Positive Neuroplasticity: The Mindful Cultivation Of Durable Inner Resources

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Two Wolves in the Heart
Some Inner Resources

- Mindfulness
- Character Virtues
- Positive Emotions
- Compassion, Love
- Interpersonal Skills
- Patience, Determination, Grit
In the Garden of the Mind

1. Be with what is there
2. Decrease the negative
3. Increase the positive

Let be. Let go. Let in.
Mindfulness is present in all three.

“Being with” is primary – but not enough.
We also need “wise effort.”
Join us for **Cultivating Inner Strength - Monastic Daylong [Dana - No Fee Day]**
with Ayya Anandabodhi and Ayya Santacitta on **Sunday, July 8**
from 9:30 am - 5 pm.

(Photo by Ed Ritger)
Which Means Changing the Brain For the Better
Mental resources are acquired in two stages:

<table>
<thead>
<tr>
<th>Encoding</th>
<th>Consolidation</th>
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<tbody>
<tr>
<td>Activation</td>
<td>Installation</td>
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<tr>
<td>State</td>
<td>Trait</td>
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Key Mechanisms of Neuroplasticity

- (De)Sensitizing existing synapses
- Building new synapses between neurons
- Altered gene expression inside neurons
- Building and integrating new neurons
- Altered activity **in** a region
- Altered connectivity **among** regions
- Changes in neurochemical activity (e.g., dopamine)
- Changes in neurotrophic factors
- Modulation by stress hormones, cytokines
- Slow wave and REM sleep
- Information transfer from hippocampus to cortex
Neurons that fire together,
wire together.
We become more **compassionate** by repeatedly installing experiences of compassion.

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

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We become more **mindful** by repeatedly installing experiences of mindfulness.
What fraction of our beneficial mental states lead to lasting changes in neural structure or function?

**BUT**: Experiencing doesn’t equal learning. Activation *without installation* may be pleasant, but no trait resources are acquired.
We focus more on activation more than installation.

This reduces the gains from psychotherapy, coaching, human resources training, mindfulness programs, and self-help activities.
How can we increase the conversion rate from beneficial states to beneficial traits?
Mindful Cultivation
Turning States into Traits: HEAL

Activation
1. Have a beneficial experience

Installation
2. Enrich the experience
3. Absorb the experience
4. Link positive and negative material (Optional)
Have a Beneficial Experience
Enrich It
Absorb It
Link Positive & Negative Material
Have It, Enjoy It
HEAL with Compassion

Activation
1. **Have** – compassion . . .

Installation
2. **Enrich** – duration . . . embodiment
3. **Absorb** – sinking in . . . rewarding
4. **Link** – caring easing suffering

(Optional)
It’s Good to Take in the Good

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

Has built-in, implicit benefits:
• Training attention and executive functions
• Treating oneself kindly, that one matters

May sensitize the brain to the positive

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

Lao Tzu
Learning is the strength of strengths, since it’s the one we use to grow the rest of them.

Knowing how to learn the things that are important to you could be the greatest strength of all.
Fullness and Balance
Four Ennobling Truths

There is suffering.

As craving increases, so does suffering.

As craving decreases, so does suffering.

There is a path of ending craving.
If craving causes suffering . . . what causes craving?
Craving is embodied.

It arises in relationship to an animal’s needs – including a complicated animal like us.

So, what do we need?
Meeting Our Three Fundamental Needs

- **Safety**
  - Avoiding harms (threat response)

- **Satisfaction**
  - Approaching rewards (goal pursuit)

- **Connection**
  - Attaching to others (social engagement)
When needs feel unmet . . .
not enough safety, satisfaction, or connection . . .
then there is a sense of **deficit** or **disturbance**, something missing or something wrong.

This produces the drive states of “craving” (broadly defined):
• fear, anger, helplessness
• frustration, loss, drivenness
• hurt, resentment, shame
As people acquire resources for a need, the mental/neural systems that manage this need are able to do so without toxic stress — and with the positive thoughts and feelings of capable coping.
Further, internalizing experiences of needs met builds up a sense of fullness and balance – so we can meet the next moment and its challenges feeling already strong, already happy, loving, and at peace.
Cultivation reduces craving.
Wider Implications
As we grow inner resources, we become more able to cope with stress, recover from trauma, and pursue our aims. At the individual level, this is the foundation of resilient well-being.
At the level of groups and countries, people become less vulnerable to the classic manipulations of fear and anger, greed and possessiveness, and “us” against “them” conflicts. Which has big implications for our world.
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
References
Suggested Books

See RickHanson.net for other good books.

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


Suggested References - 2


Suggested References - 3


Suggested References - 4


Supplemental Materials
Meditation experience is associated with increased cortical thickness.

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
Explicit HEAL in Therapy

- 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

- 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
Explicit HEAL in Therapy

- Encourage HEAL between sessions
  - Naming occasions
  - Identifying key beneficial facts and experiences
HEAL and Trauma

- **General considerations:**
  - People vary in their resources and their traumas.
  - Often the major action is with “failed protectors.”
  - Respect “yellow lights” and the client’s pace.

- The first three steps of HEAL are generally safe. Use them to build resources for tackling the trauma directly.

- Use the Link step to address peripheral features and themes of the trauma.

- With care, use Link to get at the heart of the trauma.
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 clinging ness, 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
  - Be 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