Mental Resources
Mental Resources Support Well-Being

Resilience
Mindfulness
Secure Attachment
Self Regulation
Optimism
Self-Worth
Roughly half to two-thirds of the variation in psychological attributes involves non-heritable factors.

A large fraction of a typical person’s mental resources are acquired – learned – rather than innate.
Mental Resources Are Acquired Through Changes in Nervous System
Mental resources are acquired in two stages:

- Encoding ➔ Consolidation
- Activation ➔ Installation
- State ➔ Trait
Neural Mechanisms of Learning

(De) Sensitizing existing synapses
Building new synapses
Altered gene expression
Building and integrating new neurons
Increased ongoing activity in a brain region
Increased connectivity of brain regions
Altered neurochemical activity
Information transfer from hippocampus to cortex
Modulation by stress hormones and cytokines
Slow wave and REM sleep
Neurons that fire together, wire together.
Inner strengths are developed through experiences of them or related factors – activated states – that are installed as traits.
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.
Steepening Personal Growth Curves
Experiencing doesn’t equal learning.

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

What fraction of our beneficial mental states ever become neural structure?
Meanwhile, stressful, painful, harmful experiences are being rapidly converted into lasting changes in neural structure or function.
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.
How stress changes the brain
Velcro for Bad, Teflon for Good

The negativity bias
The Negativity Bias
Professionals and the public are generally good at activation but bad at installation.

This is the fundamental weakness – and opportunity – in much coaching, psychotherapy, human resources training, and mindfulness programs.
The same research that proves therapy works shows no improvement in outcomes over the last 30 or so years.

Scott Miller, Ph.D.
Four Learning Curves

- Decline

Mental Resources vs. Time
Four Learning Curves

- 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**
How can we increase the conversion rate from positive states to beneficial traits?
Learning Factors

Environmental – setting, social support

Behavioral – activities, repetition

Mental – motivation, engagement
Learning How To Learn
Have a Beneficial Experience
Enrich It
Absorb It
Like a Nice Fire
Link Positive & Negative Material
Neuropsychology of Learning

**Activation**

1. Have a beneficial experience.

**Installation**

2. Enrich it.
3. Absorb it.
4. Link positive and negative material. (Optional)
Have It, Enjoy It
Key Resources for Fundamental Needs
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
Satisfaction — Approach
Connection — Attach
When Needs Feel Met

When there is a core sense of needs met – of **fullness** and **balance** – the brain defaults to its homeostatic resting state.

The body conserves resources, recovers from stress, refuels, and repairs itself.

In terms of safety, satisfaction, and connection, the mind is colored by a sense of **peace**, **contentment**, and **love**.

This is the body, brain, and mind in its Responsive mode – the “**Green Zone.**”
When there is a core sense of needs unmet – of **deficit** and **disturbance** – the brain is perturbed into an allostatic drive state ("craving").

The body burns resources, agitates its systems, halts long-term building, and accumulates stress load.

In terms of safety, satisfaction, and connection, the mind is colored by a sense of fear and anger, frustration and drivenness, and hurt and aggression.

This is the body, brain, and mind in its Reactive mode – the "**Red Zone.**"
People have long asked, what is human nature? We have two natures: Responsive and Reactive.

The Reactive mode helped our species evolve in harsh settings, and may sometimes be needed today.

But most of the time, our Stone Age brain in the Red Zone causes much suffering, health problems, and conflict, even war.
## Matching Resources to Needs

<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>
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<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>
Pet the Lizard
Feed the Mouse
Hug the Monkey
Societal 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.
At the level of groups and countries, with a stable internal sense of fullness and balance, of fundamental needs already met, people are less vulnerable to fear and anger, greed and possessiveness, and “us” against “them” conflicts.
Keep a green bough in your heart, and a singing bird will come.

Lao Tzu
References
Selected References - 1

See [www.RickHanson.net/key-papers/](http://www.RickHanson.net/key-papers/) for other suggested readings.

Selected References - 2


Selected References - 5

Selected References - 6

Supplemental Materials
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.”
Four Ways to Offer a Method

Doing it implicitly

Teaching it, leaving it up to others

Doing it explicitly with people

Asking people to do it on their own
HEAL in Trainings, Programs

- Explain it and teach it early on
- In the flow, encourage Enriching and Absorbing, using natural language
- Encourage people to use HEAL on their own to deepen learning
- Build in explicit internalization of beneficial experiences
<table>
<thead>
<tr>
<th>Distal</th>
<th>Proximal</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 pos. exper.</td>
<td>Arousal</td>
</tr>
<tr>
<td>Growth/Lrng mindset</td>
<td>Valence, valuing, 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>
<tr>
<td></td>
<td>Imagery, metaphor</td>
</tr>
<tr>
<td></td>
<td>Enacted, shared with others</td>
</tr>
</tbody>
</table>
Benefits of Mental Learning Factors

Benefits of both types of learning factors:
• Increase learning from present experience
• Prime NS for future beneficial experiences
• Heighten consolidation of past experiences

Proximal factors have additional benefits:
• Regulate experience directly
• Increase initial processes of consolidation
• Are under volitional control
RESOURCES FOR AVOIDING HARMS

**Challenge**
- Weakness
- Helplessness
- Freezing, immobilization
- Inflated threats
- Alarm
- Tension
- Worry, fear
- Irritation, anger

**Resource**
- Strength
- Agency
- Action, venting
- Accurate appraisal
- Protection, calming
- Relaxation
- Feeling alright now, making a plan
- Big picture, peace
# Resources for Approaching Rewards

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>What I don’t have</td>
<td>What I do have</td>
</tr>
<tr>
<td>Scarcity</td>
<td>Enoughness, fullness</td>
</tr>
<tr>
<td>Disappointed, sad</td>
<td>Gratitude, gladness</td>
</tr>
<tr>
<td>Frustration, failure</td>
<td>Accomplishment</td>
</tr>
<tr>
<td>Bored, numb</td>
<td>Pleasure, excitement</td>
</tr>
<tr>
<td>Grief</td>
<td>Loved and loving</td>
</tr>
<tr>
<td>Giving up</td>
<td>Aspire, lived by good</td>
</tr>
<tr>
<td>Drivenness</td>
<td>Already satisfied</td>
</tr>
<tr>
<td>Challenge</td>
<td>Resource</td>
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<tr>
<td>-------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Left out, excluded</td>
<td>Belonging, wanted</td>
</tr>
<tr>
<td>Inadequacy, shame</td>
<td>Appreciated, respected</td>
</tr>
<tr>
<td>Ignored, unseen</td>
<td>Receiving empathy</td>
</tr>
<tr>
<td>Lonely</td>
<td>Friendship, caring</td>
</tr>
<tr>
<td></td>
<td>to others and oneself</td>
</tr>
<tr>
<td>Resentment</td>
<td>Recognize it hurts you</td>
</tr>
<tr>
<td>Envy, jealousy</td>
<td>Self-compassion, take action,</td>
</tr>
<tr>
<td></td>
<td>good will</td>
</tr>
<tr>
<td>Feeling stifled</td>
<td>Skillful assertiveness</td>
</tr>
</tbody>
</table>