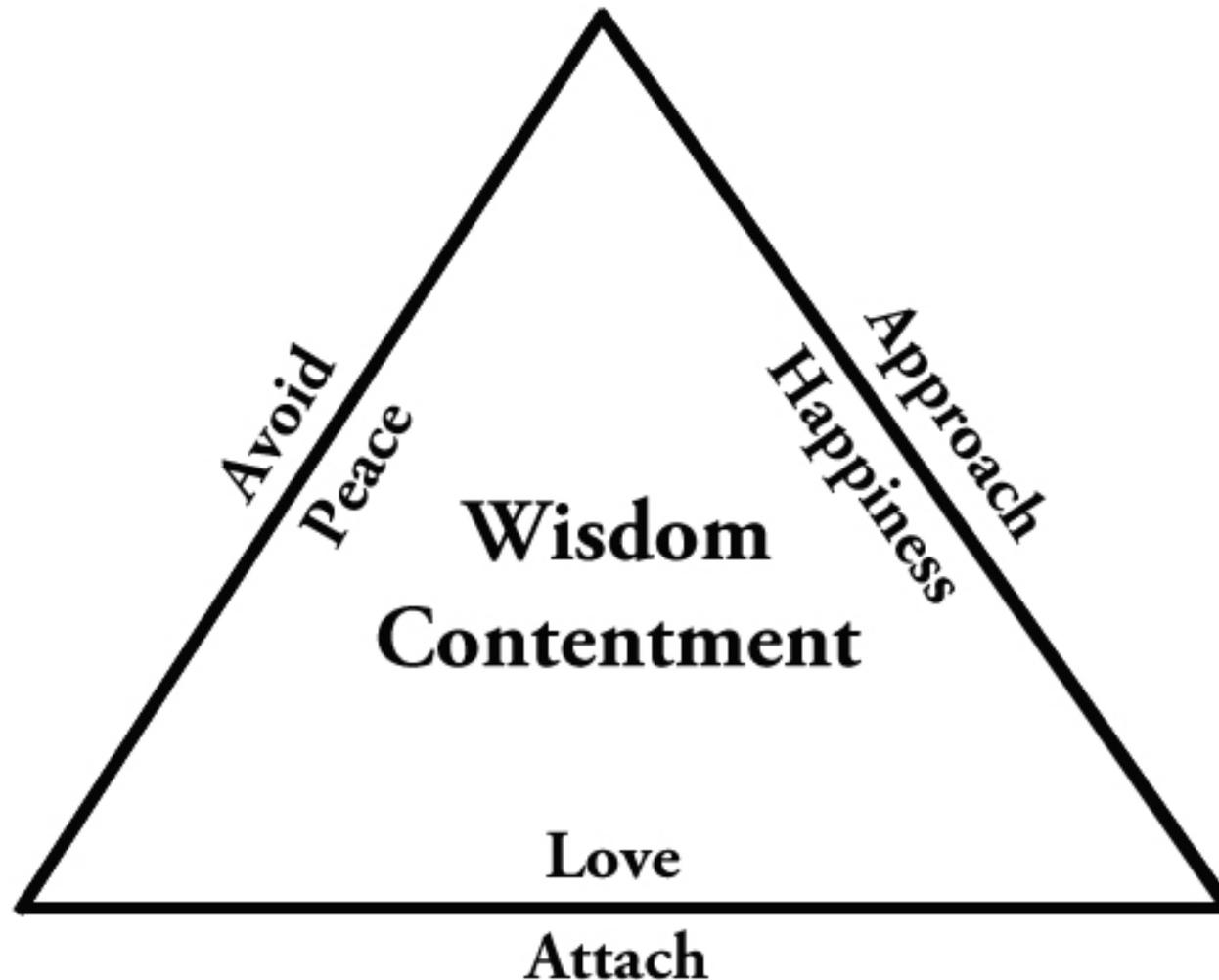
The body defaults to refueling, repairing, and a sustainable equilibrium.

The mind defaults to a basic sense of feeling:

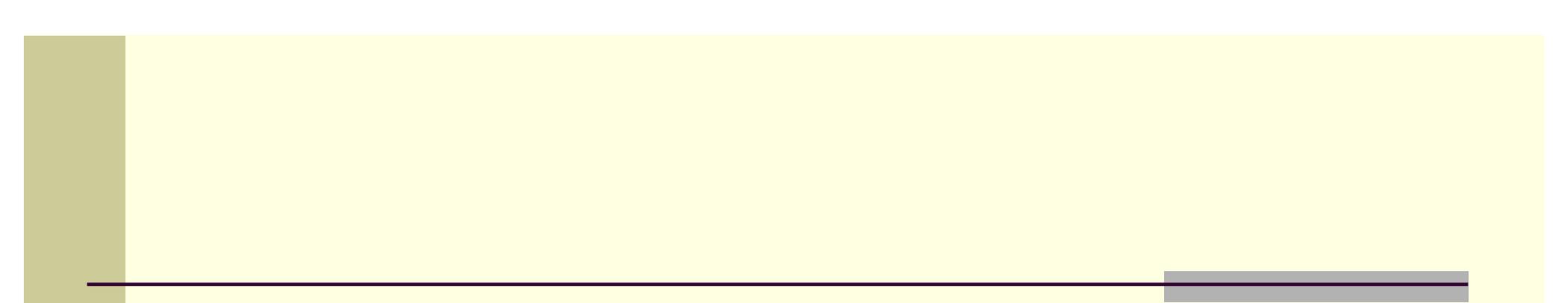
- **Peaceful** (the Avoiding system)
- **Happy** (the Approaching system)
- **Loved** (the Attaching system)

This is the brain in its *Responsive* mode.

The Responsive Mode







The Reactive Mode

Disturbed for Survival

When disturbed by threat, loss, or rejection:

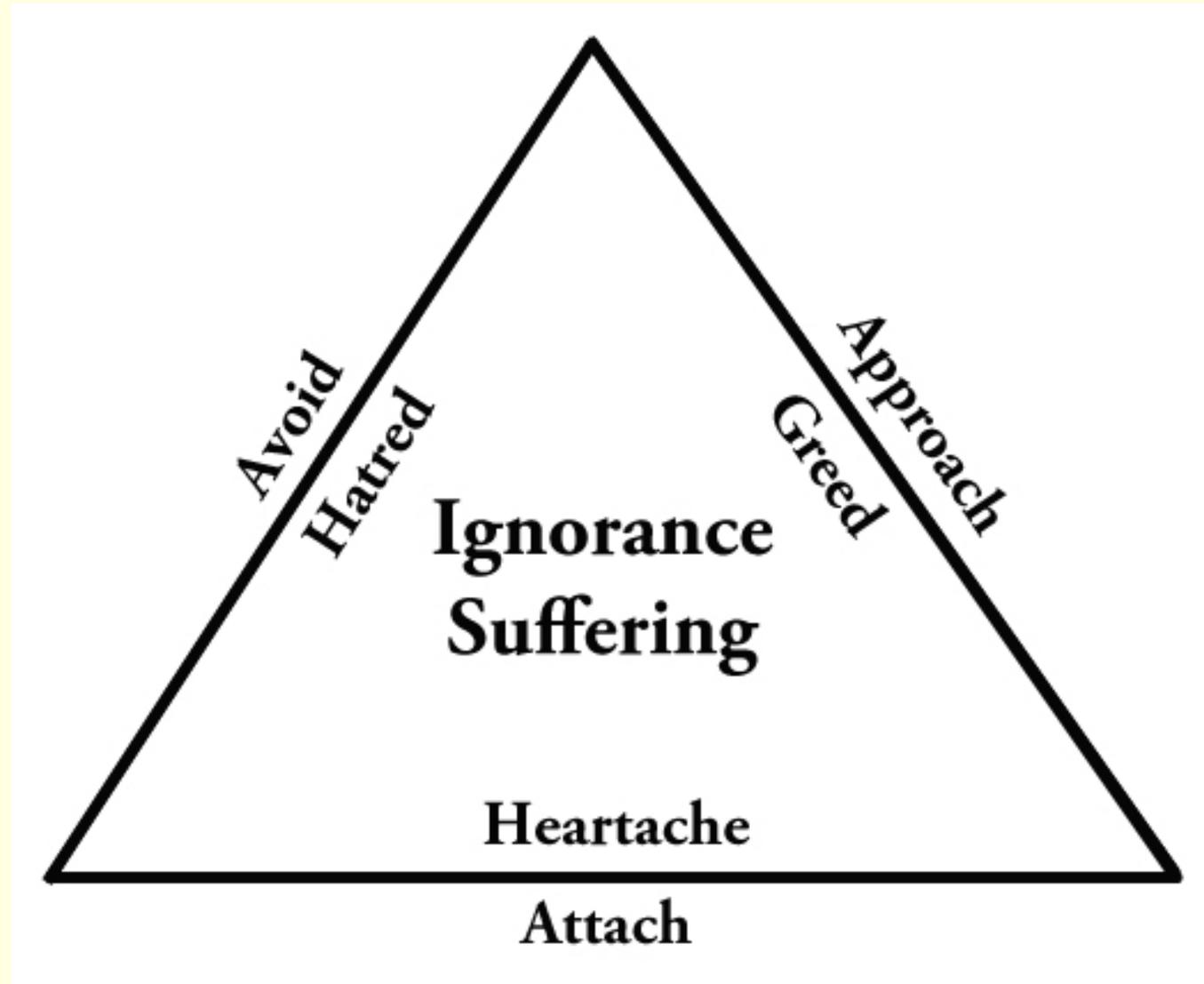
The body is stressed; resources are expended for immediate needs; long-term building is deferred; not a sustainable equilibrium.

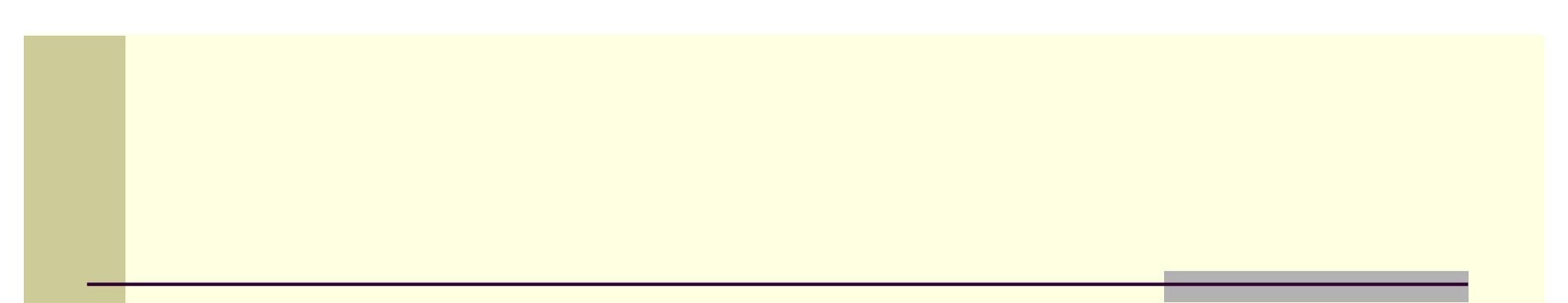
The mind tips into a basic sense of:

- **Hatred** (the Avoiding system)
- **Greed** (the Approaching system)
- **Heartache** (the Attaching system)

This is the brain in its ***Reactive*** mode.

The Reactive Mode





The Negativity Bias

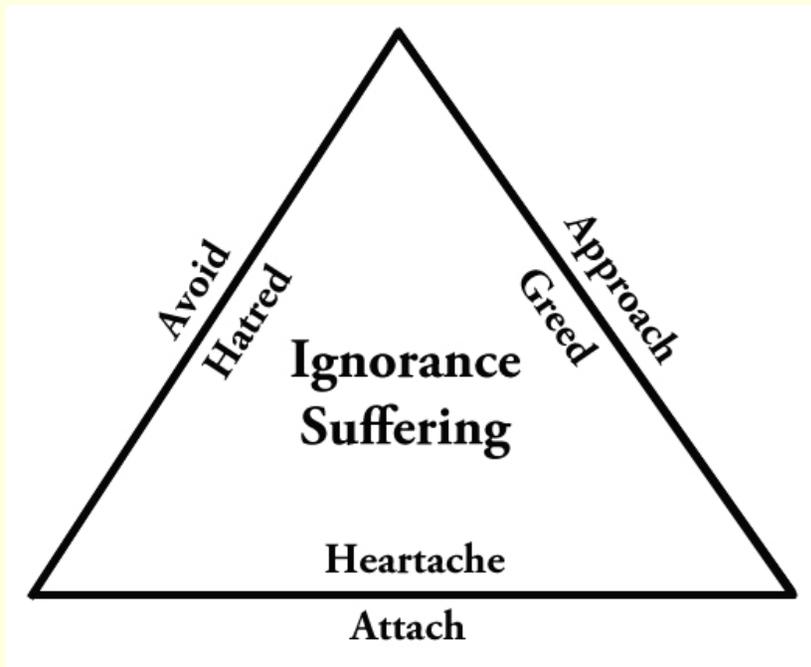
Evolution of the Negativity Bias

- **Harms** (“sticks”) - Predators, natural hazards, social aggression, pain (physical and psychological)
- **Rewards** (“carrots”) - Food, sex, shelter, social support, pleasure (physical and psychological)
- Avoiding “sticks” usually affects passing on genes more than approaching “carrots.”
 - Urgency - Usually, sticks must be avoided immediately while carrots allow a longer approach.
 - Impact - Often, the presence of a stick ends life while the absence of a carrot does not; if you fail to get a carrot today, you’ll likely have another chance tomorrow, but if you fail to avoid a stick today - whap! - no more carrots forever.

Negativity Bias: Some Consequences

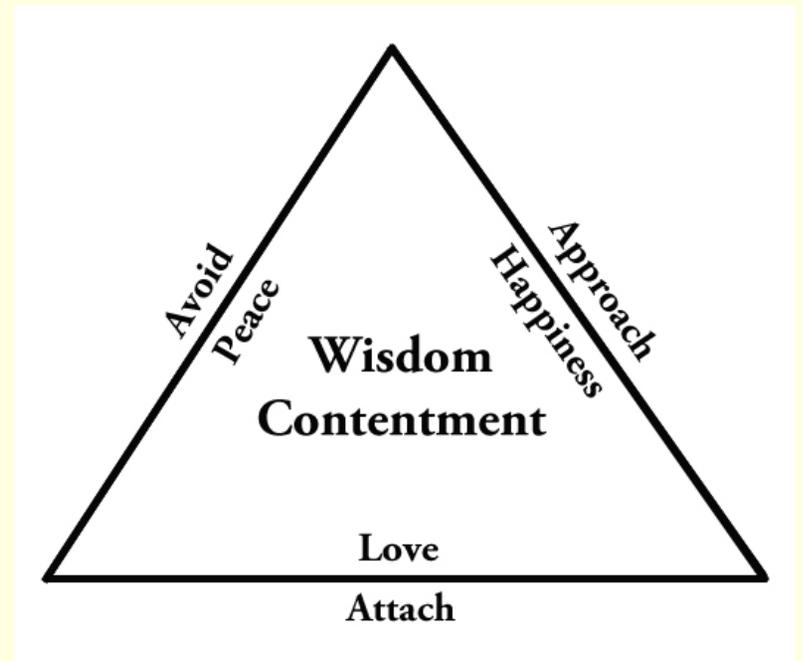
- Negative stimuli get more attention and processing.
- Easy to create learned helplessness, hard to undo
- Negative interactions: more powerful than positive
- Negative experiences are internalized more efficiently into implicit memory than positive ones.
 - Like Velcro for the negative but Teflon for the positive
 - In life, therapy, meditation, and trainings, activated positive mental states routinely wash through the brain like water through a sieve without getting installed.

Choices . . .



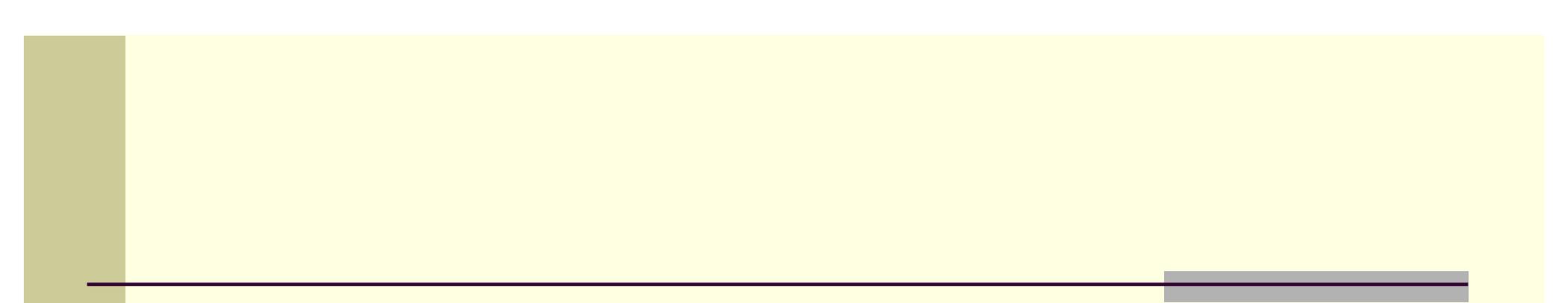
Reactive Mode

Or?



Responsive Mode

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



Inner Resources

Causes and Effects

Mental and physical phenomena arise, persist, and pass away due to causes.

The brain is shaped by the mental/neural states that are activated, installed, and reactivated within it.

Inner “poisons” (e.g., hatred, greed, heartache, delusion) cause suffering, harm, and negative cycles.

Inner resources (e.g., peace, happiness, love, wisdom) cause contentment, welfare, and positive cycles.

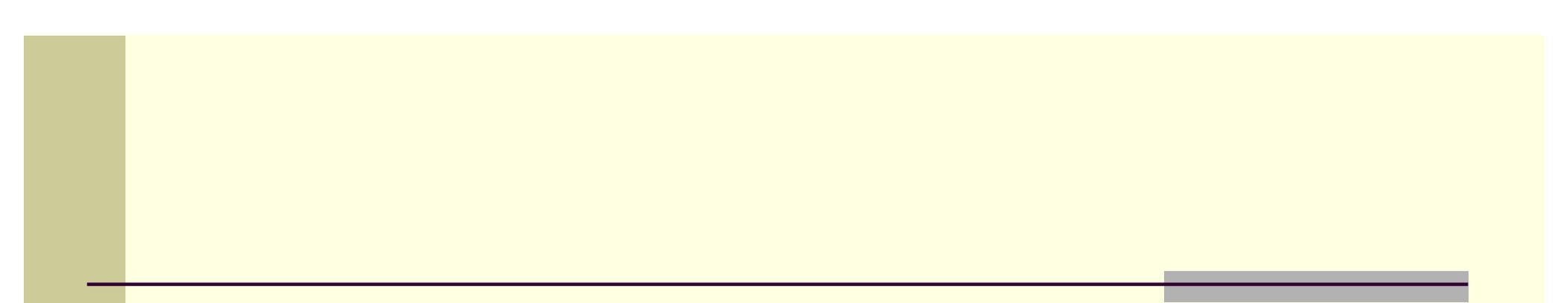
Inner Resources Include

- **Virtues** (e.g., patience, energy, generosity, restraint)
- **Executive functions** (e.g., meta-cognition)
- **Attitudes** (e.g., optimism, openness, confidence)
- **Capabilities** (e.g., emotional intelligence, resilience)
- **Positive emotions** (e.g., gratitude, self-compassion)
- **Approach orientation** (e.g., curiosity, exploration)

Cultivating Inner Resources

- Inner resources develop via modeling, conceptualization, pleasant and painful experiences, and practice.
- Pleasant experiences are a particularly powerful factor, e.g.:
 - Nurture child development
 - Encourage exploration and skill development
 - Initiate and sustain the Responsive mode
 - Help us endure the unpleasant and convert it to resources
 - Motivate us to continue learning
 - One can value pleasant experiences without craving them.
- The final common pathway of all these processes is registration of the inner resource in implicit memory. This is *installation*.

**Given the negativity bias of the brain,
and its inefficiencies at transferring pleasant
experiences into implicit memory,
how can we strengthen the installation
of inner resources?**



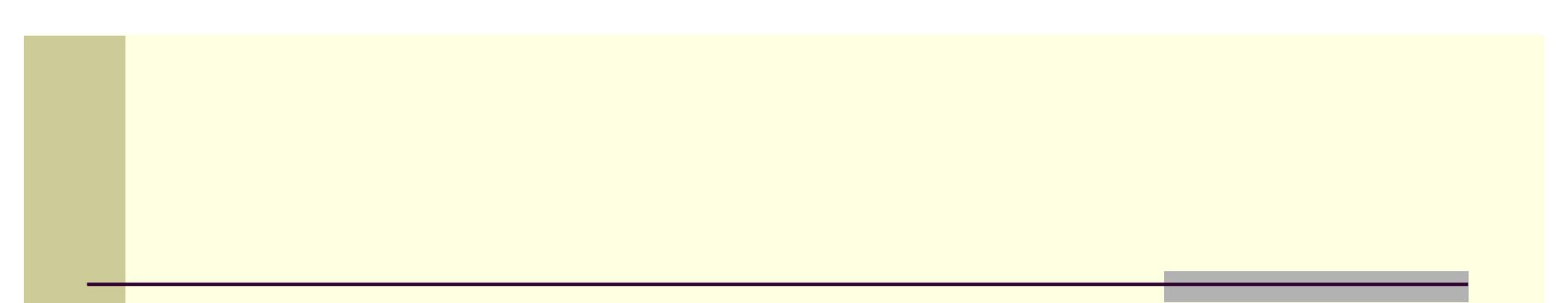
Taking in the Good

How to Take in the Good (TG)

1. Have a good experience.
 - You are already having one.
 - You deliberately recognize a good fact and let it become a good experience.
2. Extend the good experience in:
 - Time - for 10-20-30+ seconds
 - Space - in your body and feelings
 - Intensity - help it become stronger
3. Absorb the good experience by intending and sensing that is becoming a part of you, woven into the fabric of your brain and being.

*The root of compassion is
compassion for oneself.*

Pema Chodron



Taking in and Mindfulness

Right Mindfulness and Right Effort

- The great bird of practice has two wings: *being with* and *working with* the mind.
 - *Working with* reduces negative and increases positive.
 - In sum: Let be, let go, let in.
- *Being with* is fundamental, but it's incomplete:
 - As a state, it is not peace, happiness, love, or wisdom.
 - As a factor, it needs virtue, wisdom, compassion, etc.
 - *Being with* and *working with* are synergistic; they can co-arise without interfering with each other.
- And often we need to *work with* the mind to build up inner resources for *being with* it - for mindfulness.

Inner Resources for Mindfulness

- Mindfulness arises and persists due to factors *installed* in implicit memory. It is the result of deliberate efforts; these are not in principle at odds with it.
- This installation could be enhanced by taking in experiences of mindfulness factors such as:
 - Intention
 - Relaxation, reducing vigilance
 - Self-compassion; self-acceptance; distress tolerance
 - The sense of stable mindfulness itself
- TG receptively *absorbs* mental states, not changing them.
- TG of mindfulness factors and benefits (e.g., equanimity) could also occur outside of practices of open awareness. ³⁴

Cultivation Undoes Craving

- All life has goals. The brain continually seeks to avoid harms, approach rewards, and attach to others - even that of a Buddha.
- It is wholesome to wish for the happiness, welfare, and awakening of all beings - including the one with your nametag.
- We rest the mind upon positive states so that the brain may gradually take their shape. This disentangles us from craving as we increasingly rest in a peace, happiness, and love that is independent of external conditions.
- With time, even the practice of cultivation falls away - like a raft that is no longer needed once we reach the farther shore.



Know the mind.

Shape the mind.

Free the mind.

Great Books

See 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.
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- LeDoux, J. 2003. *Synaptic Self*. Penguin.
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- Siegel, D. 2007. *The Mindful Brain*. Norton.
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Key Papers - 1

See 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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Key Papers - 2

- Davidson, R.J. 2004. Well-being and affective style: neural substrates and biobehavioural correlates. *Philosophical Transactions of the Royal Society*. 359:1395-1411.
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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. 39

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- 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.
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Key Papers - 4

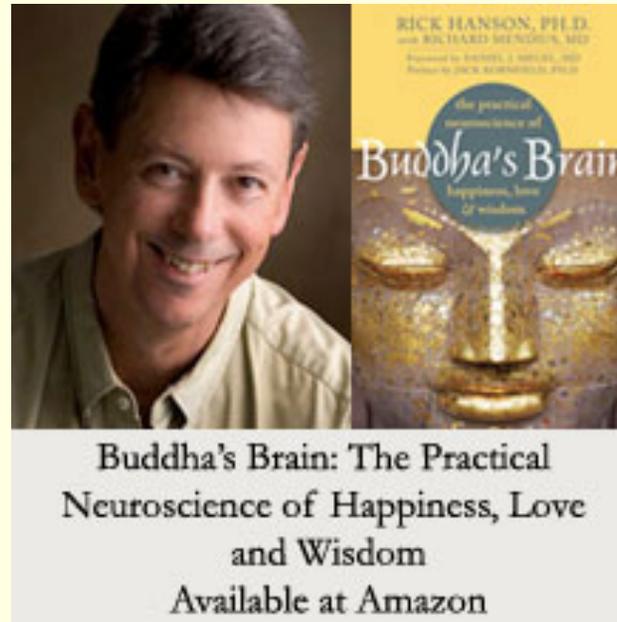
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Where to Find Rick Hanson Online



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