Taking in the Good

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Topics

- The evolving brain - and its challenges today
- “Taking in the good” (TIG)
The Evolving Brain - and Its Challenges
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
- ~ 200 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
Evolutionary History

The Triune 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”
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 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! - no more carrots forever.
Negativity Bias: Physiology and Neuropsychology

- **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
Negative Experiences Can Have Benefits

There’s 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

But is there really any shortage of negative experiences?
Health Consequences of Chronic Stress

Physical:
- Weakened immune system
- Inhibits GI system; reduced nutrient absorption
- Reduced, dysregulated reproductive hormones
- Increased vulnerabilities in cardiovascular system
- Disturbed nervous system

Mental:
- Lowers mood; increases pessimism
- Increases anxiety and irritability
- Increases learned helplessness (especially if no escape)
- Often reduces approach behaviors (less for women)
- Primes aversion (SNS-HPAA negativity bias)
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 Major Result 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 hundred 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.”
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?
We can deliberately use the mind
to change the brain for the better.
Taking in the Good
Being with, Releasing, Replacing

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.
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

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.
Targets of TIG

- Bodily states - healthy arousal; PNS; vitality
- Emotions - both feelings and mood
- Views - expectations; object relations; perspectives on self, world, past and future
- Behaviors - reportoire; inclinations
Kinds of “Good” to Take in

- The small pleasures of ordinary life
- The satisfaction of attaining goals or recognizing accomplishments - especially small, everyday ones
- Feeling grateful, contented, and fulfilled

- Things are alright; nothing is wrong; there is no threat
- Feeling safe and strong
- The peace and relief of forgiveness

- Being included, valued, liked, respected, loved by others
- The good feelings that come from being kind, fair, generous
- Feeling loving

- Recognizing your positive character traits
- Spiritual or existential realizations
Benefits of Positive Emotions

- The 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 benefits, including:
  - Promote exploratory, “approach” behaviors
  - Lift mood; increase optimism, resilience
  - Counteract trauma
  - Strengthen immune and protect cardiovascular systems
  - Overall: “broaden and build”
  - Create positive cycles
The Fourth Step of TIG

- 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

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

Affiliating with “Us”
- Attunement, inclusion --> Not seen, rejected, left out
- Recognition, acknowledgement --> Inadequacy, shame
- Friendship, love --> Abandonment, feeling unloved or unlovable

Avoiding Threats
- Strength, efficacy --> Weakness, helplessness, pessimism
- Safety, security --> Alarm, anxiety
- Compassion for oneself and others --> Resentment, anger
Penetrative insight
joined with calm abiding
utterly eradicates
afflicted states.

Shantideva
Great Books

See www.RickHanson.net for other great books.

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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