

Positive Neuroplasticity: Growing Mental Resources For Resilient Well-Being



Jeff Weisz, MD Wellness Conference
April 28, 2017

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Mental Resources for Resilient Well-Being

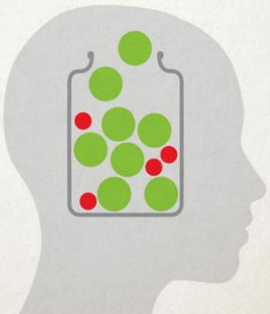
Some Mental Resources

- Grit
- Mindfulness
- Secure Attachment
- Self Regulation
- Optimism
- Self-Worth

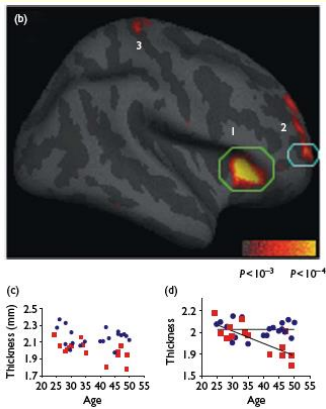
Roughly half to two-thirds of the variation in psychological attributes involves non-heritable factors.

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



Lazar, et al. 2005. Meditation experience is associated with increased cortical thickness. *Neuroreport*, 16, 1893-1897.



Mental resources
are acquired in two stages:

Encoding > Consolidation

Activation > Installation

State > Trait



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.

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.

How can we increase the conversion rate from positive states to beneficial traits?

Learning How To Learn

Mindful Cultivation: HEAL Process

Activation

1. **Have** a beneficial experience.

Installation

2. **Enrich** it.
3. **Absorb** it.
4. **Link** positive and negative material.
(Optional)

Let's Try It

Notice that you are relaxing as you exhale:

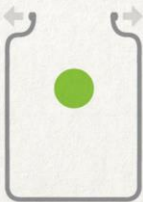
- Foreground the experience in awareness
- Stay with it; open to it in your body; keep it fresh
- Be mindful of what is rewarding; sense it sinking in

Create an experience of compassion:

- Wish that beings not suffer, with warm concern
- Let it pervade the mind; find personal relevance
- Give over to it; imagine it spreading inside you



Have a Beneficial Experience



Enrich It

Factors of Enriching

Duration – maintenance, repetition

Intensity – arousal

Multimodality – multiple aspects of experience

Novelty – alertness, sense of freshness, granularity of attention

Saliency – personal relevance



Absorb It

Factors of Absorbing

Intend to internalize the experience (priming).

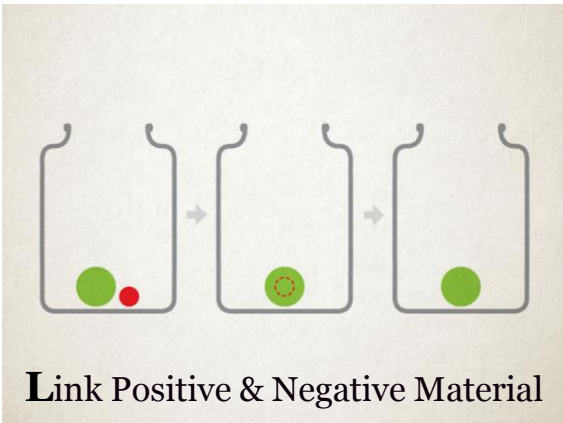
Sense the experience sinking in (sensitizing):

- 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)

Like a Nice Fire





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



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

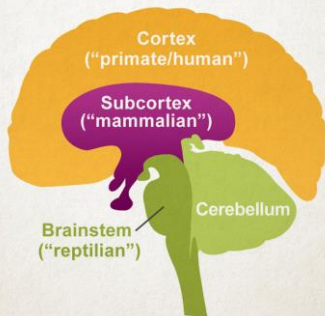
Fuels positive cycles with others

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



Three Fundamental Needs



Safety



Satisfaction



Connection

Matching Resources to Needs

Safety	Satisfaction	Connection
Alertness	Gratitude	Empathy
Grit	Gladness	Compassion
Resolution	Capabilities	Kindness
Protections	Restraint	Assertiveness
Calm	Ambition	Self-worth
Relaxation	Enthusiasm	Confidence
Peace	Contentment	Love

Using HEAL With Others

The Four Ways to Offer a Method

- 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)



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

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Supplemental Materials

Major Neural Mechanisms of Learning

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

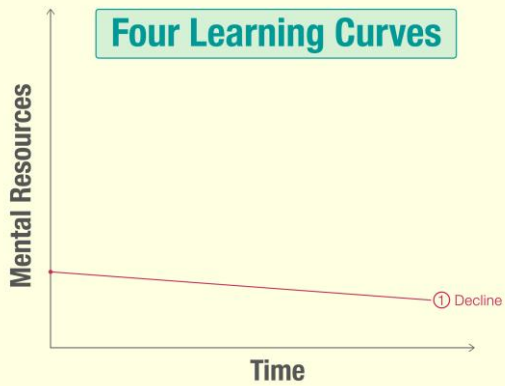
Most experiences of inner strengths – resilience, kindness, insight, mindfulness, self-worth, love, etc. – are **enjoyable**.

Positive hedonic tone is thus often a marker of an opportunity to develop a psychological resource.

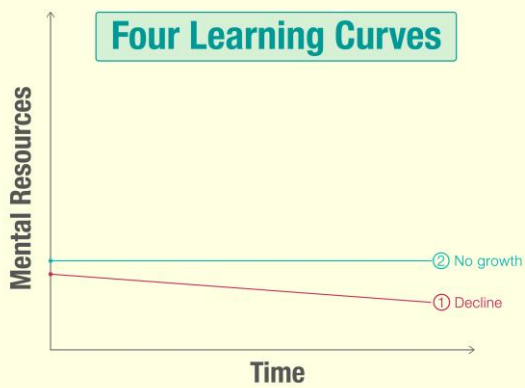
The same research that proves therapy works shows no improvement in outcomes over the last 30 or so years.

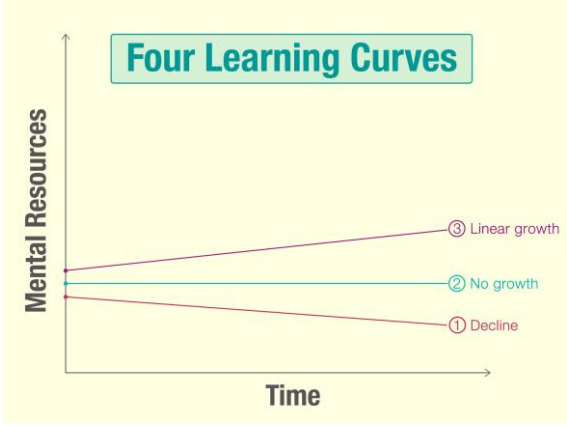
Scott Miller, Ph.D.

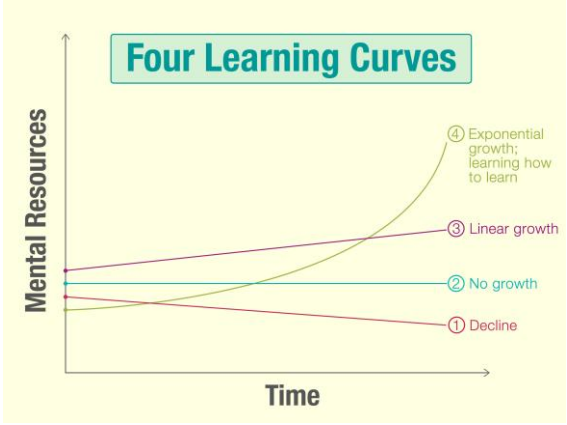
Four Learning Curves



Four Learning Curves







Learning Factors

Environmental – setting, social support

Behavioral – activities, repetition

Mental – motivation, engagement

Types of Mental Learning Factors

Contextual

Openness
Mindfulness
View of positive experience
Growth/learning mindset
Motivation
Self-efficacy
Self-esteem
Feeling supported
Sense of safety

Engagement

Personal relevance
Alertness, sense of novelty
Arousal, enactment
Sense of reward
Emotion
Granularity of attention
Interoception
Maintenance, repetition
Meaning, elaboration

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

This is the fundamental **how** of “experiential gain” that can be applied to any **what** – any psychological resource (including the results of healing) that a person would like to grow.

Aspects of Enriching and Absorbing are present in any effective psychotherapy, coaching, human resources training, and mindfulness program.

But during these, systematic, explicit guidance for the **installation** phase of learning is rare.

And there has been no systematic training in the mental factors of emotional, somatic learning.

Pilot Study on a Training in Mental Factors of Learning

Randomized waitlist control group study of the “Taking in the Good Course”

Six 3-hour classes over 7 weeks; 46 subjects; not yet peer-reviewed

Compared to controls, participants reported more Contentment, Self-Esteem, Satisfaction with Life, Savoring, and Gratitude.

After the course and at 2-month follow-up, pooled participants reported less Anxiety and Depression, and more Love, Compassion, Self-Compassion, Mindfulness, Self-Control, Positive Rumination, Joy, Amusement, Awe, and Happiness.

When core needs feel unmet, the sense of deficit or disturbance triggers a drive state with associated negative emotions.

This is the neuropsychology of “craving,” broadly defined – a brain in the Red Zone.

While normal, Red Zone activation creates personal health burden and suffering.

At the level of groups and societies, Red Zone activation causes or worsens much tension and conflict, even war.

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.

Resources for Avoiding harms

<u>Challenge</u>	<u>Resource</u>
Weakness	Strength
Helplessness	Agency
Freezing, immobilization	Action, venting
Inflated threats	Accurate appraisal
Alarm	Protection, calming
Tension	Relaxation
Worry, fear	Feeling alright now, making a plan
Irritation, anger	Big picture, peace ⁶⁴

Resources for Approaching rewards

<u>Challenge</u>	<u>Resource</u>
What I don't have	What I <u>do</u> have
Scarcity	Enoughness, fullness
Disappointed, sad	Gratitude, gladness
Frustration, failure	Accomplishment
Bored, numb	Pleasure, excitement
Grief	Loved and loving
Giving up	Aspire, lived by good
Drivenness	Already satisfied ⁶⁵

Resources for attaching to others

<u>Challenge</u>	<u>Resource</u>
Left out, excluded	Belonging, wanted
Inadequacy, shame	Appreciated, respected
Ignored, unseen	Receiving empathy
Lonely	Friendship, caring to others <u>and</u> oneself
Resentment	Recognize it hurts <u>you</u>
Envy, jealousy	Self-compassion, take action, good will
Feeling stifled	Skillful assertiveness ⁶⁶
