Taking in the Good: Helping Children Build Inner Strength and Happiness

Bridging the Hearts and Minds of Youth Conference
UCSD Center for Mindfulness, February 3, 2012

Rick Hanson, Ph.D.
The Wellspring Institute for Neuroscience and Contemplative Wisdom
WiseBrain.org  RickHanson.net
drrh@comcast.net
Topics

- Changing the brain for the better
- The power of mindfulness
- Taking in the good
Changing the Brain for the Better
A Neuron
All cells have specialized functions. Brain cells have particular ways of processing information and communicating with each other. Nerve cells form complete circuits that carry and transform information.

Electrical signaling represents the language of mind, the means whereby nerve cells, the building blocks of the brain, communicate with one another over great distances. Nerve cells generate electricity as a means of producing messages.

All animals have some form of mental life that reflects the architecture of their nervous system.

Eric R. Kandel
Fact #1

As your brain changes, your mind changes.
Ways That Brain Can Change Mind

For better:
- A little caffeine: more alertness
- Thicker insula: more self-awareness, empathy
- More left prefrontal activation: more happiness

For worse:
- Intoxication; imbalances in neurotransmitters
- Concussion, stroke, tumor, Alzheimer’s
- Cortisol-based shrinkage of hippocampus: less capacity for contextual memory
Fact #2

As your mind changes, your brain changes.

Immaterial mental activity maps to material neural activity.

This produces temporary changes in your brain and lasting ones.

Temporary changes include:

- Alterations in brainwaves (= changes in the firing patterns of synchronized neurons)
- Increased or decreased use of oxygen and glucose
- Ebbs and flows of neurochemicals
The Rewards of Love
Tibetan Monk, Boundless Compassion
Christian Nuns, Recalling Profound Spiritual Experiences

Beauregard, et al., Neuroscience Letters, 9/25/06
Mind Changes Brain in Lasting Ways

- What flows through the mind sculpts your brain. Immaterial experience leaves material traces behind.

- Increased blood/nutrient flow to active regions

- Altered epigenetics (gene expression)

- “Neurons that fire together wire together.”
  - Increasing excitability of active neurons
  - Strengthening existing synapses
  - Building new synapses; thickening cortex
  - Neuronal “pruning” - “use it or lose it”
Honoring Experience

One’s experience *matters*. Both for how it feels in the moment and for the lasting residues it leaves behind, woven into the fabric of a person’s brain and being.
Fact #3

You can use your mind
to change your brain
to change your mind for the better.

This is self-directed neuroplasticity.

How to do this, in skillful ways?
The Power of Mindfulness
What Are We Talking About?

- **Awareness** is the field in which neural activity (mysteriously) becomes conscious experience.

- **Attention** is a heightened focus - a spotlight - on a particular content of awareness.

- **Mindfulness** is sustained attentiveness, typically with a metacognitive awareness of being aware.
Why Mindfulness Matters

- In the “stage” of awareness, attention is like a spotlight, illuminating what it rests upon.

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

- Directing attention skillfully 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
Research on Benefits of Mindfulness

- **Dispositional mindfulness**: better mood; less amygdala reactivity

- **MBSR and related trainings**:
  - Psychological: less stress, anxiety, panic, or OCD; more empathy; greater well-being, responsibility, self-actualization, and self-directedness; less depression relapse
  - Physical: reduced pain, fibromyalgia, psoriasis, and insomnia; for cancer, reduced distress and physical suffering; for type 2 diabetes, improved glycemic control

- **Meditation**:
  - Psychological: improved attention and compassion
  - Physical: decreased cortisol; strengthened immune system; reduced symptoms of cardiovascular disease, asthma, type II diabetes, PMS, and chronic pain
Research on Effects of Meditation on Brain

- Increased gray matter in the: **insula** (interoception; self-awareness; empathy for emotions); **hippocampus** (visual-spatial memory; establishing context; inhibiting amygdala and cortisol); and **prefrontal cortex** (executive functions; attention control)

- Reduced cortical thinning with aging in insula and PFC

- Increased activation of left frontal regions, which lifts mood

- Increased power and reach of gamma-range brainwaves: linked to learning and perhaps “unitary awareness”

- Preserved telomeres: linked to reducing health effects of aging
Taking in the Good
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
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
Why It’s Good to Take in the Good

- Rights an unfair imbalance, given the negativity bias

- Gives oneself today the caring and support one should have received as a child, but perhaps didn’t get in full measure; an inherent, implicit benefit

- Increases positive resources, such as:
  - Positive emotions
  - Capacity to manage stress and negative experiences

- Can help bring in missing “supplies” (e.g., love, strength, worth)

- Can help painful, even traumatic experiences
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
TIG and Children

- All kids benefit from TIG.

- Particular benefits for mistreated, anxious, spirited/“ADHD,” or learning different children

- Adaptations:
  - Brief
  - Concrete
  - Natural occasions (e.g., bedtimes)
“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
Great Books

See www.RickHanson.net for other great books.

Key Papers - 1

See www.RickHanson.net for other scientific papers.


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 - 4


Where to Find Rick Hanson Online

http://www.youtube.com/BuddhasBrain
http://www.facebook.com/BuddhasBrain

www.RickHanson.net
www.WiseBrain.org