Hardwiring Happiness:

Growing Inner Strengths
In Children, Parents, and Teachers

Neuroplasticity and Education Conference

Eaton Educational Group

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Rick Hanson, Ph.D.

The Wellspring Institute for Neuroscience and Contemplative Wisdom

WiseBrain.org **RickHanson.net**

Topics

- Self-directed neuroplasticity
- Growing inner strengths
- The negativity bias
- Taking in the good
- Healing old pain
- Caring for the brain

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

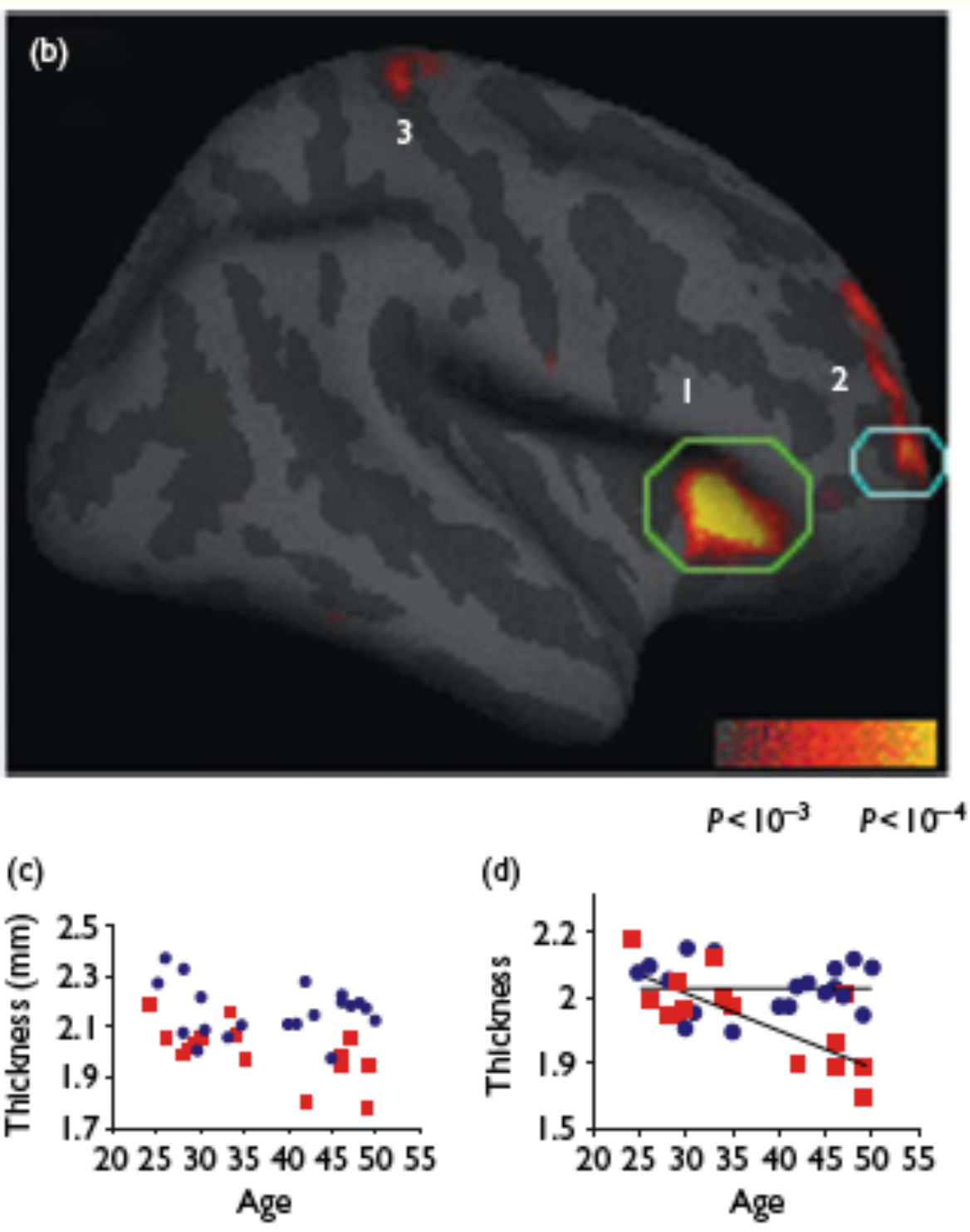
Mental activity entails underlying neural activity.

Repeated mental activity entails repeated neural activity.

Repeated neural activity builds neural structure.

Neurons that fire together,
wire together.

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



The Activation/Installation Positive Cycle

States are temporary, traits are enduring.

Activated mental states are the basis for installed neural traits.

Positive traits foster positive states.

Activated states --> Installed traits --> Reactivated states --> Reinforced traits

The Opportunity

We can use the mind

To change the brain

To change the mind for the better

To benefit ourselves and other beings.

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.

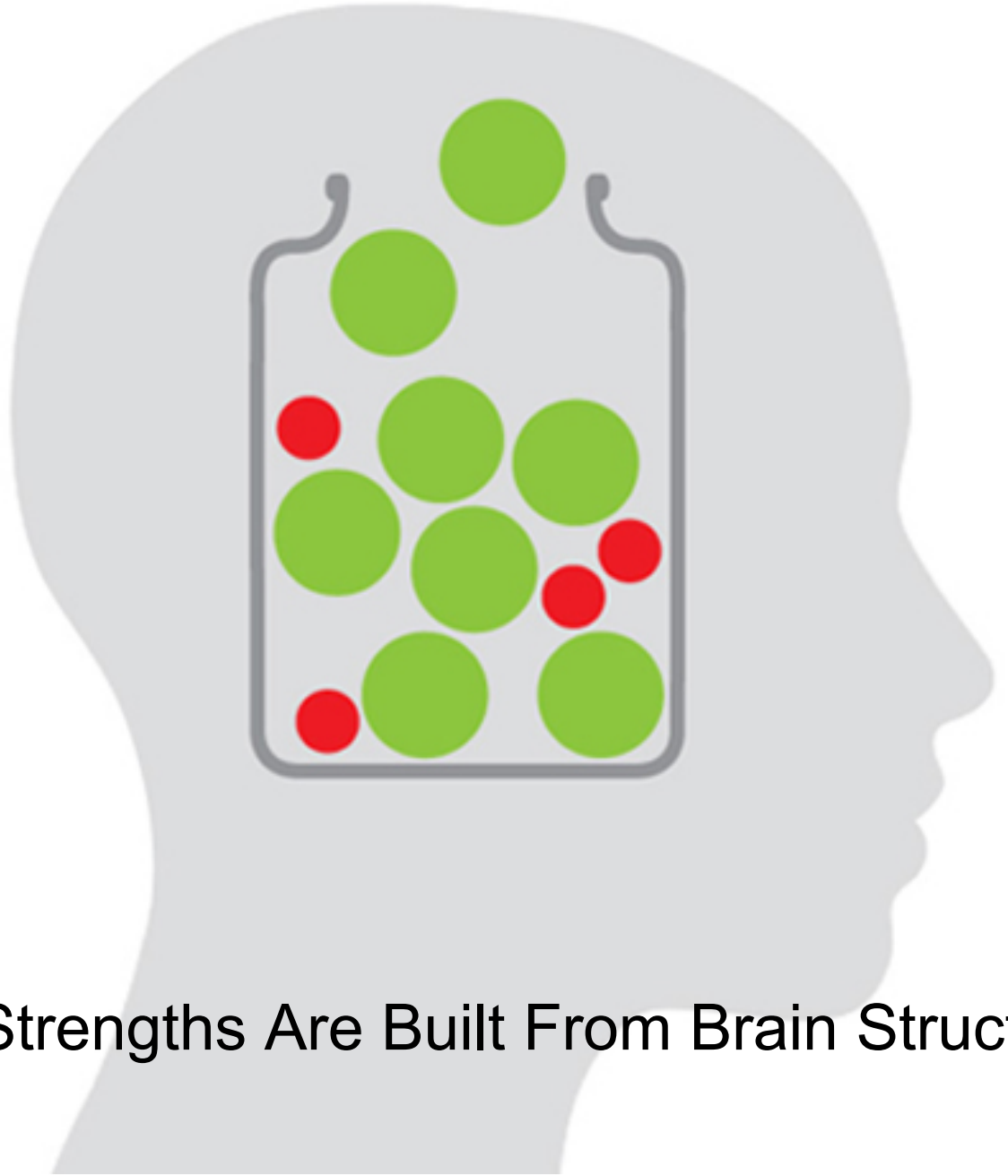
Bertrand Russell

Growing Inner Strengths

Two wolves in the heart

Inner Strengths 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)



Inner Strengths Are Built From Brain Structure

The Causes of Inner Strengths

How *do we grow the neural traits of inner strengths?*

Inner strengths come mainly from positive experiences. Positive traits come from positive states.

You develop mindfulness by repeatedly being mindful; you develop compassion by repeatedly feeling compassionate; etc.

The brain is like a VCR or DVR, not an iPod: you must play the song to record it - you must experience the strength to install it in your brain.

The Negativity Bias

The Brain's Negativity Bias

- As our ancestors evolved, avoiding "sticks" was more important for survival than getting "carrots."

- Negative stimuli:
  - More attention and processing
  - Greater motivational focus: loss aversion

- Preferential encoding in implicit memory:
  - We learn faster from pain than pleasure.
  - Negative interactions: more impactful than positive
  - Easy to create learned helplessness, hard to undo
  - Rapid sensitization to negative through cortisol

Velcro for Bad, Teflon for Good

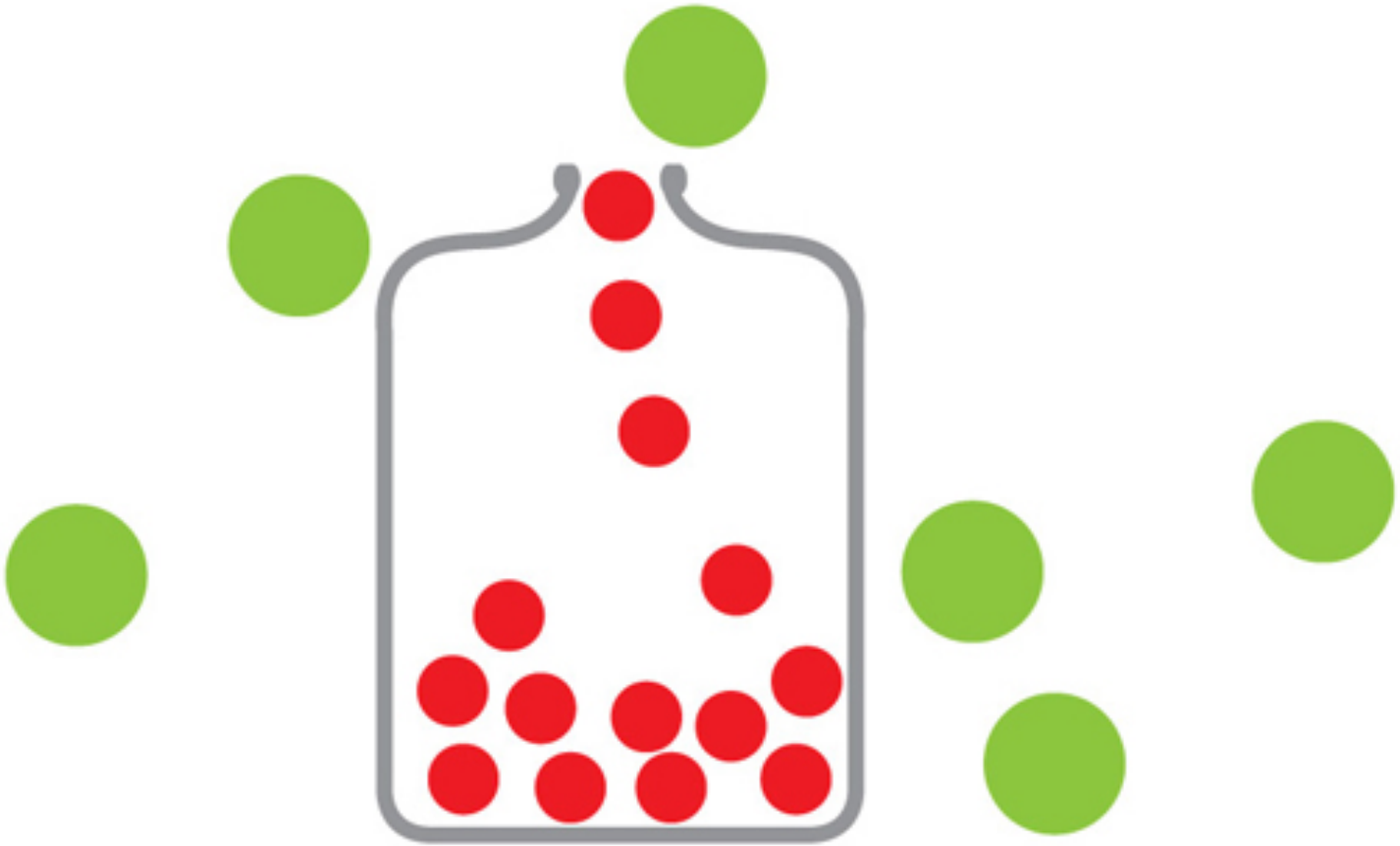
A Bottleneck For Growing Inner Strengths

Unfortunately, the brain is inefficient at turning positive experiences into neural structure.

This design feature of the brain creates a kind of bottleneck that reduces the conversion of positive mental states to positive neural traits.

Most positive experiences are wasted on the brain.

This is the fundamental weakness in psychotherapy, mindfulness training, character education, human resources training, and informal efforts at growth.



The Negativity Bias

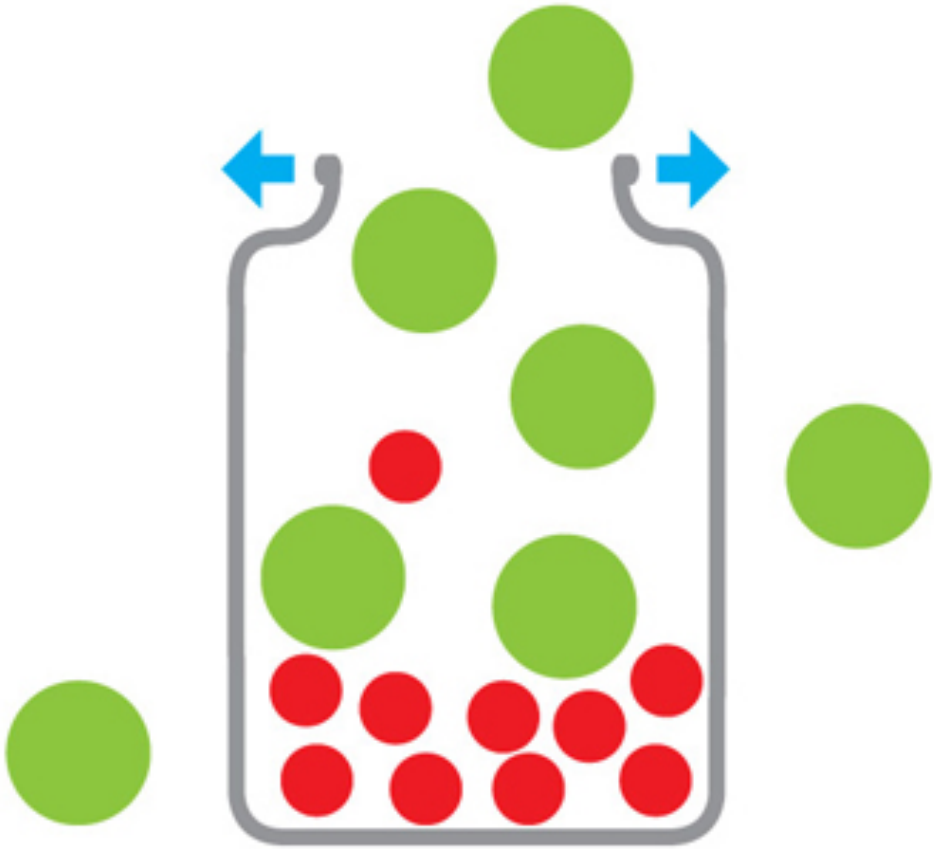
Stone age brains in the 21st century

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.



Learning to Take in the Good

HEAL by Taking in the Good

1. **H**ave a positive experience. Notice it or create it.

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

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

4. **L**ink positive and negative material. [optional]

Let's Try It

- **Notice** the experience already present in awareness that you are alright right now
  - 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

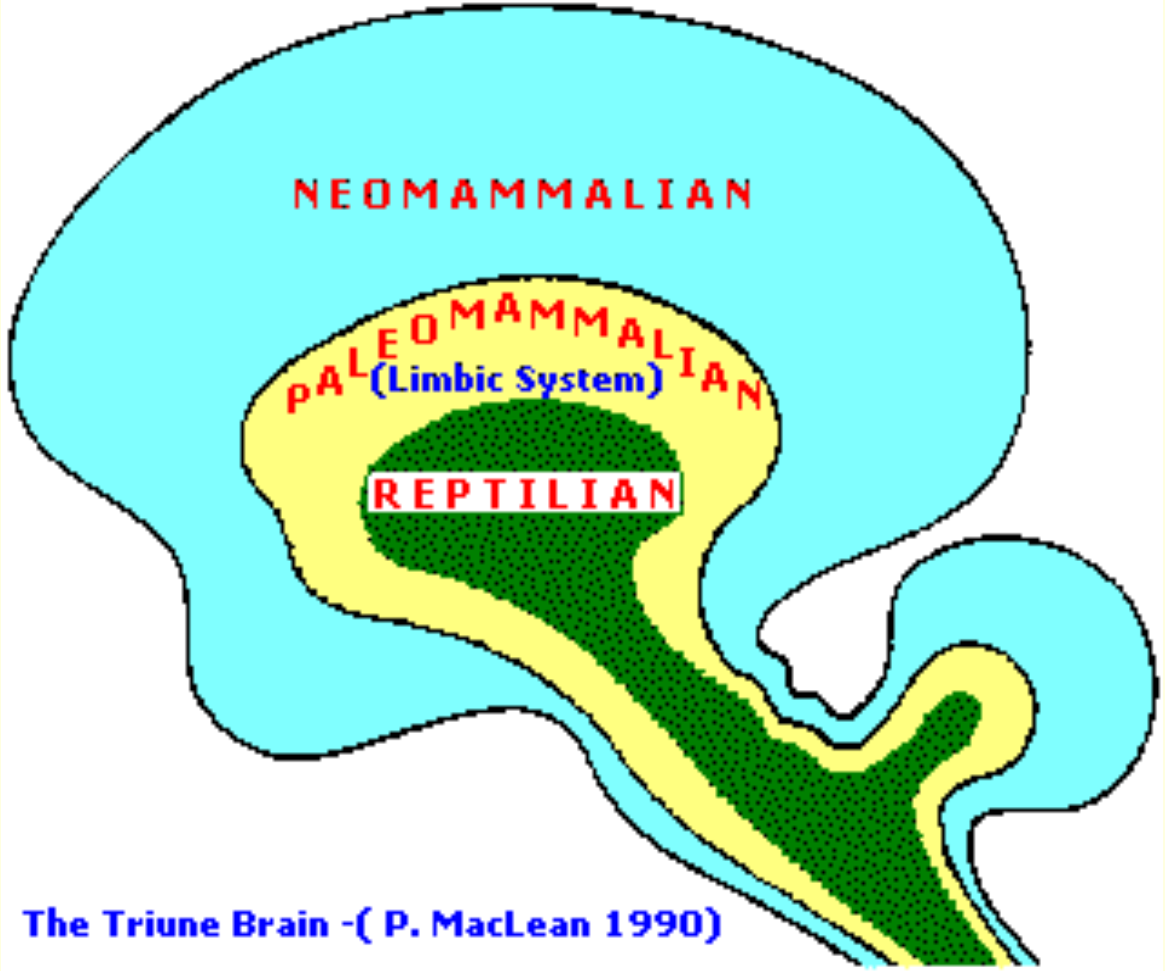
Targets of TG

- **Thoughts** - expectations; object relations; perspectives on self, world, past and future
- **Perceptions** - sensations; relaxation; vitality
- **Emotions** - both feelings and mood
- **Desires** - values, aspirations, passions, wants
- **Behaviors** - reportoire; inclinations

The Four Ways to Offer a Method

- Doing it implicitly
- Teaching it and then leaving it up to the person
- Doing it explicitly with the person
- Asking the person to do it on his or her own

Evolutionary History



The Triune Brain

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.

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

TG and Children

- All kids benefit from TG.
- Particular benefits for mistreated, anxious, spirited/ ADHD, or LD children.
- Adaptations:
  - Brief
  - Concrete
  - Natural occasions (e.g., bedtimes)

In Couples, Benefits of TG

- "Installs" key resources that support interactions (e.g., self-soothing, recognition of the other person's good intentions)
- Dampens vicious cycles
- Helps partner feel seen, credited for sincere efforts
- Increases the sense of the good that is present
- Reduces clinginess, pursuing, reproach that partner withdraws from

It's Good to Take in the Good

- Development of specific inner strengths
  - General - resilience, positive mood, feeling loved
  - "Antidote experiences" - Healing old wounds, filling the hole in the heart
- Implicit benefits:
  - Shows that there is still good in the world
  - Being active rather than passive
  - Treating yourself kindly, like you matter
  - Rights an unfair imbalance, given the negativity bias
  - Training of attention and executive functions
- Sensitizes brain to positive: like Velcro for good

Keep a green bough in your heart,
and a singing bird will come.

Lao Tsu

Healing Old Pain

The Fourth Step of HEAL

- 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

Caring for the Brain

Coming Home . . .

Peace

Contentment

Love

Pet the Lizard

Feed the Mouse

Hug the Monkey

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.

Dhammapada 9.122

Thank you

Great Books

See www.RickHanson.net for other great books.

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Key Papers - 1

See www.RickHanson.net for other scientific papers.

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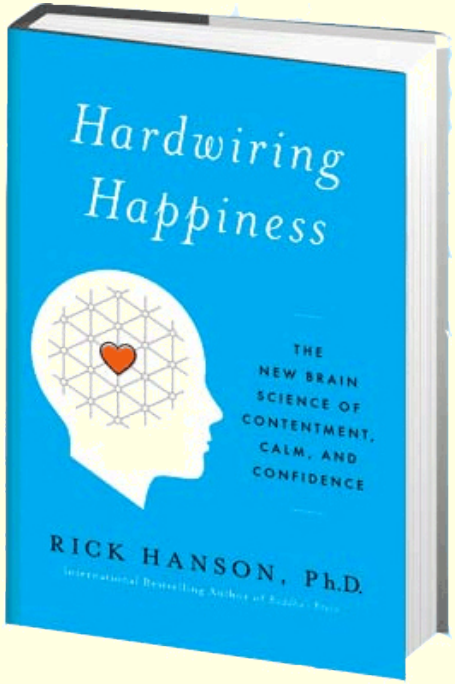

Hardwiring Happiness: The New Brain Science of Contentment, Calm, and Confidence

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