

The Not-Craving Brain:

From Greed, Hatred, and Heartache To Contentment, Peace, and Love

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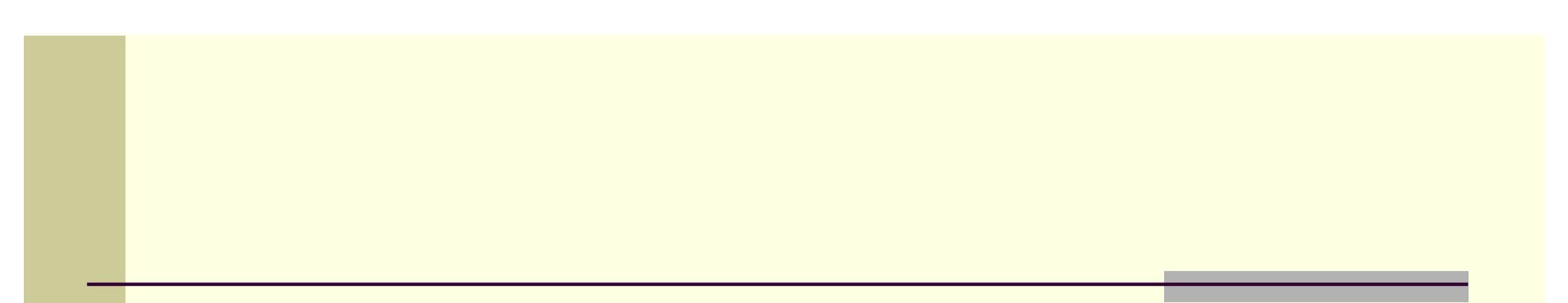
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Topics

- **Three evolving neural systems:
Avoid, Approach, Attach**
- **Two modes for each system:**
 - **Responsive (replenishing)**
 - **Reactive (expending)**
- **The negativity bias and threat reactivity**
- **Stimulating and strengthening Responsive²**

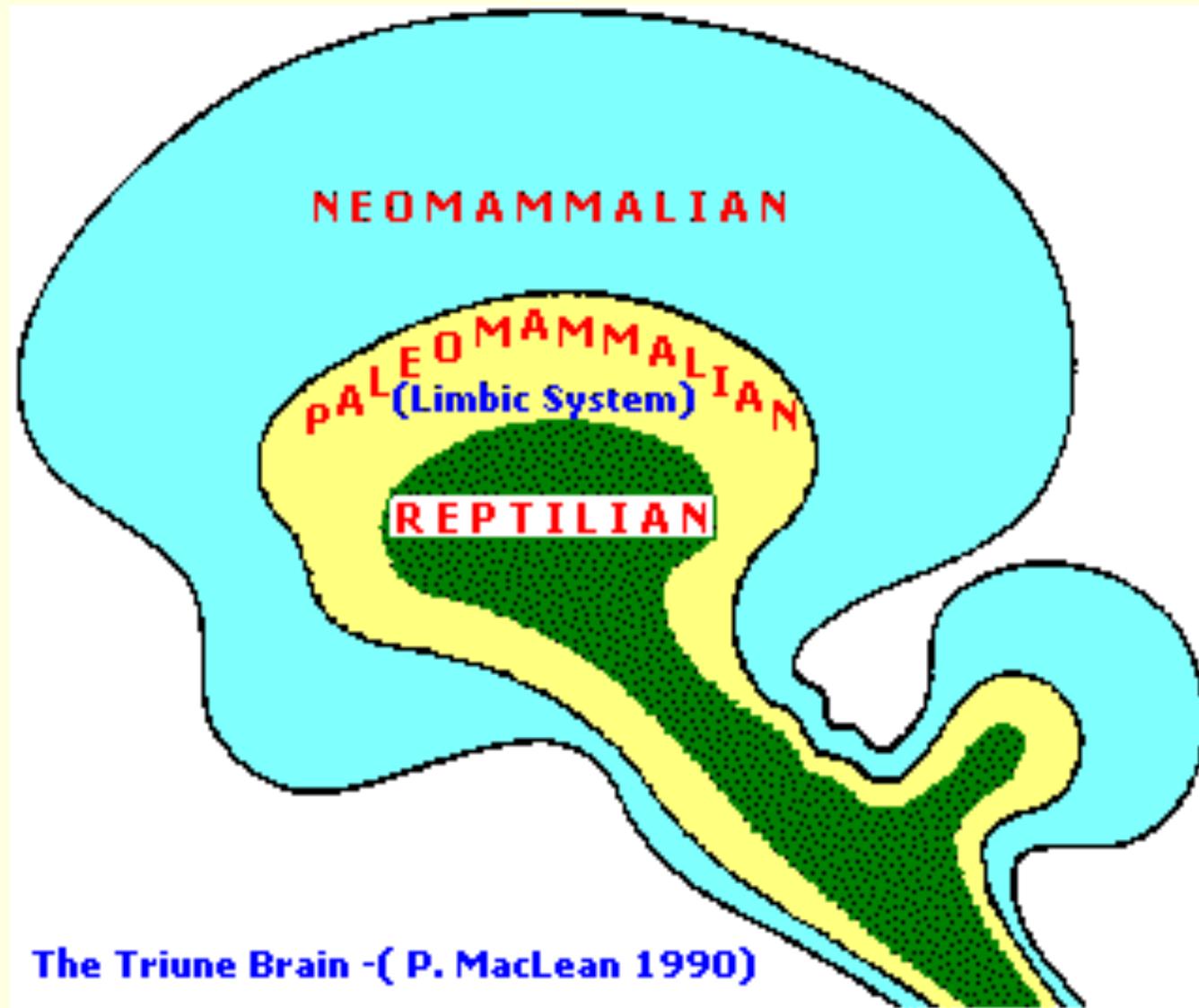


Three Evolving Neural Systems: Avoid, Approach, Attach

Evolution

- ~ 4+ billion years of earth
- 3.5 billion years of life
- 650 million years of multi-celled organisms
- 600 million years of nervous system
- ~ 80 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

The Evolving Brain



Three Stages of Brain Evolution

■ Reptilian:

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

■ Mammalian:

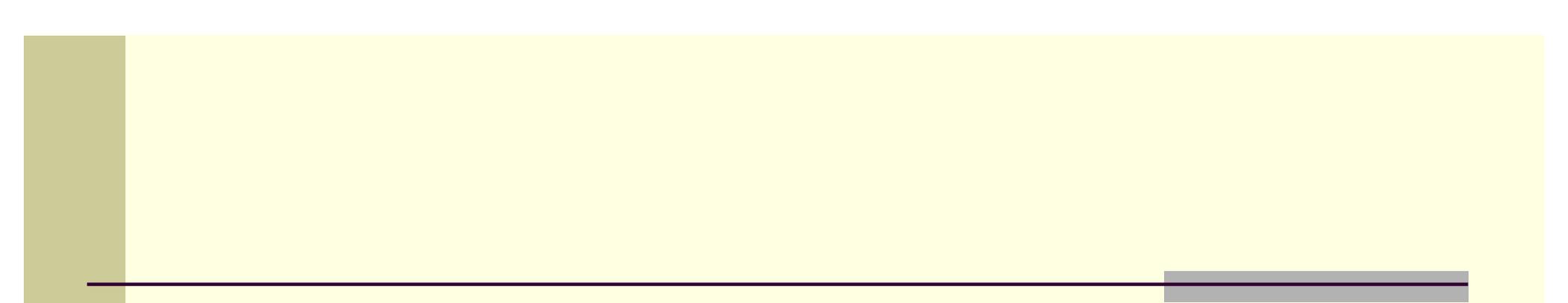
- Limbic system, cingulate, early cortex
- Memory, emotion, social behavior
- **Approach** rewards

■ Human:

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



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The Responsive Mode

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

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



Behind the Obscurations

Sam sees *“peeping among the cloud-wrack . . . a white star
twinkle for a while.*

*The beauty of it smote his heart, as he looked up out of the
forsaken land, and hope returned to him.*

*For like a shaft, clear and cold, the thought pierced him that
in the end the Shadow was only a small and passing thing:
there was light and high beauty forever beyond its reach.”*

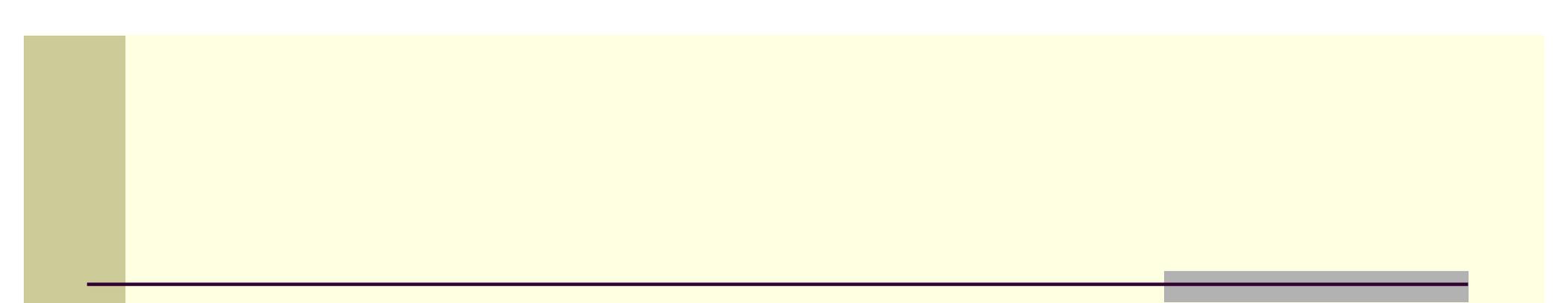
Tolkein, *The Lord of the Rings*

Key Benefits of Responsive Mode

- Fueling for Reactive mobilizations; recovery after
- Positive emotions, cognitions, and behaviors
- Positive cycles
- Promotes virtue and benevolence

*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



The Reactive Mode

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

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



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

Reactive Dysfunctions in Each System

- **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”



The Negativity Bias and Threat Reactivity

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

- “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 impact 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!²¹ - no more carrots forever.



With the negativity bias, the Avoid system hijacks the Approach and Attach systems, inhibiting them or using them for its ends.

Negativity Bias: Some Consequences

- 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.

A Major Aspect of the Negativity Bias: Threat Reactivity

- 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 thousand 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)

- 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)

- 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."

Choices . . .



Reactive Mode

Or?



Responsive Mode



Stimulating and Strengthening the Responsive Mode

Let's explore:

- **Parasympathetic activation**
- **Taking in the good**
- **Feeling cared about**
- **Feeling stronger and safer**
- **Liking, not wanting**

Parasympathetic Activation

- 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.

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.

Feeling Cared About

- 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: 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.

Feeling Stronger and Safer

- 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

Liking and Wanting

- Distinct neural systems for liking and wanting
- In the brain: feeling tone --> enjoying (liking) --> wanting --> pursuing
 - Wanting without liking is hell.
 - Liking without wanting is heaven.
- The distinction between *chandha* (wholesome wishes and aspirations) and *tanha* (craving)
- But beware: the brain usually wants (craves) and pursues (clings) to what it likes.

Practicing with Wanting

- Positive wants (e.g., practice, sobriety, love, aspirations) crowd out negative ones.
- Surround pleasant or unpleasant hedonic tones with spacious awareness - the “shock absorber” - without tipping into craving.
- Regard wants as just more mental content. Investigate them. Watch them come and go. No compulsion, no “must.”
- Be skeptical of predicted rewards - simplistic and inflated, from primitive subcortical regions. Explore healthy disenchantment.
- Pick a key want and just don't do it.

“Taking the Fruit as the Path”

Gladness

Love

Peace

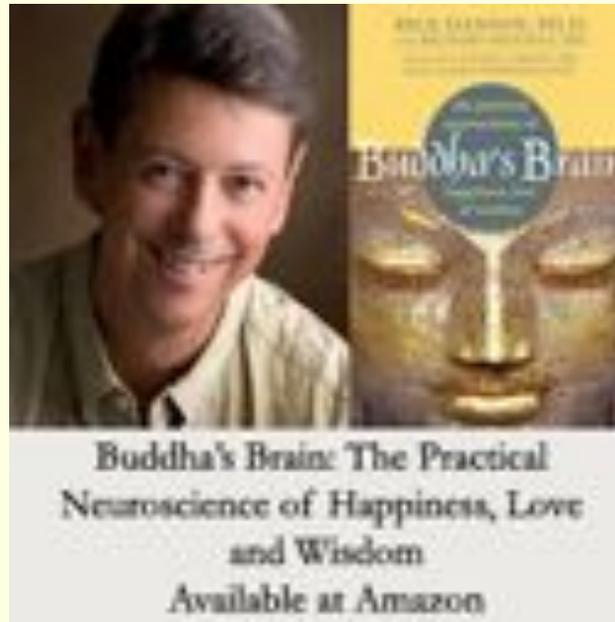
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