Mindful Cultivation:
Developing Inner Resources For Resilient Well-Being

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Rick Hanson, Ph.D.
Greater Good Science Center
University of California at Berkeley
www.RickHanson.net
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
Sections

1. Positive Neuroplasticity
2. The Green Zone Brain
3. Wholeness, Nowness, Allness
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Positive Neuroplasticity
Mental Resources for Resilient Well-Being
Well-Being

Hedonia

Eudaimonia
Shaping the Course of a Life

Challenges

Vulnerabilities

Resources
Location of Resources

World

Body

Mind
Some Mental Resources

Character Strengths
Secure Attachment
Executive Functions
Positive Mood
Social and Emotional Intelligence
Resilience
Pick a partner and choose an A and a B (A’s go first). Then take turns, with one person speaking while the partner mainly listens, exploring this question:

What psychological resources – inner strengths – do you draw on for a personal challenge?

If you’re alone, reflect or journal.
To a large extent, mental resources are acquired, through emotional, somatic, social, and motivational learning.
Two Wolves in the Heart
Acquiring Mental Resources
Four Learning Curves

Mental Resources

Time

① Decline
Four Learning Curves

1. Decline
2. No growth
Four Learning Curves

1. Decline
2. No growth
3. Linear growth

Y-axis: Mental Resources
X-axis: Time
Four Learning Curves

1. Decline
2. No growth
3. Linear growth
4. Exponential growth; learning how to learn
Mental Resources Are Acquired Through Changes in the Brain
The Neuropsychology Of Learning
Most human learning – healing, growth, transformation – begins with and is shaped by our experiences: immaterial consciousness represented by material neurobiology.

Patterns of mental/neural activity are encoded, consolidated, and reconsolidated into lasting changes of neural structure or function (that may involve other bodily systems).
Neurons that fire together,

wire together.
Major Neural Mechanisms of Learning

(De)Sensitizing existing synapses
Building new synapses
Altered gene expression
Building and integrating new neurons
Altered ongoing activity in a region
Altered connectivity of regions
Altered neurochemical activity
Information from hippocampus to cortex
Modulation by stress hormones, cytokines
Slow wave and REM sleep
Effects of Meditation on the Brain

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

- Reduced cortical thinning with aging in insula and PFC

- Increased activation of left frontal regions, lifting mood

- Increased gamma-range brainwaves – heightened learning and integration

- Preserved telomere length in chromosomes, aiding longevity
Fox, et al., 2016, *Neuroscience and Biobehavioral Reviews*, 65, 208-228
Mental resources are acquired in two stages:

- Encoding ➞ Consolidation
- Activation ➞ Installation
- State ➞ Trait
We become more **compassionate** by repeatedly installing experiences of compassion.

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

We become more **resilient** by repeatedly installing experiences of resilience.
Experiencing doesn’t equal learning.

Activation **without installation** may be pleasant, but no trait resources are acquired.

What fraction of our beneficial mental states leave traces in neural structure?
Professionals and the public are often better at activation than at installation.

This can reduce gains from psychotherapy, coaching, human resources training, mindfulness programs, character education, and self-help activities.
Meanwhile, stressful, painful, harmful experiences are being rapidly converted into lasting changes in neural structure or function.
The Negativity Bias
The Negativity Bias

During the 600 million year evolution of the nervous system, avoiding “sticks” was usually more consequential than getting “carrots.”

1. So we scan for bad news,
2. Over-focus on it,
3. Over-react to it
4. Install it efficiently in memory (incl. implicit),
5. Sensitize the brain to the negative, and
6. Create vicious cycles with others.
Velcro for Bad, Teflon for Good

The negativity bias
The Negativity Bias
The brain is good at learning from bad experiences but relatively bad at learning from good ones.

Even though learning from good experiences of mental resources and related factors grows inner strengths.
How can we increase the conversion rate from positive states to beneficial traits?
Learning How To Learn
Mindful Cultivation: HEAL Process

**Activation**
1. **H**ave a beneficial experience

**Installation**
2. **E**nrich the experience
3. **A**bsorb the experience
4. **L**ink positive and negative material (Optional)
Let’s Try It

Notice
Something beneficial in awareness

Create
Gratitude, gladness

Create
Compassion, kindness

For each of the above:
Have the experience. Enrich it. Absorb it.
Have a Beneficial Experience
1. Have a Beneficial Experience

Experience: a beneficial thought, perception, emotion, desire, action, or blend

**Notice** an experience already present, in the foreground or background of awareness

**Create** an experience, such as:

- Bringing to mind various facts
- Imagining something
- Calling up somatic markers
- Taking action
Two Aspects of Installation

**Enriching:**
- Mind – big, rich, protected experience
- Brain – intensifying and maintaining neural activity

**Absorbing:**
- Mind – intending and sensing that the experience is received into oneself, with related rewards
- Brain – priming, sensitizing, and promoting more effective encoding and consolidation
Enrich It
Factors of Enriching

**Duration** – maintenance, repetition

**Intensity** – arousal

**Multimodality** – multiple aspects of experience

**Novelty** – alertness, sense of freshness, granularity of attention

**Salience** – personal relevance
Multimodality

Thought – meaning, elaboration, metaphor
Perception – interoception
Emotion – valence
Desire – valuing
Action – enacted, shared with others
Factors of Enriching

**Duration** – maintenance, repetition

**Intensity** – arousal

**Multimodality** – multiple aspects of experience

**Novelty** – alertness, sense of freshness, granularity of attention

**Salience** – personal relevance
Absorb It
Factors of Absorbing

**Intend** to internalize the experience (priming).

**Sense** the experience sinking in (sensitizing):
- Imagery – water into sponge, jewel in treasure chest
- Sensation – warm soothing balm spreading inside
- Knowing – “I am becoming a little more _______ .”
- Felt sense of shift – embodied registration of change

**Find rewards** in the experience (promoting encoding and consolidation through dopamine and norepinephrine activity)
Like a Nice Fire
This is the fundamental **how** of “experiential gain” that can be applied to any **what** – any inner resource.

Aspects of Enriching and Absorbing are present in any effective psychotherapy, coaching, etc.

But systematic, explicit guidance for the **installation** phase of learning is uncommon.

And systematic training in the **mental factors** of emotional, somatic, motivational learning is even more rare.
Link Positive & Negative Material
Comments on Linking

This step is optional:
• Not necessary for learning
• Risk of flooding, hijacking by negative material

It is common in everyday life and used widely in psychotherapy and related interventions.

Three conditions:
• Hold two things in awareness
• Keep the positive more prominent
• Drop the negative if it is overwhelming
Degree of Engagement with Negative

- The *idea* of the negative material
- A *felt sense* of the negative material
- The positive material *goes into* the negative material

Throughout, the positive material remains more prominent in awareness.
Have It, Enjoy It
It’s Good to Take in the Good

Develops psychological resources:
- General – resilience, positive mood, feeling loved
- Specific – matched to challenges, wounds, deficits

Has built-in, implicit benefits:
- Training attention and executive functions
- Being active rather than passive
- Treating oneself kindly, that one matters

May sensitize brain to the positive

Fuels positive cycles with others
Keep a green bough in your heart, and a singing bird will come.

Lao Tzu
Helping Others Grow
Inner Resources
Four Ways to Use HEAL with Others

Doing it implicitly

Teaching it and leaving it up to people

Doing it explicitly with people

Asking people to do it on their own
HEAL in Classes and Trainings

Take a few minutes to explain it and teach it.

In the flow, encourage Enriching and Absorbing, using natural language.

Encourage people to use HEAL on their own.

Do HEAL on regular occasions (e.g., at end of a therapy session, at end of mindfulness practice)
Implicit HEAL in Therapy

- Creating space for beneficial experiences
- Drawing attention to beneficial facts
- Encouraging positive experience of beneficial fact
- Drawing attention to key aspects of an experience
- Slowing the client down; not moving on
- Modeling taking in the good oneself
Teach the method

- Background helps about brain, negativity bias
- Emphasize facts and mild beneficial experiences.
- Surface blocks and work through them.
- Explain the idea of “risking the dreaded experience,” noticing the (usually) good results, and taking them in.
Explicit HEAL in Therapy (2)

- Do HEAL with client(s) during a session
  - Reinforcing key resource states and traits
  - Linking rewards to desired thoughts or actions
  - When learning from therapy has worked well
  - When realistic views of self and world come true
  - Good qualities in client
  - New insights

- Encourage HEAL between sessions
  - Naming occasions
  - Identifying key beneficial facts and experiences
Pick a partner and choose an A and a B (A’s go first). Then take turns, with one person speaking while the partner mainly listens, exploring this question:

How do you – and how could you – help people develop inner resources for their challenges?

If you’re alone, reflect or journal.
Green Zone Brain
Pick a partner and choose an A and a B (A’s go first). Then take turns, with one person speaking while the partner mainly listens, exploring this question:

What are some of the **good facts** in your life these days?

As the listener, keep finding a genuine gladness about the good facts in the life of your partner.
Developing Key Inner Resources
What – if it were more present in the mind of a person – would really help with challenges, temperament, or inner wounds or deficits?

How could a person have and install more experiences of these mental resources?
The Evolving Brain

- Cortex ("primate/human")
- Subcortex ("mammalian")
- Brainstem ("reptilian")
- Cerebellum
Our Three Fundamental Needs

- Safety
- Satisfaction
- Connection
Needs Activated by...

**Safety**
- Unpleasant Pain
- Threat

**Satisfaction**
- Pleasant Opportunity
- Loss

**Connection**
- Related Attraction
- Rejection
Needs Met by Three Systems

- **Safety**: Avoiding harms
- **Satisfaction**: Approaching rewards
- **Connection**: Attaching to others
### Needs Feel Met: Responsive Mode

<table>
<thead>
<tr>
<th>Need</th>
<th>Feel</th>
<th>System</th>
<th>Mode</th>
<th>Sense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe</td>
<td>basically</td>
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The Responsive Mode is Home Base

In the **Responsive “green zone,”** the **body** defaults to a sustainable equilibrium of refueling, repairing and recovering.

The **mind** defaults to a sustainable equilibrium of:

- **Avoiding** Peace
- **Approaching** Contentment
- **Attaching** Love

This is the brain in its homeostatic **Responsive, minimal craving** mode.
Can You Stay in the Green Zone With:

- A sense of unpleasant?
- A sense of pleasant?
- A sense of relatedness?
Pet the Lizard
Feed the Mouse
Needs Don’t Feel Met: Reactive Mode

When we feel **unsafe** – disturbed by **threat** – the Avoiding system goes Reactive, with a sense of **fear**.

When we feel **dissatisfied** – disturbed by **loss** – the Approaching system goes Reactive, with a sense of **frustration**.

When we feel **disconnected** – disturbed by **rejection** – the Attaching system goes Reactive, with a sense of **heartache**.
The Reactive Mode is Leaving Home

In the **Reactive “red zone,”** the **body** fires up into the stress response: fight, flight, or freeze; outputs usually exceed inputs; long-term building projects are deferred.

The **mind** fires up into:

- **Avoiding**
  - Fear
- **Approaching**
  - Frustration
- **Attaching**
  - Heartache

This is the brain in its allostatic **Reactive, craving** mode.
Meeting your core needs brings you home to the **Responsive** “green zone.”

Taking in the good Responsive states grows Responsive traits. In a wonderful cycle, these traits promote good states – which can strengthen your Responsive traits.

Responsive states and traits help you stay Responsive when the world is flashing red.
<table>
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Pick a partner and choose an A and a B (A’s go first). Then take turns, with one person speaking while the partner mainly listens, exploring this topic: 

For yourself or another person, pick a specific challenge, identify inner resources matched to it, and then explore how to develop these resources.

If you’re alone, reflect or journal.
## Matching Resources to Needs

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Wider Implications
Repeatedly taking in experiences of safety, satisfaction, and connection develops an increasingly unconditional core sense of fullness and balance, rather than deficit and disturbance.

For individuals, this is the foundation of resilient happiness.
For groups and countries, they could become less vulnerable to the classic manipulations of fear and anger, greed and possessiveness, and “us” against “them” conflicts.
Coming Home

Peace
Contentment
Love
3

Wholeness,
Nowness, Allness
Lateral Networks of Spacious Awareness
Self-Focused (blue) and Open Awareness (red) Conditions (in the novice, pre MT group)

Self-Focused (blue) and Open Awareness (red) Conditions (following 8 weeks of MT)

Ways to Activate Lateral Networks

- Relax.
- Focus on bare sensations and perceptions.
- Sense the body as a whole.
- Take a panoramic, “bird’s-eye” view.
- “Dont-know mind”; release judgments.
- Let experience flow, staying here now.
- Relax the sense of “I, me, and mine.”
Whole Body Awareness

- Involves insula and middle parietal, which integrate sensory maps of the body, plus right hemisphere, for holistic (gestalt) perception

- Practice
  - Sense the breath in one area (e.g., chest, upper lip)
  - Sense the breath as a whole: one gestalt, percept
  - Sense the body as a whole, a whole body breathing
  - Sense experience as a whole: sensations, sounds, thoughts . . . all arising together as one unified thing
In the Present Moment
In the deepest forms of insight, we see that things change so quickly that we can’t hold onto anything, and eventually the mind lets go of clinging.

Letting go brings equanimity. The greater the letting go the greater the equanimity. In [our] practice, we work to expand the range of life experiences in which we are free.

U Pandita
At the Front Edge of Now

- The three neural networks of attention:
  - Alerting
  - Orienting
  - Mobilizing

- Pre-conceptual processing

- Continually letting go
If you let go a little, you will have a little peace.

If you let go a lot, you will have a lot of peace.

If you let go completely, you will be completely peaceful.

Ajahn Chah
Opening into Allness
When we try to pick out anything by itself, we find it hitched to everything else in the universe.

John Muir
Feeling at ease: peace, contentment, love

Tranquil and alert

Aware of the room as a whole, gazing to horizon

Sense of the objective, impersonal; relaxing “self”

Sense of stream of consciousness depending on human culture, the body, life, matter and energy

Recognizing mind as a local rippling of a vast sea of causes, opening into being the sea of allness
Know the mind.

Shape the mind.

Free the mind.
Thank You
New Book from Rick Hanson, Ph.D.

Grow an Unshakable Core of Resilient Well-Being

Learn how to develop key inner strengths to stay calm, confident, and happy no matter what life throws at you.

ORDER YOUR COPY NOW AT RESILIENTHAPPINESS.NET
References
Suggested Books

See RickHanson.net for other good books.

Selected References - 1

See www.RickHanson.net/key-papers/ for other suggested readings.


Selected References - 3

Selected References - 4


Selected References - 5


Supplemental Materials
Promoting Motivation

- Identify what you want to encourage (thought, word, deed); be clear; what would it look like?

- Use HEAL to associate rewards to what you want to encourage:
  - Before doing it
  - While doing it
  - After doing it

- Give over to this new habit, let it carry you along.
In Couples, Benefits of HEAL

- “Installs” key resources that support interactions (e.g., self-soothing, recognition of good intentions)
- Dampens vicious cycles
- Helps partner feel seen, credited for efforts
- Increases the sense of the good that is present
- Reduces clinginess, pursuing, or reproach that the other person withdraws from
Using HEAL with a Couple

- Basic steps (often informal):
  - Attention to a good fact
  - Evoking and sustaining a good experience
  - Managing blocks
  - Awareness of the impact on one’s partner
  - Debriefing, often from both partners

- Pitfalls to avoid:
  - Seeming to side with one person
  - Unwittingly helping a person overlook real issues
  - Letting the other partner pile on
Uses for Children

- Registering curricular skills and other resources
- Motivation for learning; associating rewards
- Seeing the good in the world, others, and oneself – and in the past, present, and future
- Seeing life as opportunity
- Feeling like an active learner
- Developing child-specific inner strengths
Adaptations for Children

- Kids gain from HEAL – particularly 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: name benefits; “be the boss of your own mind.”
  - Down to earth, naturalistic
  - Scaffold based on executive functions, motivation, and need for autonomy.
  - Brief, concrete
Occasions for HEAL with Kids

- Explicit training in positive neuroplasticity
- Natural rhythms in the day (e.g., start of class, after a lesson or recess, end of day)
- When working with an individual child
- When dealing with classroom issues