Growing Inner Resources
For a Challenging World

ITRC Conference
Preparing People for Climate Change in California
January 24, 2018

Rick Hanson, Ph.D.
Greater Good Science Center
University of California at Berkeley
www.RickHanson.net
The Importance Of Inner Resources
Two Wolves in the Heart
Shaping the Course of a Life

Challenges

Vulnerabilities

Resources
Location of Resources

World

Body

Mind
Some Mental Resources

- Sense of Meaning, Purpose
- Strong Relationships
- Clear Understanding
- Well-Being
- Social and Emotional Skills
- Resilience
The harder a person’s life, the more challenges one has, the less the outer world is helping – the more important it is to develop inner resources.
The majority of our mental resources are acquired, through emotional, somatic, social, and motivational learning.
Which Means Changing the Brain For the Better
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 to face the challenges of climate change?

If you’re alone, reflect or journal.
Acquiring Mental Resources
Neurons that fire together, wire together.
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?
Velcro for Bad, Teflon for Good
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.
The Negativity Bias
Getting Better at Healing and Growing
<table>
<thead>
<tr>
<th><strong>Notice</strong></th>
<th><strong>Create</strong></th>
<th><strong>Create</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>something beneficial in awareness</td>
<td>compassion: effects of climate change</td>
<td>sense of community, connection</td>
</tr>
</tbody>
</table>

**For each of the above:**
Have the experience. Enrich it. Absorb it.
Mindful Cultivation: HEAL Process

**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
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)
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 – and how could – you help others to build inner resources for climate change?

If you’re alone, reflect or journal.
Wider Implications
As we grow inner resources, we become more able to cope with stress, recover from trauma, pursue their aims.

At the individual level, this is the foundation of resilient well-being.
At the level of groups, communities, countries, and the world altogether, people become less vulnerable to the classic manipulations of fear and anger, greed and possessiveness, and “us” against “them” conflicts.
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.

Selected References - 2


Selected References - 3

Selected References - 4


Supplemental Materials
Four Learning Curves

Mental Resources vs. Time

1. Decline
Four Learning Curves

- ① Decline
- ② No growth
Four Learning Curves

- **Decline**
- **No growth**
- **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
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
Learning Factors

Environmental – setting, social support

Behavioral – activities, repetition

Mental – motivation, engagement
# Types of Mental Learning Factors

<table>
<thead>
<tr>
<th>Contextual</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Openness</td>
<td>Personal relevance</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>Alertness, sense of novelty</td>
</tr>
<tr>
<td>View of positive experience</td>
<td>Arousal, enactment</td>
</tr>
<tr>
<td>Growth/learning mindset</td>
<td>Sense of reward</td>
</tr>
<tr>
<td>Motivation</td>
<td>Emotion</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>Granularity of attention</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Interoception</td>
</tr>
<tr>
<td>Feeling supported</td>
<td>Maintenance, repetition</td>
</tr>
<tr>
<td>Sense of safety</td>
<td>Meaning, elaboration</td>
</tr>
</tbody>
</table>


Benefits of Mental Learning Factors

Benefits of both types of factors:

• Increase learning from the present experience
• Prime NS for future beneficial experiences
• Heighten consolidation of past experiences

Engagement factors have additional benefits:

• Regulate experience directly
• Increase initial processes of consolidation
• Are under volitional control
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
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
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)
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.
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.
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.
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
Three Fundamental Needs

- Safety: Avoid Harms
- Satisfaction: Approach Rewards
- Connection: Attach to Others
<table>
<thead>
<tr>
<th>Safety</th>
<th>Satisfaction</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alertness</td>
<td>Gratitude</td>
<td>Empathy</td>
</tr>
<tr>
<td>Grit</td>
<td>Gladness</td>
<td>Compassion</td>
</tr>
<tr>
<td>Resolution</td>
<td>Capabilities</td>
<td>Kindness</td>
</tr>
<tr>
<td>Protections</td>
<td>Restraint</td>
<td>Assertiveness</td>
</tr>
<tr>
<td>Calm</td>
<td>Ambition</td>
<td>Self-worth</td>
</tr>
<tr>
<td>Relaxation</td>
<td>Enthusiasm</td>
<td>Confidence</td>
</tr>
<tr>
<td>Peace</td>
<td>Contentment</td>
<td>Love</td>
</tr>
</tbody>
</table>
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