Taking in the Good

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Topics

- Self-directed neuroplasticity
- Self-compassion
- The evolving brain
- The negativity bias
- Taking in the good
- Healing old pain
- De-fueling the fires of suffering
Self-Directed Neuroplasticity
[People] ought to know that from nothing else but the brain come joys, delights, laughter and sports, and sorrows, griefs, despondency, and lamentations.

Hippocrates
A Neuron
Your Brain: The Technical Specs

- **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
Three Facts about Brain and Mind

- As the brain changes, the mind changes.
  - Mental activity depends upon neural activity.

- As the mind changes, the brain changes.
  - **Transient**: brainwaves, local activation
  - **Lasting**: epigenetics, neural pruning, “neurons that fire together, wire together”
  - Experience-dependent neuroplasticity

- You can use the mind to change the brain to change the mind for the better: self-directed neuroplasticity.
We ask, “What is a thought?”

We don’t know,

yet we are thinking continually.

Venerable Tenzin Palmo
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
Ardent, Diligent, Resolute, and Mindful
Causes and Effects

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

Causes in the brain are shaped by the mental/neural states that are activated and then installed within it.

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

Inner strengths (e.g., virtue, mindfulness, wisdom, peace, contentment, love) cause happiness and benefit for oneself and others.
Why Mindfulness Matters

- Attention is like a spotlight, illuminating what it rests upon.

- Because neuroplasticity is heightened for what pay attention to, attention is also like a vacuum cleaner, sucking its contents into the brain.

- Directing attention skillfully - the essence of mindfulness - is therefore a fundamental way to shape the brain - and one’s life - over time.

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

William James
Self-Compassion
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 root of compassion is compassion for oneself.

Pema Chodron
Self-Compassion

- Compassion is the wish that a being not suffer, combined with sympathetic concern. Self-compassion simply applies that to oneself. It is not self-pity, complaining, or wallowing in pain.

- Studies show that self-compassion buffers stress and increases resilience and self-worth.

- But self-compassion is hard for many people, due to feelings of unworthiness, self-criticism, or “internalized oppression.” To encourage the neural substrates of self-compassion:
  - Get the sense of being cared about by someone else.
  - Bring to mind someone you naturally feel compassion for.
  - Sink into the experience of compassion in your body.
  - Then shift the compassion to yourself, perhaps with phrases like: “May I not suffer. May the pain of this moment pass.”
“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
The Evolving Brain
Evolutionary History

The Triune Brain - (P. MacLean 1990)
"With all due respects, I find your disparaging remarks about the 'reptilian brain' unnecessary"
Three Fundamental Motivational and Self-Regulatory Systems

- **Avoid Harms:**
  - Primary need, tends to trump all others

- **Approach Rewards:**
  - Elaborated via sub-cortex in mammals for emotional valence, sustained pursuit

- **Attach to Others:**
  - Very elaborated via cortex in humans for pair bonding, language, empathy, cooperative planning, compassion, altruism, etc.
The Homeostatic Home Base

When not disturbed by threat, loss, or rejection [no deficit of safety, satisfaction, and connection]

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

The mind defaults to a sustainable equilibrium of:

- **Peace** (the Avoiding system)
- **Contentment** (the Approaching system)
- **Love** (the Attaching system)

This is the brain in its homeostatic **Responsive**, minimal craving mode.
Neurobiological Basis of Craving

*When disturbed by threat, loss, or rejection [deficit of safety, satisfaction, or connection]:*

The **body** fires up into the stress response; outputs exceed inputs; long-term building is deferred.

The **mind** fires up into:
- **Hatred** (the Avoiding system)
- **Greed** (the Approaching system)
- **Heartache** (the Attaching system)

This is the brain in allostatic, *Reactive, craving* mode.
Adaptive and maladaptive responses to challenges


Nonlinear network of multiple regulators of the stress response

Central role of the brain in the stress response
How stress changes the brain
Reactive Dysfunctions in Each System

- **Avoid** - Anxiety disorders; PTSD; panic, terror; rage; violence

- **Approach** - Addiction; over-drinking, -eating, -gambling; compulsion; hoarding; driving for goals at great cost; spiritual materialism

- **Attach** - Borderline, narcissistic, antisocial PD; symbiosis; *folie a deux*; “looking for love in all the wrong places”
Choices . . .

Or?

Reactive Mode

Responsive Mode
The Negativity Bias
Negativity Bias

- As our ancestors evolved, not getting hit by “sticks” was more important for survival than getting “carrots.”

- Negative stimuli get more attention and processing. Loss aversion.

- Preferential encoding in implicit memory:
  - Easy to create learned helplessness, hard to undo
  - Negative interactions: more powerful than positive
  - Good at learning from bad, bad at learning from good
  - Most good experiences are wasted on the brain: lowers both the results of practice and motivation
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.
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 Poignant Truth

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?*
Taking in the Good
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.
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., mindfulness, emotional intelligence, resilience)

- **Positive emotions** (e.g., gratitude, self-compassion)

- **Approach orientation** (e.g., curiosity, exploration)
Cultivation in Context

Three ways to engage the mind:
- Be with it. Decrease negative. Increase positive.
- Let be. Let go. Let in.
- Mindfulness present in all three ways to engage mind

While “being with” is primary, it’s often isolated in Buddhist, nondual, mindfulness-based practice.

Skillful means for decreasing negative and increasing positive have developed over 2500 years. Why not use them?
Join us for **Cultivating Inner Strength - Monastic Daylong [Dana - No Fee Day]**
with Ayya Anandabodhi and Ayya Santacitta on **Sunday, July 8**
from 9:30 am - 5 pm.

(Photo by Ed Ritger)
HEAL by Taking in the Good

1. **Have** a positive experience. Notice or create it.

2. **Enrich** the experience through duration, intensity, multimodality, novelty, personal relevance

3. **Absorb** the experience by intending and sensing that it is sinking into you as you sink into it.

4. **Link** positive and negative material.

**Benefits:** Specific contents internalized. Implicit value of being active and treating yourself like you matter. Gradual sensitization of the brain to the positive.
Targets of TG

- **Bodily states** - healthy arousal; PNS; vitality
- **Emotions** - both feelings and mood
- **Views** - expectations; object relations; perspectives on self, world, past and future
- **Desires** - values, aspirations, passions, wants
- **Behaviors** - skills; inclinations
Instances of Taking in the Good

- You find yourself already having a good experience.

- You self-activate a good experience by:
  - Looking for a good fact
  - Recalling a good fact
  - Creating a good fact
  - Imagining a good fact that has never been

- Situations:
  - On the fly
  - At specific times (e.g., meals, before bed)
  - When prompted (e.g., by a therapist)
Types of Good Facts

- **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)
Resources for Taking in the Good

- Intention; willing to feel good
- Identified target experience
- Openness to the experience; embodiment
- Mindfulness of the steps of TG to sustain them
- Working through obstructions
Obstructions to Taking in the Good

- 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 someone off the hook
  - Thoughts that TG is craving that leads to suffering
Some Types of Resource Experiences

Avoiding Harms
- Feeling basically alright right now
- Feeling protected, strong, safe, at peace
- The sense that awareness itself is untroubled

Approaching Rewards
- Feeling basically full, the enoughness in this moment as it is
- Feeling pleasured, glad, grateful, satisfied
- Therapeutic, spiritual, or existential realizations

Attaching to Others
- Feeling basically connected
- Feeling included, seen, liked, appreciated, loved
- Feeling compassionate, kind, generous, loving
Implicit TG in Therapy

- 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 TG oneself
Explicit TG in Therapy

- Teaching the method
  - Background helps about brain, negativity bias
  - Emphasizing facts and mild experiences
  - Surfacing obstructions

- Doing TG with client(s) during a session
  - To reinforce a key resource state
  - To link rewards to desired thoughts or actions

- Encouraging TG between sessions
  - Naming occasions
  - Identifying key positive facts and experiences
Doing TG with a Couple

- 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
TIG and Children

- All kids benefit from TIG.
- Particular benefits for mistreated, anxious, spirited/ADHD, or LD children.

Adaptations:
- Brief
- Concrete
- Natural occasions (e.g., bedtimes)
Healing Old Pain
Using Memory Mechanisms to Help Heal Painful Experiences

- The machinery of memory:
  - When explicit or implicit memory is reactivated, it is rebuilt from schematic elements, not retrieved *in toto*.
  - When attention moves on, the memory gets reconsolidated.

- The open processes of memory reactivation and reconsolidation create a window of opportunity for shaping your internal world.

- Reactivated material associates with other things in awareness, especially if they are prominent and lasting.

- When memory returns to storage, it takes associations with it.

- You can imbue memory with positive associations.
The Fourth Step of TG

- 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.
Psychological Antidotes

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

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

**Attaching to Others**
- Attunement, inclusion --> Not seen, rejected, left out
- Recognition, acknowledgement --> Inadequacy, shame
- Friendship, love --> Abandonment, feeling unloved or unlovable
The Tip of the Root

- 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
TG 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 peripheral features and themes of the trauma.

- With care, use the fourth step to get at the heart of the trauma.

*First of all, do no harm.*
De-Fueling the Fires of Suffering
The Fruit as the Path

Peace

Contentment

Love
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.
Think not lightly of good, saying, "It will not come to me."

Drop by drop is the water pot filled.

Likewise, the wise one, gathering it little by little, fills oneself with good.
Great Books

See www.RickHanson.net for other great books.

Key Papers - 1

See www.RickHanson.net for other scientific papers.


Key Papers - 2


- 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.
Key Papers - 3


Key Papers - 4


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