The Science and Practice Of Resilience

Greater Good Science Center,
March 30, 2018

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Resilience and Well-Being
Resilience is the capacity to recover from adversity and pursue your goals despite challenges.

It helps you survive the worst day of your life and thrive every day of your life.
Lasting well-being in a changing world requires resilience.

Resilience requires mental resources.
Mental Resources Make Us Resilient
Some Mental Resources

Executive Functions
Character Strengths
Secure Attachment
Positive Emotions
Interpersonal Skills
Patience, Determination, Grit
The harder a person’s life, the more challenges one has, the less the outer world is helping – the more important it is to have mental resources.
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:

If you’re alone, reflect or journal.

What psychological resources – **inner strengths** – do you draw on for a personal challenge?
Toxic Stress Impairs Mental Resources
The brain under stress: structural remodeling

- Prefrontal cortex: Atrophy
- Amygdala
- Hippocampus

Hippocampus atrophy

Amygdala, hypertrophy and later atrophy
This accumulation of allostatic load is intensified by the brain’s negativity bias.
As the nervous system evolved, 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. Turn it quickly into (implicit) memory,
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
Mental resources are good, period, plus they’re eroded by the stresses we need them for.

So, how do we get them?

People focus on identifying and using resources such as character strengths – but what about developing them in the first place?
Which Means Changing the Brain For the Better
Acquiring Mental Resources
Half or more of the variation in psychological attributes, including mental resources, is due to non-heritable factors.

This means there are large individual differences in the acquisition of mental resources.
Four Learning Curves

Mental Resources vs. Time

1 Decline
Four Learning Curves

Mental Resources vs. Time

1. Decline
2. No growth
Four Learning Curves

- ① Decline
- ② No growth
- ③ Linear growth
Four Learning Curves

1. Decline
2. No growth
3. Linear growth
4. Exponential growth; learning how to learn

Mental Resources vs. Time
What can people do to steepen their growth curves?
Mental resources are acquired in two stages:

Encoding ➡️ Consolidation
Activation ➡️ Installation
State ➡️ Trait
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.

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

We become more **mindful** by repeatedly installing experiences of mindfulness.
Meditation experience is associated with increased cortical thickness.

Experiencing doesn’t equal learning. Activation **without installation** may be pleasant, but no trait resources are acquired.

What fraction of our beneficial mental states lead to **lasting** changes in neural structure or function?
We tend to focus 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 positive states to beneficial traits?

What learning factors could improve installation?
Steepening Personal Growth Curves
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>
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<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>
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<tr>
<td>Growth/learning mindset</td>
<td>Sense of reward</td>
</tr>
<tr>
<td>Motivation</td>
<td>Emotion</td>
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<tr>
<td>Self-efficacy</td>
<td>Granularity of attention</td>
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<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>
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</table>
Educators have systematically focused on mental factors of academic learning, including teaching them explicitly.

Therapists, coaches, trainers, etc. have generally not systematically focused on mental factors of social, emotional, and somatic learning - and rarely teach these explicitly.
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 volitioonal control
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
Let’s Try It

<table>
<thead>
<tr>
<th>Notice</th>
<th>Create</th>
<th>Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being all right right now</td>
<td>Gratitude, gladness</td>
<td>Compassion, kindness</td>
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**For each of the above:**
Have the experience. Enrich it. Absorb 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
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.
Helping Others Grow
Mental 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
Explicit HEAL in Therapy

• Teach the method
• Do HEAL during the session
• Encourage HEAL between sessions
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.
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
Growing Key Resources
Resilience is required for challenges to our needs.

Understanding the need that is challenged helps us identify, grow, and use the specific mental resource(s) that are best matched to it.
Our Three Fundamental Needs

- Safety
- Satisfaction
- Connection
Meeting Our Three Fundamental Needs

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

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

- **Connection**
  - Attaching to others (social engagement)
The Evolving Brain

- Cortex ("primate/human")
- Subcortex ("mammalian")
- Brainstem ("reptilian")
- Cerebellum
What – if it were more present in the mind of a person – would really help?

How could a person have and install more experiences of these mental resources?
<table>
<thead>
<tr>
<th>Safety</th>
<th>Satisfaction</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>See actual threats</td>
<td>Gratitude</td>
<td>Empathy</td>
</tr>
<tr>
<td>See resources</td>
<td>Gladness</td>
<td>Compassion</td>
</tr>
<tr>
<td>Grit, fortitude</td>
<td>Feel successful</td>
<td>Kindness</td>
</tr>
<tr>
<td>Feel protected</td>
<td>Healthy pleasures</td>
<td>Wide circle of “us”</td>
</tr>
<tr>
<td>Alright right now</td>
<td>Impulse control</td>
<td>Assertiveness</td>
</tr>
<tr>
<td>Relaxation</td>
<td>Aspiration</td>
<td>Self-worth</td>
</tr>
<tr>
<td>Calm</td>
<td>Enthusiasm</td>
<td>Confidence</td>
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**Peace**
- Safety
- Connection

**Contentment**
- Satisfaction
As people acquire resources for a particular 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.
Self-Compassion

- Bring to mind beings who care about you . . . Focus on feeling cared about. . . Use HEAL to take in this experience.

- Bring to mind beings for whom you have compassion . . . Receive the sense of compassion into yourself . . . Know what compassion feels like.

- Be aware of your own burdens, stresses, and suffering – and bring compassion to yourself . . . Get a sense of caring, warmth, support, compassion sinking deeply into you.
Resources for Satisfaction
Feeling Grateful

• Bring to mind some of the things you are thankful for – and open to experiences of gratitude, gladness, happiness . . . Use HEAL to take in these experiences.

• Focus on the sense of having received so much already . . . And if you like, be aware of a sense of frustration or loss off to the side of your mind, while feeling grateful is “big” and in the foreground of awareness . . . Link these two, with a sense of the gratitude easing, soothing, bringing wisdom to, and perhaps even replacing the sense of frustration and loss.
Resources for Connection
It is natural and important to feel that you have worth as a person – which does not mean arrogance or ego.

You develop this sense of worth through:
- Others including, appreciating, liking, and loving you
- You respecting yourself

Take in experiences of being:
- Capable, skillful, talented, helpful
- Included, wanted, sought out
- Appreciated, acknowledged, respected
- Liked, befriended, supported
- Loved, cherished, special
Fullness and Balance
More generally, people commonly experience an underlying sense of deficit and disturbance that produces the “craving” – broadly defined – which causes suffering and harm.

*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, happy, compassionate, and at peace.
Pet the Lizard
Feed the Mouse
Hug the Monkey
Coming Home

Peace

Contentment

Love
As they grow an unshakable core of peace, contentment, and love, 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.


• Dudai, Y. (2004). The neurobiology of consolidations, or, how stable is the engram?. *Annu. Rev. Psychol., 55*, 51-86.


Suggested References - 3


Suggested References - 5


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Supplemental Materials
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
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 clingingness, 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
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
Feeling Strong

• Bring to mind times that you felt strong, determined, enduring . . . Focus on feeling strong . . . Use HEAL to take in this experience.

• Bring to mind someone you are for. Find a sense of support, loyalty, perhaps fierce compassion . . . Know what this feels like – and apply it to yourself . . . Use HEAL to take in this experience.

• Imagine experiencing strength while dealing with a challenge . . . Let the sense of this sink into you.
Aspiration without Attachment

• Differences between stressful drivenness and healthy enthusiasm and determination

• Making your offering. Watering the fruit tree.

• Recognizing that so much is out of your control

• Given over to wholesome purposes