Hardwiring Happiness:
Growing Inner Strengths
In Children, Parents, and Families

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

- Self-directed neuroplasticity
- Resource yourself
- How to grow mental resources: inner strengths
- The negativity bias

- Positive neuroplasticity: taking in the good
- Practical uses of the HEAL process
- Key resource experiences
- Linking positive and negative
- Coming home
Self-Directed Neuroplasticity
A Neuron

- Dendrite
- Soma (cell body)
- Nucleus
- Axon
- Axon terminal button
- Myelin sheath
Mental activity entails underlying neural activity.
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
Repeated mental activity entails repeated neural activity.

Repeated neural activity builds neural structure.
Neurons that fire together, 
wire together.
We can use the mind

To change the brain

To change the mind for the better

To benefit ourselves and other beings.
Resource Yourself
What Is Happiness?

- **“Hedonia”** – Pleasure, delight, gratitude, fun; friendliness, kindness, love, feeling cared about, happiness for others; accomplishment, worth; enjoyment of learning, beauty, music, making things

- **“Eudaimonia”** – Sense of purpose, contribution, service, meaning, fulfillment, harmony, spirituality
What Determines Happiness 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
How to Grow Mental Resources: Inner Strengths
Two wolves in the heart
Inner Strengths Include

- **Capabilities** (e.g., mindfulness, insight, emotional intelligence, resilience, executive functions, impulse control)

- **Positive emotions** (e.g., gratitude, self-worth, love, self-compassion, secure attachment, gladness, awe, serenity)

- **Attitudes** (e.g., openness, determination, optimism, confidence, approach orientation, tolerance, self-respect)

- **Somatic inclinations** (e.g., vitality, relaxation, grit, helpfulness)

- **Virtues** (e.g., wisdom, patience, energy, generosity, restraint)
Inner Strengths Are Built From Brain Structure
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
Be mindful of the difference between:

An idea and an experience

Noticing an experience and creating one

Having an experience and internalizing it
Why are we emphasizing internalization through enriching and absorbing?
Learning – changing neural structure and function – proceeds in two stages:

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

From **state** to **trait**

From **activation** to **installation**
Growing Inner Strengths

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.
Without this installation, there is no learning, no change in the brain.
In general, we’re good at activation but bad at installation.

This is the fundamental weakness in most human resources training, psychotherapy, coaching, social-emotional education in schools, and mindfulness training.
The same research that proves therapy works shows no improvement in outcomes over the last 30 or so years.

Scott Miller
Meanwhile your painful, harmful experiences are being rapidly converted into neural structure.
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 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

The negativity bias
The Negativity Bias
Stone age brains in the 21st century
We can deliberately use the mind
to change the brain for the better.
Positive Neuroplasticity: Taking in the Good
Learning to Take in the Good
Have a Good Experience
The Two Ways
To Have a Beneficial Experience

Notice one you are already having.
- In the foreground of awareness
- In the background

Create one.
Elements of Experience

- **Thoughts** – beliefs; expectations; relationship paradigms; perspectives; appraisals; attributions

- **Perceptions** - sensations; relaxation; vitality

- **Emotions** - both feelings and mood

- **Desires** – values; aspirations; passions; wants

- **Behaviors** - reportoire; inclinations
How to Create A Beneficial Experience

Look for good facts in:

1. Immediate situation
2. Current or recent events
3. Stable conditions
4. Your character
5. The past
6. The future
7. Bad situations
8. The lives of others
9. Your imagination
10. Care about others
11. Directly evoke a beneficial experience
12. Produce good facts
13. Share about good facts with others
Types of Good Facts

- **Events** (e.g., finished a load of laundry, someone was friendly to you, this cookie tastes good)

- **Conditions** (e.g., food, shelter, fresh air, have friends, dog loves you, flowers blooming, ain’t dead yet)

- **Qualities within oneself** (e.g., fairness, decency, determination, good at baking, loving toward kids)
Turning a Good Fact Into a Good Experience

- Bring awareness to your body.
- Soften and open yourself.
- Be a little active in your mind, recognizing aspects of the good fact that naturally elicit an experience.
- Imagine how another person might naturally feel in response to the good fact.
- Have kindness for yourself, encouraging yourself to have a beneficial experience.
Reflections So Far

Noticing and creating an experience are different.

There are lots of ways to create experiences.

Beneficial experiences are usually based on facts.

Recognizing good facts does not deny bad ones.

Good facts about yourself are facts like any other.
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
How to Absorb an Experience

- **Enriching** makes the experience more powerful. **Absorbing** makes memory systems more receptive by priming and sensitizing them.

- Intend and sense the experience is sinking into you.
  - Imagery – Water into a sponge; golden dust sifting down; a jewel into the treasure chest of the heart
  - Sensation – Warm soothing balm

- Giving over to the experience; letting it change you

- Letting go of resisting, grasping, clinging: “craving”
Link Positive and Negative Material
HEAL by Taking in the Good

1. **Have** a positive experience. Notice it 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. [optional]
Have It, Enjoy It
Let’s Try It Again

- **Notice** the experience already present in awareness of some kind of strength... focus, determination, vitality, endurance
  - Have the experience
  - Enrich it
  - Absorb it

- **Create** the experience of goals attained
  - Have the experience - bring to mind a time you finished something large or small... Open to a sense of completion, accomplishment, relief, success...
  - Enrich it
  - Absorb it
It’s Good to Take in the Good

Development of specific inner strengths
- General - resilience, positive mood, feeling loved
- Key resources – For challenges, deficits, wounds

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
The Role of Cultivation

Three fundamental 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 profound, it can be isolated and over-valued in some therapies or spiritual practices.

Skillful means for decreasing the negative and increasing the positive have developed over thousands of years. Why not use them?
Study on the HEAL Process

- With collaborators from the University of California, a 2013 study on the HEAL course, using a randomized waitlist control group design (46 subjects).

- Course participants, compared to the control group, reported more Contentment, Self-Esteem, Satisfaction with Life, Savoring, and Gratitude.

- After the course and at two month follow-up, pooled participants also reported more Love, Compassion, Self-Compassion, Mindfulness, Self-Control, Positive Rumination, Joy, Amusement, Awe, and Happiness, and less Anxiety and Depression.
Combined Sample:
Depression (BDI) & Anxiety (BAI)

Mean Score

Pre-Course  Post-Course  2-Months Later

BDI

BAI
Practical Uses of the HEAL Process
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
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 blocks
Obstructions to Taking in the Good

- General:
  - Distractibility
  - Blocks to self-awareness in general

- Specific:
  - Fears of 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
Adaptations for Children

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

Style:
- Be matter of fact: this is mental/neural literacy.
- A little brain talk goes a long way.
- Be motivating: benefits, “be the boss of your own mind.”
- Down to earth, naturalistic
- Scaffold based on executive functions, motivation, and need for autonomy.
- Brief, concrete
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 of the ways you could use positive neuroplasticity with your clients?
Key Resource Experiences
Our Three Fundamental Needs

- Safety
- Satisfaction
- Connection
Needs Met by Three Systems

Safety – Avoiding harms

Satisfaction – Approaching rewards

Connection – Attaching to others
Pet the Lizard
Feed the Mouse
Hug the Monkey
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
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
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. Regarding yourself (or a client), explore these questions:

What’s an issue?
What inner strength would help?
How to have experiences of this strength?
How to internalize these experiences?
Linking Positive and Negative
Link Positive and Negative Material
Using Memory Mechanisms To Help Heal Painful Experiences

- The machinery of memory:
  - When explicit or implicit memory is re-activated, it is re-built from schematic elements, not retrieved *in toto*.
  - When attention moves on, elements of the memory get re-consolidated.

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

- Activated memory tends to associate with other things in awareness (e.g., thoughts, sensations), esp. if they are prominent and lasting.

- When memory goes back into storage, it takes associations with it.

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

- When you are having a positive experience:
  - Sense the experience sinking down into old pain and deficits, and soothing and replacing them.

- When you are having a negative experience:
  - Bring to mind a positive experience that is its antidote.

- Have the positive experience be prominent while the negative experience is small and in the background.

- You’re not resisting negative experiences or getting attached to positive ones. You’re being kind to yourself and cultivating resources in your mind.
Psychological Antidotes

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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 TG are generally safe. Use them to build resources for tackling the trauma directly.

- As indicated, use the fourth step of TG to address the peripheral features and themes of the trauma.

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

*First of all, do no harm.*
Coming Home
The Homeostatic Home Base

When not invaded by threat, loss, or rejection [no felt deficit or disturbance 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.
But to Cope with Urgent Needs, We Leave Home . . .

When invaded by threat, loss, or rejection [felt deficit or disturbance 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:
- **Fear** (the Avoiding system)
- **Frustration** (the Approaching system)
- **Heartache** (the Attaching system)

This is the brain in allostatic, **Reactive, craving** mode. 

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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

Ignorance
Suffering

Heartache
Attach

Avoid
Harred

Approach
Greed

Wisdom
Contentment

Love
Attach

Avoid
Peace

Approach
Happiness
Positive experiences of core needs met - the felt sense of safety, satisfaction, and connection - activate Responsive mode.

Activated Responsive states can become installed Responsive traits. Responsive traits foster Responsive states.

Responsive states and traits enable us to stay Responsive with challenges.
Peace

Contentment

Love
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
Suggested 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 - 4


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

youtube.com/drrhanson  facebook.com/rickhansonphd