

Taking in the Good

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Key Topics Today

- The challenge of the brain's negativity bias
 - Implicit memory and neuroplasticity
 - Consequences of the negativity bias
- How to take in the good (TIG)
 - Three primary steps of TIG
 - Benefits of TIG
- Using TIG to heal emotional pain
 - The fourth step of TIG
 - TIG and treatment compliance and relapse prevention
- TIG and specific clinical applications

How to Take in the Good

1. Help positive events become positive experiences.
2. Extend the experience in *time* and *space*:
 - Savor it.
 - Encourage it to expand in your body.
3. Sense that the positive experience is soaking into your brain and body - registering deeply in emotional memory.

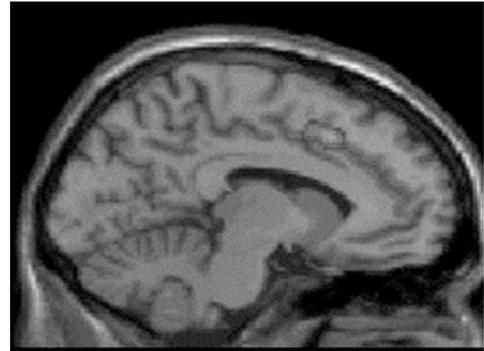
The Importance of Inner Resources

- Examples:
 - Freud's "positive introjects"
 - Internalization of "corrective emotional experiences" during psychotherapy
 - "Learned optimism"
- Benefits
 - Increase positive emotions: many physical and mental health benefits
 - Improve self-soothing
 - Improve outlook on world, self, and future
 - Increase resilience, determination

The Nature of Inner Resources

- Physical basis:
 - Basic health
 - Biochemical substances and set-points
 - Neural circuitry
- Translates into psychological resources, in ways that are still largely mysterious
- Apart from hypothetical transcendental factors, mental activity - the flow of information - maps to neural activity, the flow of matter and energy. Your mind *is* what your brain *does*.

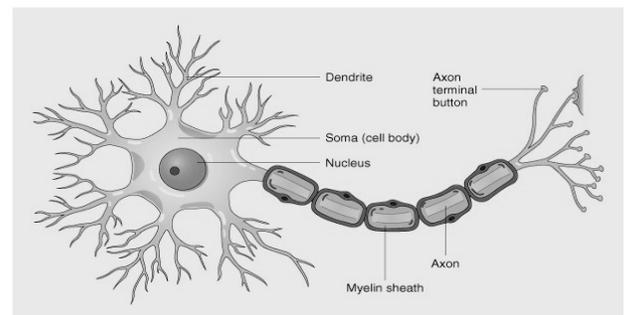
A Meditator



Mechanisms of Neuroplasticity

- What flows through your mind sculpts your brain. Immaterial experience leaves material traces behind:
 - Increased blood/nutrient flow to active regions
 - Epigenetics: experience affects gene expression
 - “Neurons that fire together wire together.”
 - Increasing excitability of active neurons
 - Strengthening existing synapses
 - Building new synapses; thickening cortex; from womb to deathbed
 - Neuronal “pruning” - “use it or lose it”
- Your experience *matters*. Both for how it feels in the moment and for the lasting residues it leaves behind, woven into the fabric of your being.

A Neuron



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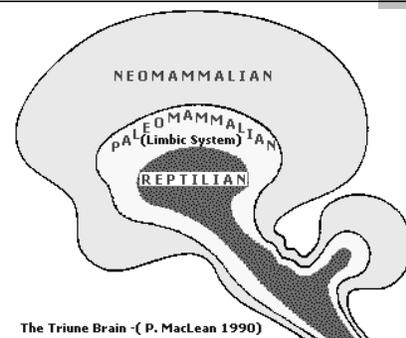
Implicit Memory

- The flow of information through the nervous system shapes it.
- That shaping is learning, or memory.
- Memory is thus the basis of most inner resources. Two kinds:
 - Explicit - recollections of specific events or information
 - Implicit - emotional tone or associations, attitudes, expectations, skills
- Resources are embedded mainly in implicit memory.
- So what matters most is not the explicit recollection of positive *events* but the implicit emotional residue of positive *experiences*.

Evolution of Approaching and Avoiding

- 3.5+ billion years of life
- Crucial functions: approach what promotes survival and avoid what threatens it
 - Motile protozoa will move toward a sucrose gradient and away from a toxic one.
 - Animals approach food, mates, and shelter; they flee from or resist predators and natural hazards.
 - Social animals approach caregivers, allies, and higher social status; they fight rivals, avoid or appease “alphas,” and resist lower status.
- Signals and rewards:
 - Pleasure and pain; “hedonic tone”
 - Emotion

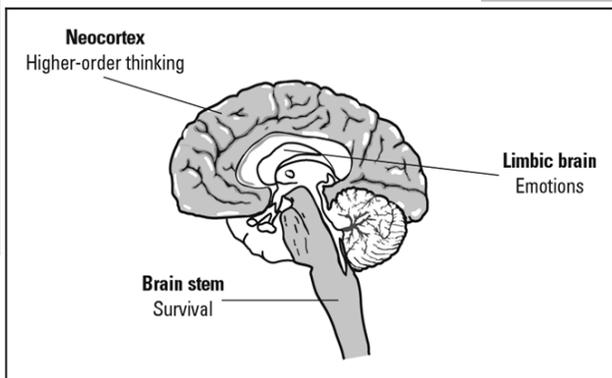
Evolutionary History



The Triune Brain - (P. MacLean 1990)

The Triune Brain

Circuits of Reactive Responses

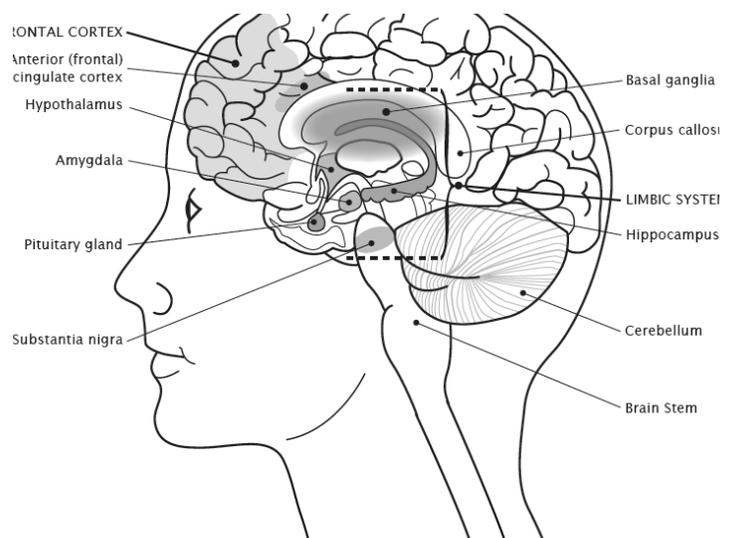


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The Negativity Bias

- In evolution, threats had more impact on survival than opportunities. So sticks are more salient than carrots:
 - Amygdala is primed to label experiences negatively
 - Amygdala-hippocampus system flags negative experiences prominently in memory
 - The brain is like velcro for negative experiences and teflon for positive ones.
- Consequently, negative trumps positive:
 - Easy to create learned helplessness, hard to undo
 - People will do more to avoid a loss than get a gain.
 - Takes five positive interactions to undo a negative one
- Negative experiences create vicious cycles.



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One Effect of Chronic Negative Experiences

- Negative experiences are stressful; bodily cascade:
 - Sympathetic nervous system
 - Hypothalamic-pituitary-adrenal axis
 - Surges of cortisol and other stress hormones
- Hippocampus forms contextual memories and inhibits the amygdala
- Cortisol:
 - Stimulates and sensitizes the amygdala ("alarm bell")
 - Inhibits and can shrink the hippocampus
- Consequently, chronic negative experiences:
 - Sensitize the alarm bell and take the brakes off it
 - Impair memory capacities

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

Marvin L. Minsky

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Kinds of “Good” to Take in

- Things are alright; nothing is wrong; there is no threat
- Relief that a feared event did not occur
- Small pleasures of ordinary life
- Accomplishments - especially small, everyday ones
- Feeling strong; sense of efficacy: hammer, not nail
- Being included, liked, wanted, loved by others
- Being respected, valued, approved of by others
- Recognizing positive character traits
- Lessons of life (and therapy)
- Existential or spiritual realizations and experiences

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Being for Yourself

- 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.

“Anthem”

*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

Key Points about Memory

- Schematic storage of selected features
- Recollections are **re-built**, not re-called.
- The emergent brain/mind pattern of the memory also associates to whatever else is in awareness, especially if it is emotionally salient.
- When the memory goes back into storage, it takes with it the other emotionally salient associations.
- Therefore, you can gradually imbue memories with positive emotional associations.
- Explicit, episodic memory will not change, but implicit, emotional memory can.

The Fourth Step of TIG

- Make the current positive experience intense and in the foreground of awareness at the same time that the old negative experience is dim and in the background of awareness; sense, imagine that the positive experience is soothing and gradually replacing old pain
 - Requires capacity for divided attention
 - Metaphors of golden syrup as a balm to abraded wounds, water soaking into a sponge, jewels going into a treasure chest in the heart
- Use in two ways:
 - When positive experiences occur
 - When negative experiences occur

Psychological Antidotes

- Look for positive experiences that are the specific antidote to negative material
- Examples:
 - Being safe, secure antidoting feeling threatened, attacked, insecure
 - Being strong, effective antidoting feeling weak, helpless, pessimistic
 - Being happy, content, grateful antidoting feeling sad, depressive, unsatisfied, negative
 - Being wanted, included, loved antidoting feeling devalued, rejected, abandoned, unloved

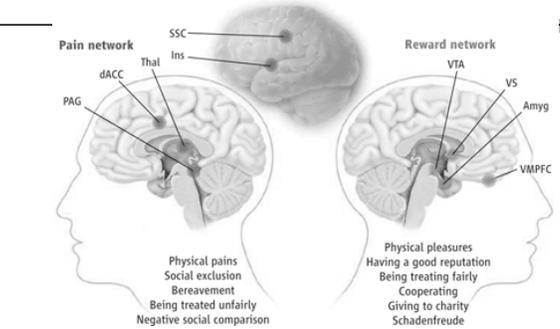
*The good life, as I conceive it, is a happy life.
I do not mean that if you are good you will be happy;
I mean that if you are happy you will be good.*

Bertrand Russell

The Tip of the Root

- For the fourth step of TIG, try to help clients 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 stay present with young material without getting flooded

Pain and Reward Circuitry



Pain network: Dorsal anterior cingulate cortex (dACC), insula (Ins), somatosensory cortex (SSC), thalamus (Thal), and periaqueductal gray (PAG).

Reward network: Ventral tegmental area (VTA), ventral striatum (VS), ventromedial prefrontal cortex (VMPFC), and amygdala (Amyg).

K. Sutliff, in Lieberman & Eisenberger, 2009, *Science*, 323:890-891

Promoting Client Motivation

- During therapy, but mainly between sessions
- Notice:
 - When learning from therapy works well
 - New insights
 - When things happen consistent with therapist's realistic view of you, the world, the future
 - Good qualities in yourself emphasized by therapist
- Then practice three, sometimes four, steps of TIG
- Can be formalized in daily reflections, journaling
- Take small risks, notice the (usually) good results, and then take those in.

Why It's Good to Take in the Good

- Given the negativity bias of evolution and the brain, when you actively look for and take in positive experiences you are just righting an unfair imbalance.
- You are giving yourself today the caring and encouragement you should have received as a child but perhaps didn't get in full measure.
- TIG increases positive emotions; emotions organize the brain as a whole, so positive ones have far-reaching benefits, including:
 - Stronger immune system; less stress-reactive cardio
 - Lift mood; increase optimism, resilience
 - Counteract trauma
 - Promote exploratory, “approach” behaviors
 - Create positive cycles

TIG and Trauma

- 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 trauma itself, especially its peripheral features and themes.
- If indicated: ultimately, with great care, use the fourth step to get at the heart of the trauma.
- “First of all, do no harm.”

TIG and Children

- All kids benefit from TIG.
- Special benefits for mistreated, anxious, spirited, LD children.
- Adaptations:
 - Brief
 - Concrete
 - Natural occasions (e.g., bedtimes)

Penetrative insight

joined with calm abiding

utterly eradicates

afflicted states.

Shantideva

Great Books

See www.RickHanson.net for other great books.

- Austin, J. 2009. *Selfless Insight: Zen and the Meditative Transformations of Consciousness*. MIT Press.
- Begley, S. 2007. *Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves*. Ballantine.
- Hanson, R. 2009. *Buddha’s Brain: The Practical Neuroscience of Happiness, Love, and Wisdom*. New Harbinger.
- Johnson, S. 2005. *Mind Wide Open: Your Brain and the Neuroscience of Everyday Life*. Scribner.
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- Sapolsky, R. 2004. *Why Zebras Don’t Get Ulcers*. Holt.
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- Thompson, E. 2007. *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*. Belknap Press.

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See www.RickHanson.net for other scientific papers.

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- Lieberman, M.D. & Eisenberger, N.I. 2009. Pains and pleasures of social life. *Science*. 323:890-891.
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- 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.

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