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Greater
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Science
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The Greater Good Science Center

Resources for a compassionate and resilient society

- **Online Magazine:** Find award-winning articles, parenting blog, videos, podcasts, and more at www.GreaterGoodScience.org
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Taking in the Good:
Building Inner Resources
And Stronger Relationships

Greater Good Science Center
UC Berkeley, March 14, 2015

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www.WiseBrain.org

www.RickHanson.net

Topics

- **Growing inner strengths**
- **Experience-dependent neuroplasticity**
- **Positive neuroplasticity**
- **The negativity bias**
- **The HEAL process**
- **The social brain**
- **Me and we**
- **Connection and kindness**
- **The strong heart**
- **The law of little things**



Growing Inner Strengths

What Shapes Your Course in Life?

Challenges

Vulnerabilities

Resources

What Can You Usually Affect the Most?

Resources

Where Are Resources Located?

The World

The Body

The Mind

What Can You Usually Affect the Most?

The Mind

Two wolves in the heart



Inner Strengths

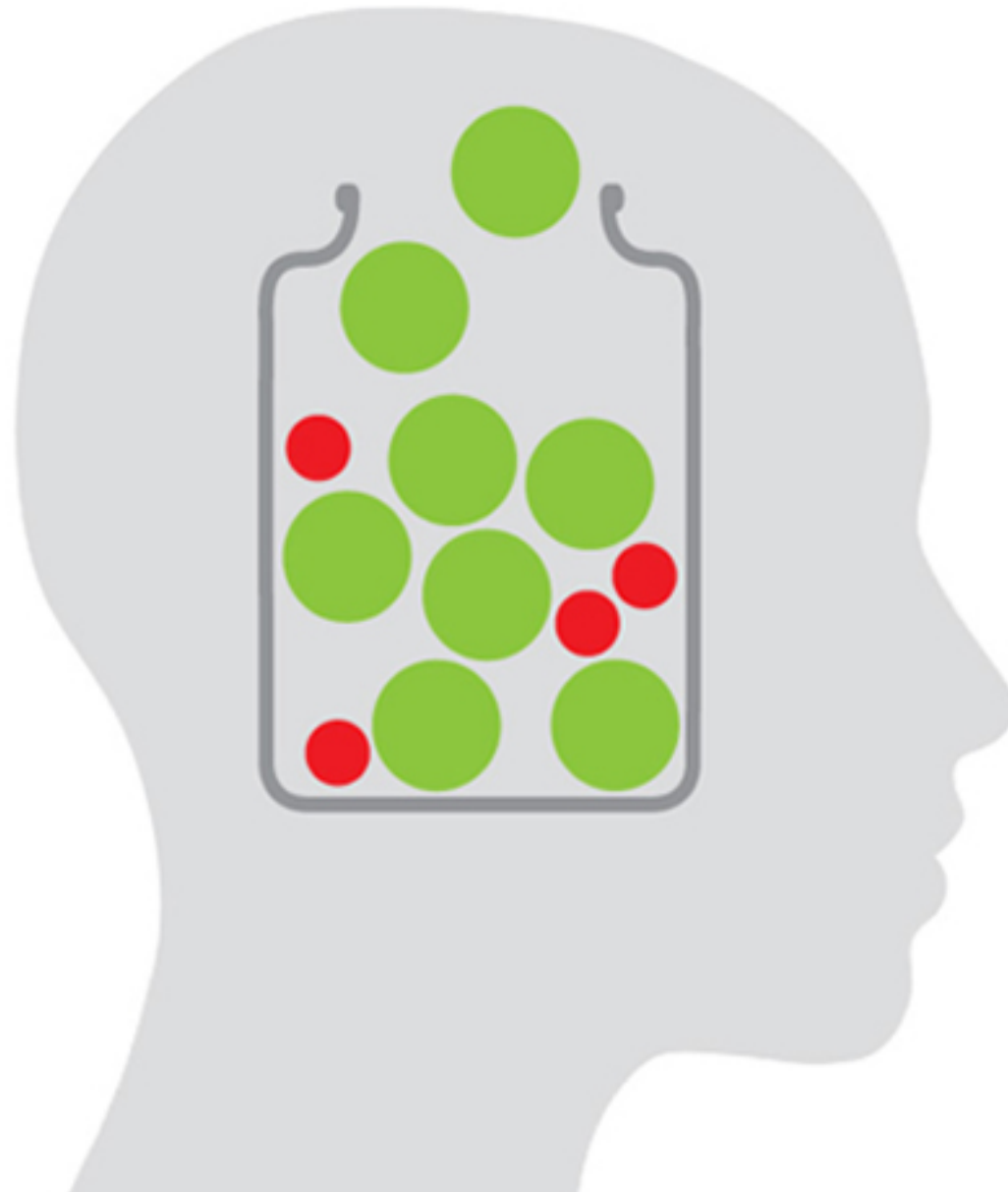
- **Understandings**
- **Capabilities**
- **Positive emotions**
- **Attitudes**
- **Motivations**
- **Virtues**

Pick a partner and choose an A and a B (A's go first). Then you'll take turns, with one partner mainly speaking while the other person listens, exploring two questions:

What are some of your psychological resources – inner strengths – especially for your relationships?

What inner strengths would you like to develop in yourself for your relationships?

INNER STRENGTHS ARE BUILT FROM BRAIN STRUCTURE






**How do you get those inner strengths
into the brain?**



Experience-Dependent Neuroplasticity





**Mental activity entails
underlying neural activity.**

**Repeated mental activity entails
repeated neural activity.**

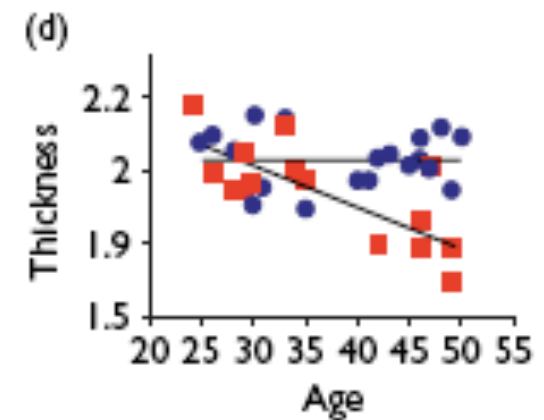
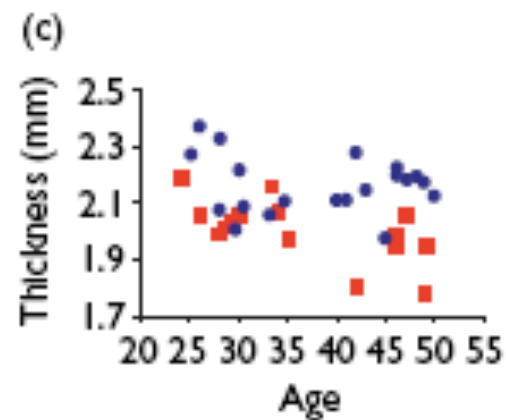
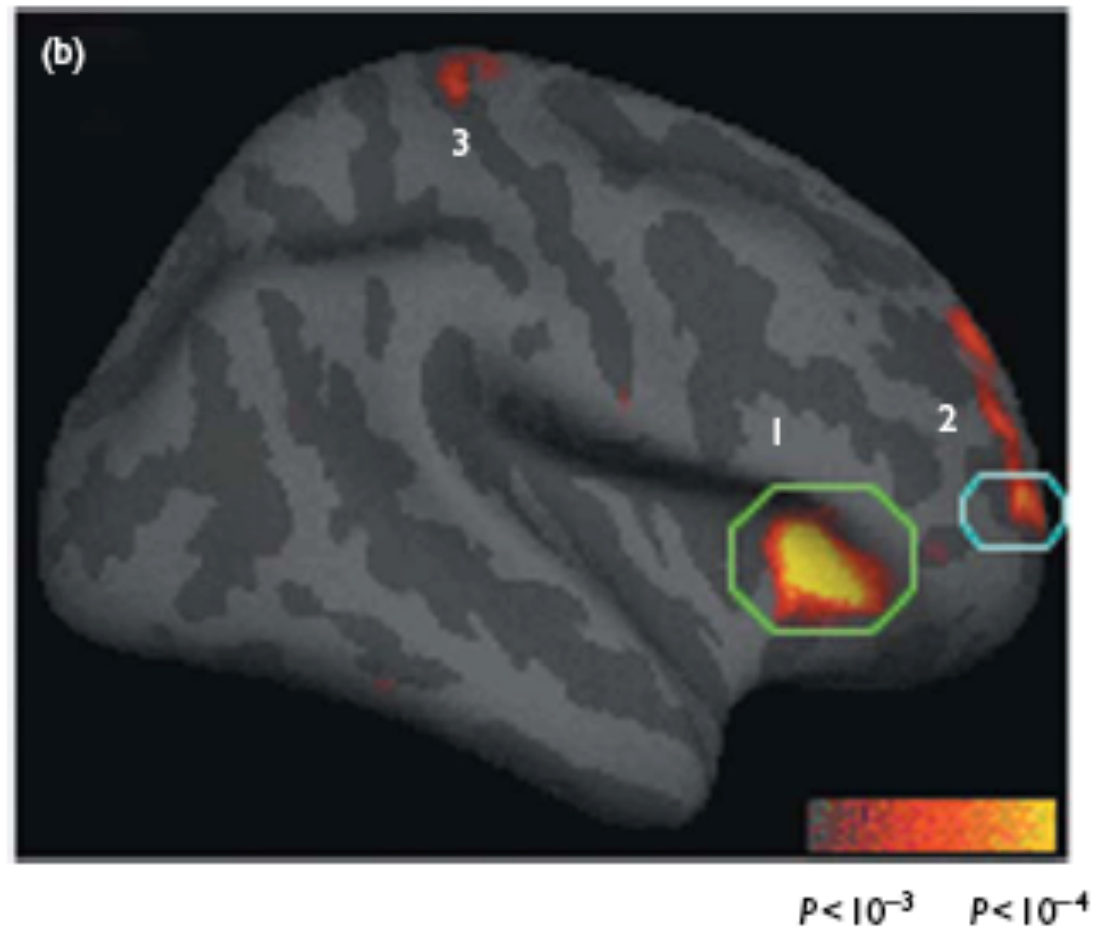
**Repeated neural activity
builds neural structure.**

A network of glowing yellow neurons with a central neuron highlighted in green. The neurons are interconnected by a dense web of thin, yellow fibers, resembling a neural network. The central neuron has a bright green nucleus and is surrounded by a network of yellow fibers. The background is dark, making the glowing neurons stand out.

Neurons that fire together,

wire together.

Lazar, et al. 2005.
Meditation
experience is
associated
with increased
cortical thickness.
Neuroreport, 16,
1893-1897.



The Opportunity

We can use the mind

To change the brain

To change the mind for the better

To benefit ourselves and other beings.



Positive Neuroplasticity

The Neuropsychology of Learning

**Change of neural structure and function –
learning, including emotional, social, and
motivational growth – has two stages:**

**From short-term memory buffers
to long-term storage**

From state to trait

From activation to installation

Inner strengths are grown from experiences of them or related factors - activated states - that are installed as traits.

**You become more compassionate
by repeatedly installing experiences of compassion.**

**You become more grateful
by repeatedly installing experiences of gratitude.**

**You become more mindful
by repeatedly installing experiences of mindfulness.**

**Most experiences of inner strengths –
resilience, kindness, insight,
mindfulness, self-worth, love, etc. –
are enjoyable.**

Let's Try It

- **Notice** the experience already present in awareness that you are related to or connected with others.
 - Have the experience.
 - Enrich it.
 - Absorb it.

- **Create** the experience of compassion.
 - Have the experience - bring to mind someone you care about . . . Feel caring . . . Wish that he or she not suffer . . . Open to compassion.
 - Enrich it.
 - Absorb it.

**Without installation – without turning
passing mental states into enduring neural
structure – there is no learning, no change
in the brain.**

**Activation without installation is pleasant,
but has no lasting value.**

**What fraction of your beneficial mental
states ever become neural structure?**

*The same research that proves therapy works
shows no improvement in outcomes
over the last 30 or so years.*

Scott Miller



The Negativity Bias

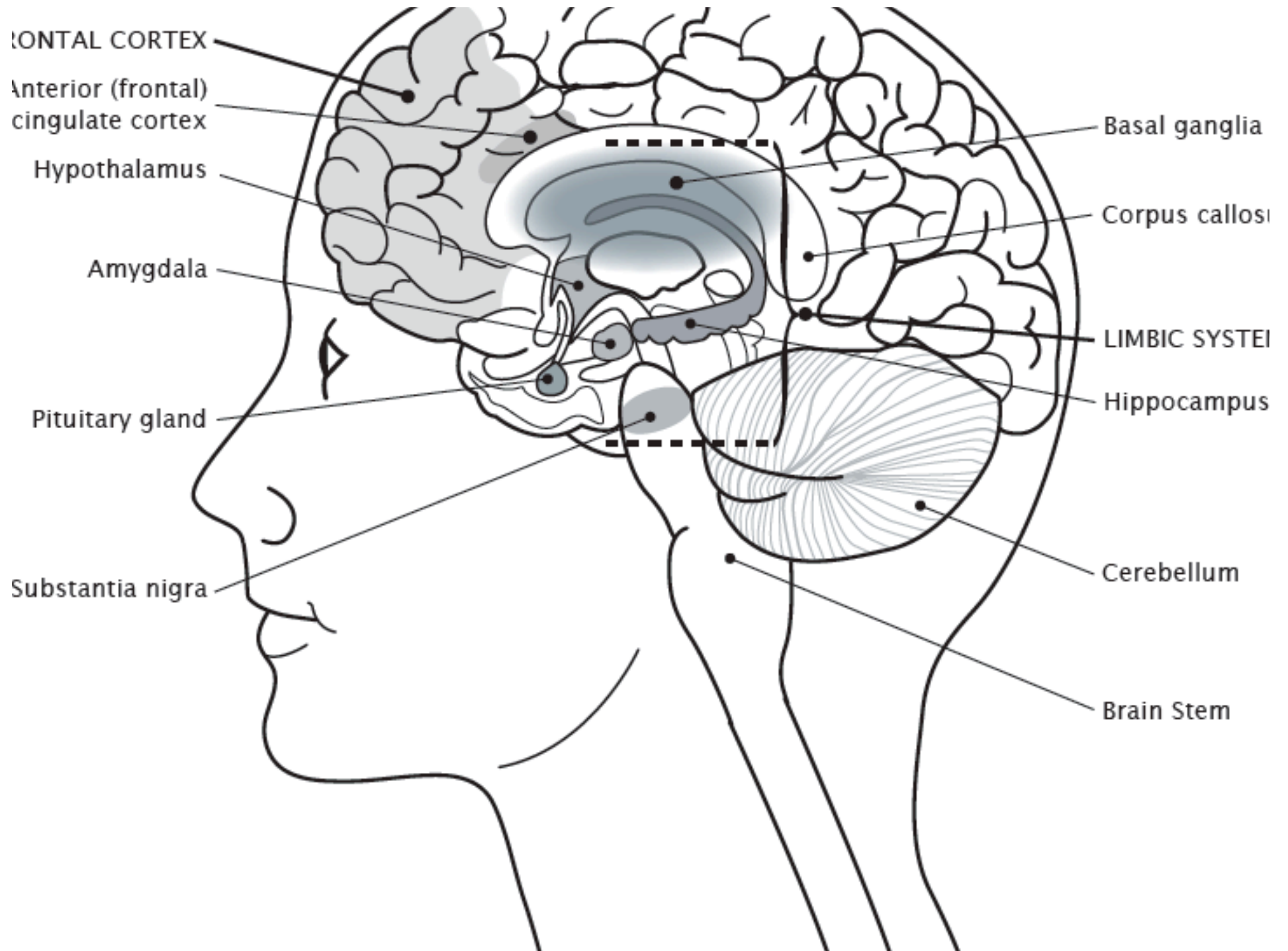
Unpleasant Experiences In Context

- Life contains unavoidable unpleasant experiences. Resisting them just adds to the stress, upset, etc.
- Some inner strengths come only from unpleasant experiences, e.g., knowing you'll do the hard thing.
- But unpleasant experiences have inherent costs, in their discomfort and stress.
- Many inner strengths could have been developed without the costs of unpleasant experiences.
- Most unpleasant experiences are pain with no gain.

The Brain's Negativity Bias

As our ancestors evolved, avoiding “sticks” was more important than getting “carrots.”

1. So we scan for bad news.
2. Over-focus on it, losing sight of the whole
3. Over-react to it (e.g., brain, loss aversion)
4. Install it rapidly in implicit memory (e.g., negative interactions, learned helplessness)
5. Sensitize the brain to the negative
6. Create vicious cycles



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Velcro for Bad, Teflon for Good

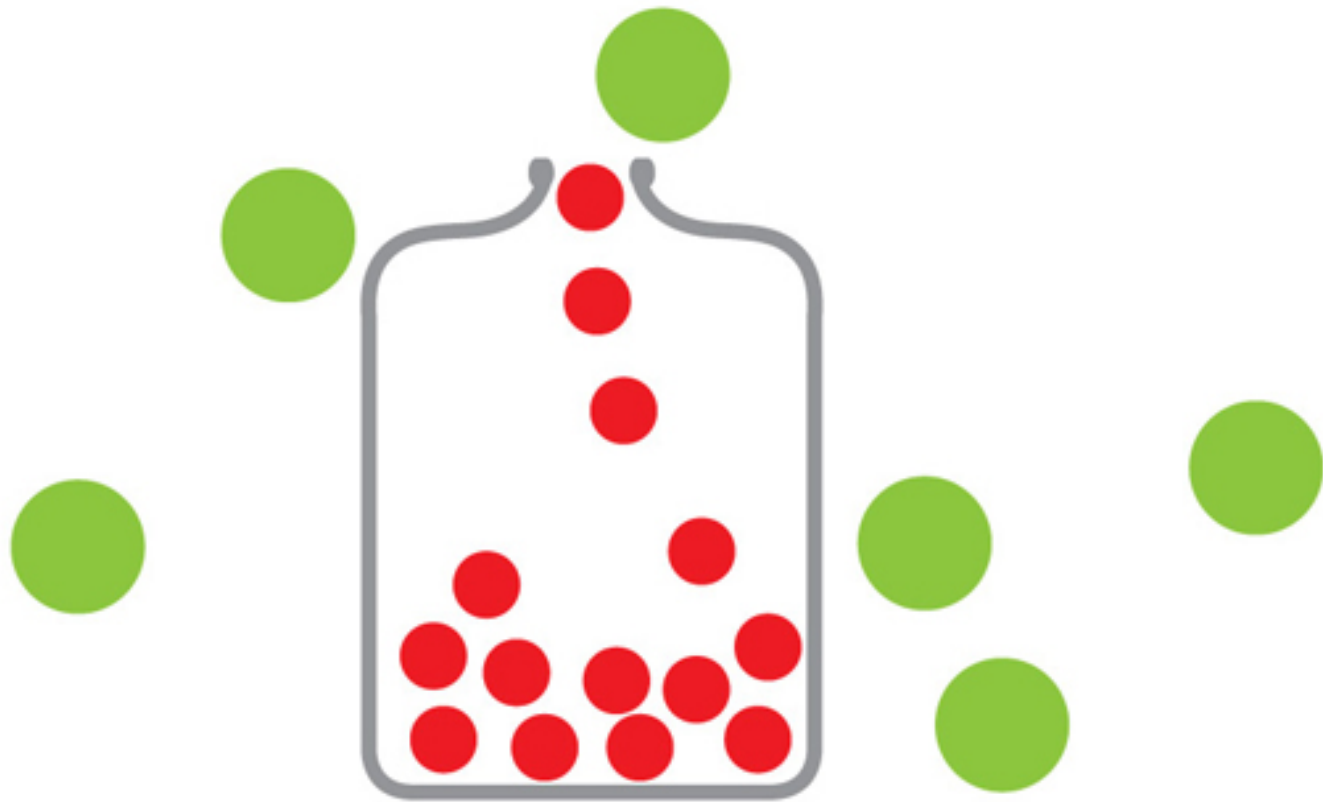
The negativity bias

bad experiences

good experiences

The brain is good at learning from bad experiences but bad at learning from good ones.

Even though learning from good experiences is the primary way to grow psychological resources.



The Negativity Bias

Stone age brains in the 21st century



The installation of beneficial experiences is worth doing in its own right.

And – the negativity bias adds another reason for positive installation: to compensate for our over-learning from the negative.

Self-Compassion

- Compassion is the wish beings not suffer, with warm-hearted concern. Compassion is sincere even if we can't make things better.
- Self-compassion simply applies this to oneself.
- To encourage self-compassion:
 - Get the sense of being cared about.
 - Bring to mind beings you care about. Find compassion for them.
 - Shift the compassion to yourself.

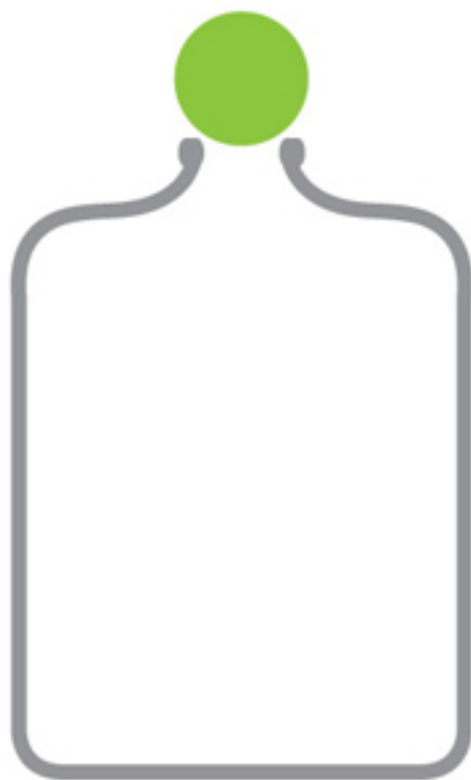
“Anthem”

*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



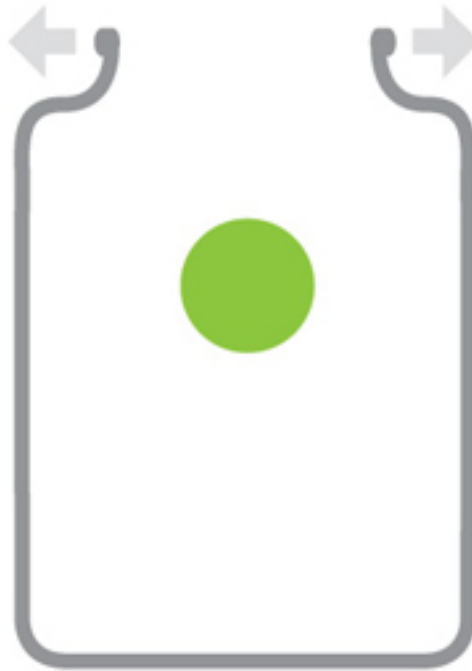
The HEAL Process



Have a Good Experience

Elements of Experience

- **Thought** – belief; perspective; expectation; image; memory; idea
- **Perception** – sensation (e.g., relaxation, vitality); sight; sound; taste; smell
- **Emotion** – feeling; mood
- **Desire** – want; wish; hope; value; drive; motivation; purpose; dream; passion; determination
- **Action** – behavior; posture; knowing how to



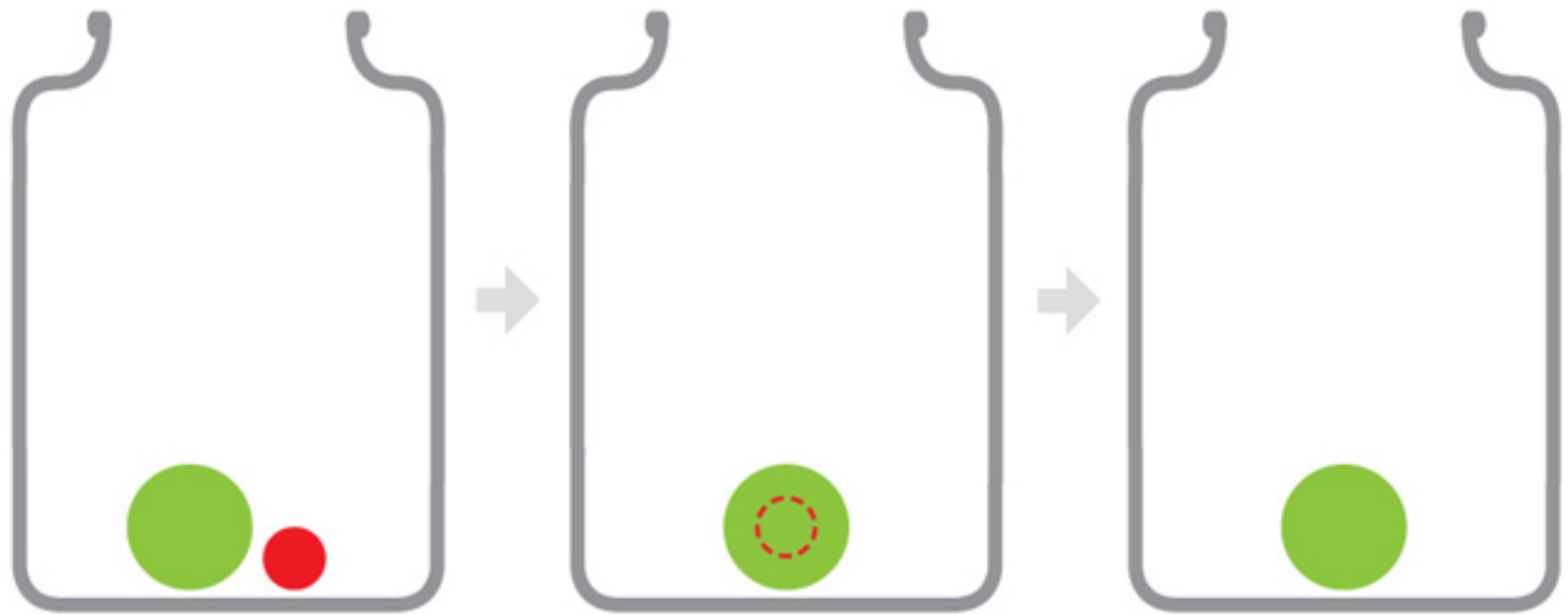
Enrich It

How to Enrich an Experience

- **Duration** – 5+ seconds; protecting it; keeping it going
- **Intensity** – opening to it in the mind; helping it get big
- **Multimodality** – engaging multiple aspects of experience, especially perception and emotion
- **Novelty** – seeing what is fresh; “don’t know mind”
- **Salience** – seeing why this is personally relevant



Absorb It



Link Positive and Negative Material

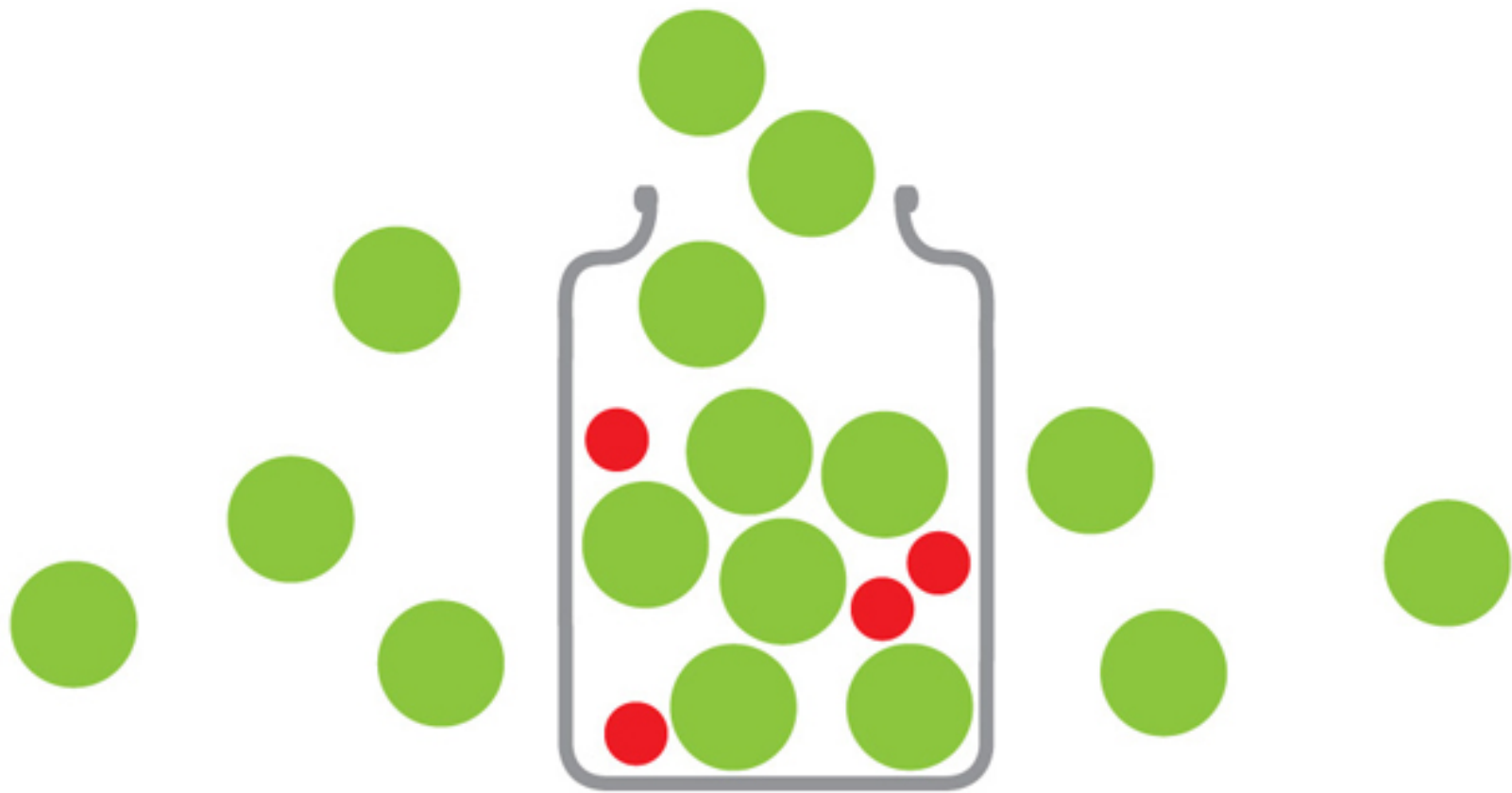
Positive Neuroplasticity – How to Take in the Good: HEAL

Activation

1. Have a beneficial experience.

Installation

2. Enrich the experience.
3. Absorb the experience.
4. Link positive and negative material. [optional]



Have It, Enjoy It

Pick a partner and choose an A and a B (A's go first). Then you'll take turns, with one partner mainly speaking while the other person listens, exploring this question:

What are some good things in your life these days?

→ While listening, open to happiness at the good fortune of your partner.



The Social Brain

The Evolution of Relationships

- Social capabilities: a primary driver of brain evolution.
- Mammals and birds: bigger brains than reptiles and fish.
- More social primate species have bigger brains.
- Since the first hominids began making tools ~ 2.5 million years ago, the brain has roughly tripled in size, much of its build-out devoted to social functions (e.g., empathy, cooperative planning, language). The growing brain needed a longer childhood, which required greater pair bonding and band cohesion.











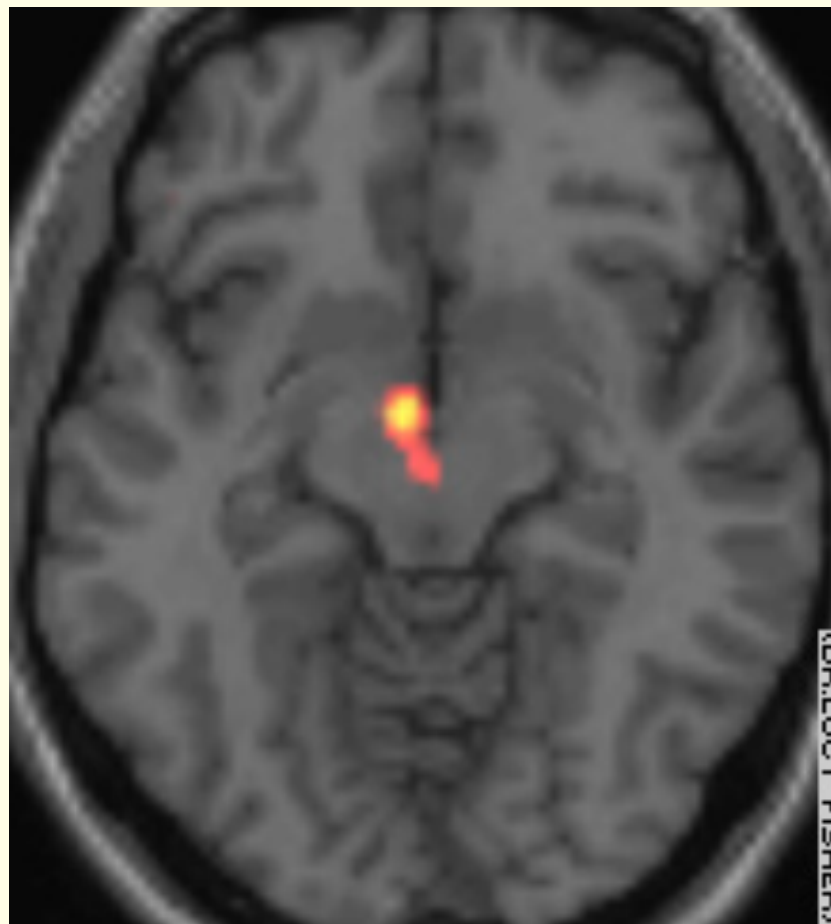






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Rewards of Love

























If there is anything I have learned about [people], it is that there is a deeper spirit of altruism than is ever evident.

Just as the rivers we see are minor compared to the underground streams, so, too, the idealism that is visible is minor compared to what people carry in their hearts unreleased or scarcely released.

(Hu)mankind is waiting and longing for those who can accomplish the task of untying what is knotted, and bringing these underground waters to the surface.

Albert Schweitzer





Me and We

*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

*If one going down into a river,
swollen and swiftly flowing,
is carried away by the current --
how can one help others across?*

The Buddha

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

Feeling Strong

- Recalling times you felt strong . . . Determined . . .
Standing up for others or yourself . . . Enduring . . .
- Opening to these experiences of strength . . . Feeling
them in your body.
- Strength sinking into you, you becoming strength
- A spacious strength that lets others flow through
- In relationship and at peace

Feeling of Worth

- It is natural and important to feel that you have worth as a person – which does not mean arrogance or ego.
- You develop this sense of worth through:
 - Others including, appreciating, liking, and loving you
 - You respecting yourself
- Take in experiences of being:
 - Capable, skillful, talented, helpful
 - Included, wanted, sought out, chosen
 - Appreciated, acknowledged, respected
 - Liked, befriended, supported
 - Loved, cherished, special



Connection and Kindness

The Wisdom of Connection

A human being is a part of a whole, called by us “universe,” a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest ... a kind of optical delusion of ... consciousness.

This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us.

Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.

Albert Einstein

Three Kinds of Relationships

■ I – Thou

- Recognizing others as beings, as persons
- Independent of liking, approval, agreement

■ I – It

- Little or no sense of the other as a being
- Using others as a means to one's ends

■ It – It

- Bodies in space, moving past each other



Kindness Practice

- Types of wishes

- Safety
- Health
- Happiness
- Ease

- Types of beings

- Benefactor
- Friend
- Neutral
- Self
- Difficult

- Continually “omitting none” in all directions



The Strong Heart

Us and Them

- Core evolutionary strategy: within-group cooperation, and between-group aggression.
- Both capacities and tendencies are hard-wired into our brains, ready for activation. And there is individual variation.
- Our biological nature is much more inclined toward cooperative sociability than toward aggression and indifference or cruelty. We are just very reactive to social distinctions and threats.
- That reactivity is intensified and often exploited by economic, cultural, and religious factors.
- Two wolves in your heart:
 - Love sees a vast circle in which all beings are “us.”
 - Hate sees a small circle of “us,” even only the self.

Which one will you feed?

Unilateral Virtue

- What's your own integrity, and code of conduct? Such as speech that is well-intended, true, beneficial, timely, not harsh, and (ideally) wanted.
- Unilateral virtue simplifies things: all you have to do is live by your own code, and others do what they do.
- It feels good in its own right; it brings peace of mind, “the bliss of blamelessness.”
- It reduces triggers, encourages good behavior in others, and puts you on the moral high ground.
- It teaches you what you can ask for from others

Strength with Heart

- See clearly, not over- or under-estimating others; name the truth to yourself.
- Know your aims; stay focused on the prize.
- Empathy-building: speak from the heart; focus on your experience; reveal the deeper levels; try NVC.
- Policy-making: establish facts and values; focus on solutions from now on; make clear plans/agreements; address broken agreements.
- Scale relationships to their actual foundations; disentangle from networks of undependability.
- Dignity and gravity.



The Law of Little Things

*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.*

Thank you



Suggested Books

See www.RickHanson.net for other great books.

- Austin, J. 2009. *Selfless Insight*. MIT Press.
- Begley, S. 2007. *Train Your Mind, Change Your Brain*. Ballantine.
- Carter, C. 2010. *Raising Happiness*. Ballantine.
- Hanson, R. (with R. Mendius). 2009. *Buddha's Brain: The Practical Neuroscience of Happiness, Love, and Wisdom*. New Harbinger.
- Johnson, S. 2005. *Mind Wide Open*. Scribner.
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- Kornfield, J. 2009. *The Wise Heart*. Bantam.
- LeDoux, J. 2003. *Synaptic Self*. Penguin.
- Linden, D. 2008. *The Accidental Mind*. Belknap.
- Sapolsky, R. 2004. *Why Zebras Don't Get Ulcers*. Holt.
- Siegel, D. 2007. *The Mindful Brain*. Norton.
- Thompson, E. 2007. *Mind in Life*. Belknap.

Key Papers - 1

See www.RickHanson.net for other scientific papers.

- Atmanspacher, H. & Graben, P. 2007. Contextual emergence of mental states from neurodynamics. *Chaos & Complexity Letters*, 2:151-168.
- Baumeister, R., Bratlavsky, E., Finkenauer, C. & Vohs, K. 2001. Bad is stronger than good. *Review of General Psychology*, 5:323-370.
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Key Papers - 2

- Davidson, R.J. 2004. Well-being and affective style: neural substrates and biobehavioural correlates. *Philosophical Transactions of the Royal Society*. 359:1395-1411.
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- Hagmann, P., Cammoun, L., Gigandet, X., Meuli, R., Honey, C.J., Wedeen, V.J., & Sporns, O. 2008. Mapping the structural core of human cerebral cortex. *PLoS Biology*. 6:1479-1493.
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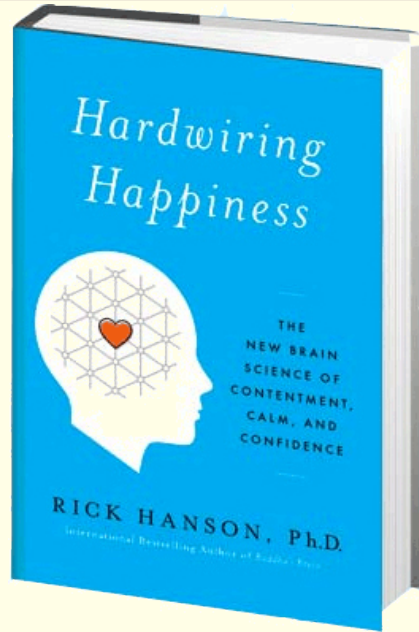
Key Papers - 3

- Lazar, S., Kerr, C., Wasserman, R., Gray, J., Greve, D., Treadway, M., McGarvey, M., Quinn, B., Dusek, J., Benson, H., Rauch, S., Moore, C., & Fischl, B. 2005. Meditation experience is associated with increased cortical thickness. *Neuroreport*. 16:1893-1897.
- Lewis, M.D. & Todd, R.M. 2007. The self-regulating brain: Cortical-subcortical feedback and the development of intelligent action. *Cognitive Development*, 22:406-430.
- Lieberman, M.D. & Eisenberger, N.I. 2009. Pains and pleasures of social life. *Science*. 323:890-891.
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Key Papers - 4

- Rozin, P. & Royzman, E.B. 2001. Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5:296-320.
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- Walsh, R. & Shapiro, S. L. 2006. The meeting of meditative disciplines and Western psychology: A mutually enriching dialogue. *American Psychologist*, 61:227-239.

Where to Find Rick Hanson Online



***Hardwiring Happiness: The New
Brain Science of Contentment,
Calm, and Confidence***

www.rickhanson.net/hardwiringhappiness

Personal website: www.rickhanson.net

Wellspring Institute: www.wisebrain.org



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[facebook.com/rickhansonphd](https://www.facebook.com/rickhansonphd)