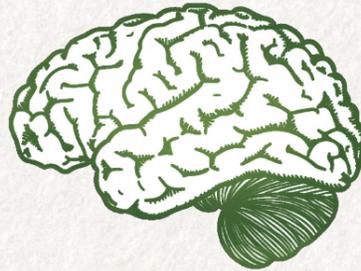


# The Unshakable Core: Growing Embodied Resilience In a Turbulent World



FACES Mindfulness, Compassion, and Wisdom  
San Diego, March 8, 2019

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Greater Good Science Center  
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[www.RickHanson.net](http://www.RickHanson.net)

# What We'll Explore

1. Positive Neuroplasticity
2. The Green Zone Brain
3. Calm Strength
4. Grateful Contentment
5. Loved and Loving



1

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# Positive Neuroplasticity

# Some Mental Resources

Character Strengths

Secure Attachment

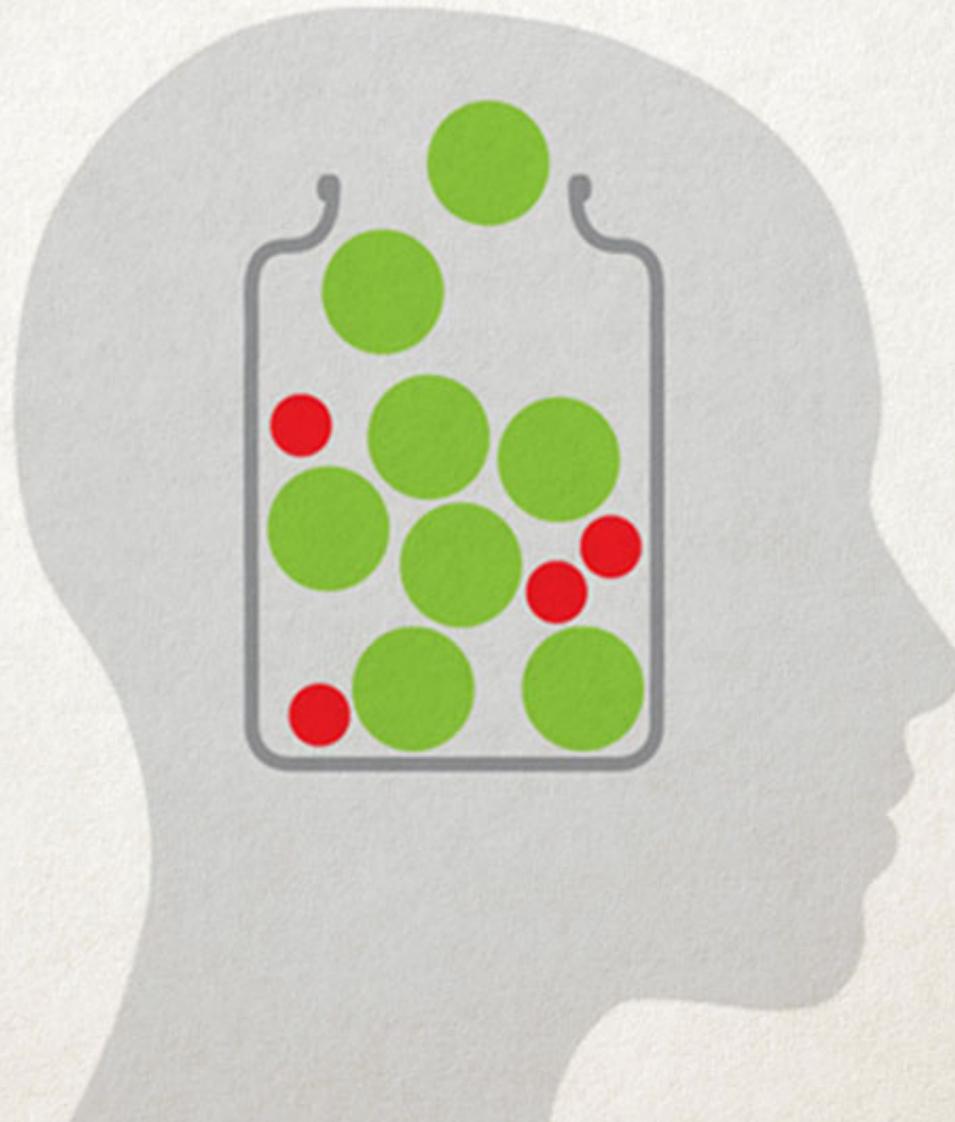
Executive Functions

Positive Mood

Social and Emotional Intelligence

Resilience

# Mental Resources Are Acquired Through Changes in the Brain



A network of glowing yellow neurons with a central neuron highlighted in green. The neurons are interconnected by a dense web of thin, yellow, fiber-like structures. The central neuron has a bright green nucleus and is surrounded by a network of yellow fibers. The background is dark, making the glowing neurons stand out.

Neurons that fire together,

wire together.

**Mental resources**  
are acquired in two stages:

Encoding > Consolidation

Activation > Installation

State > Trait

**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

bad experiences

good experiences

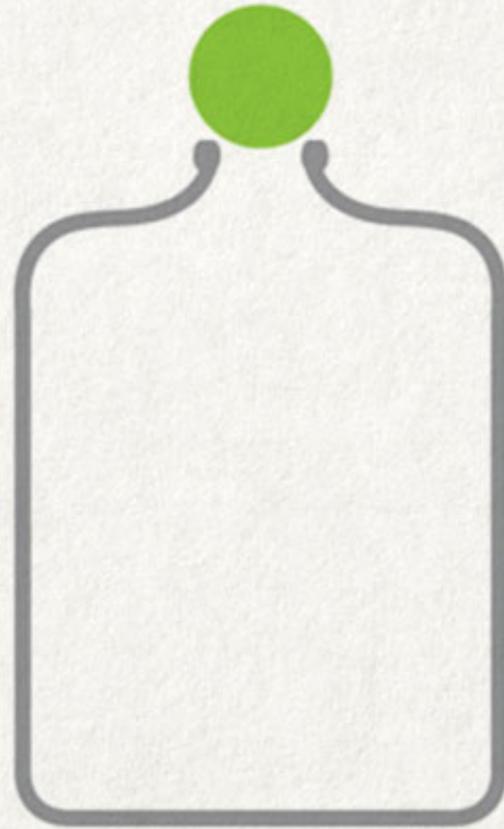
# Mindful Cultivation: HEAL Process

## Activation

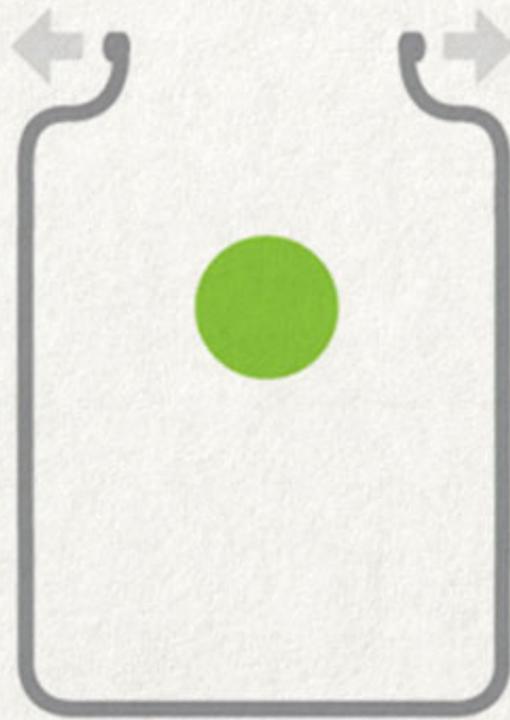
1. Have a beneficial experience

## Installation

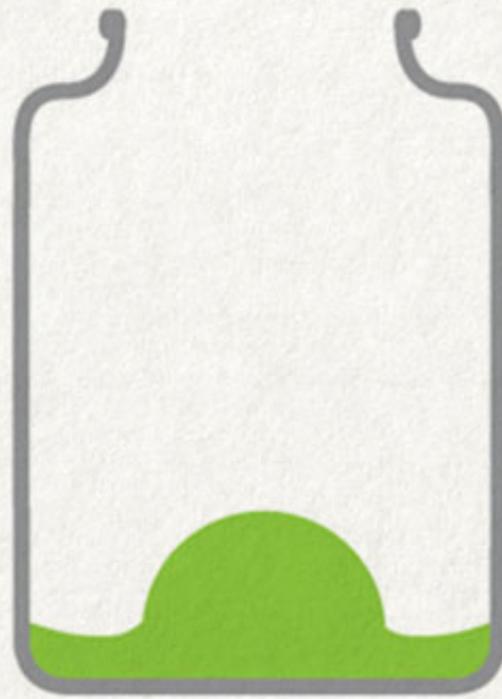
2. Enrich the experience
3. Absorb the experience
4. Link positive and negative material  
(Optional)



**H**ave a Beneficial Experience



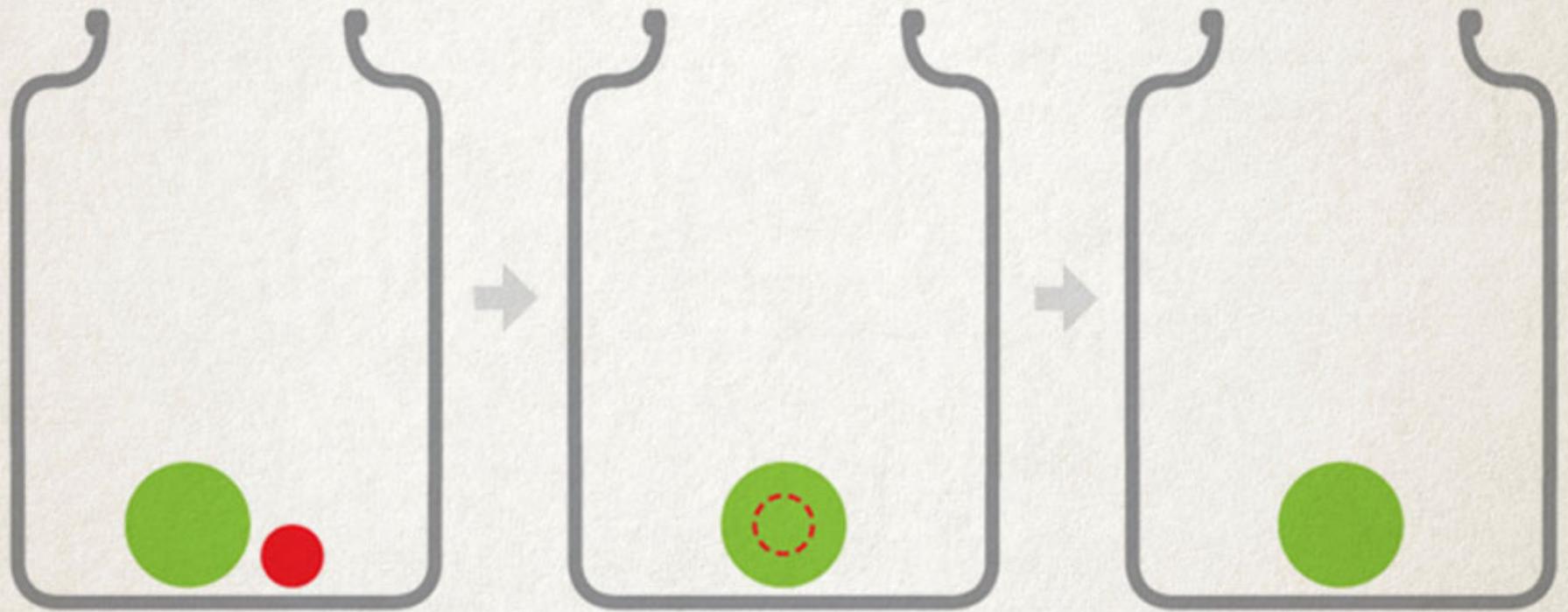
**E**nrich It



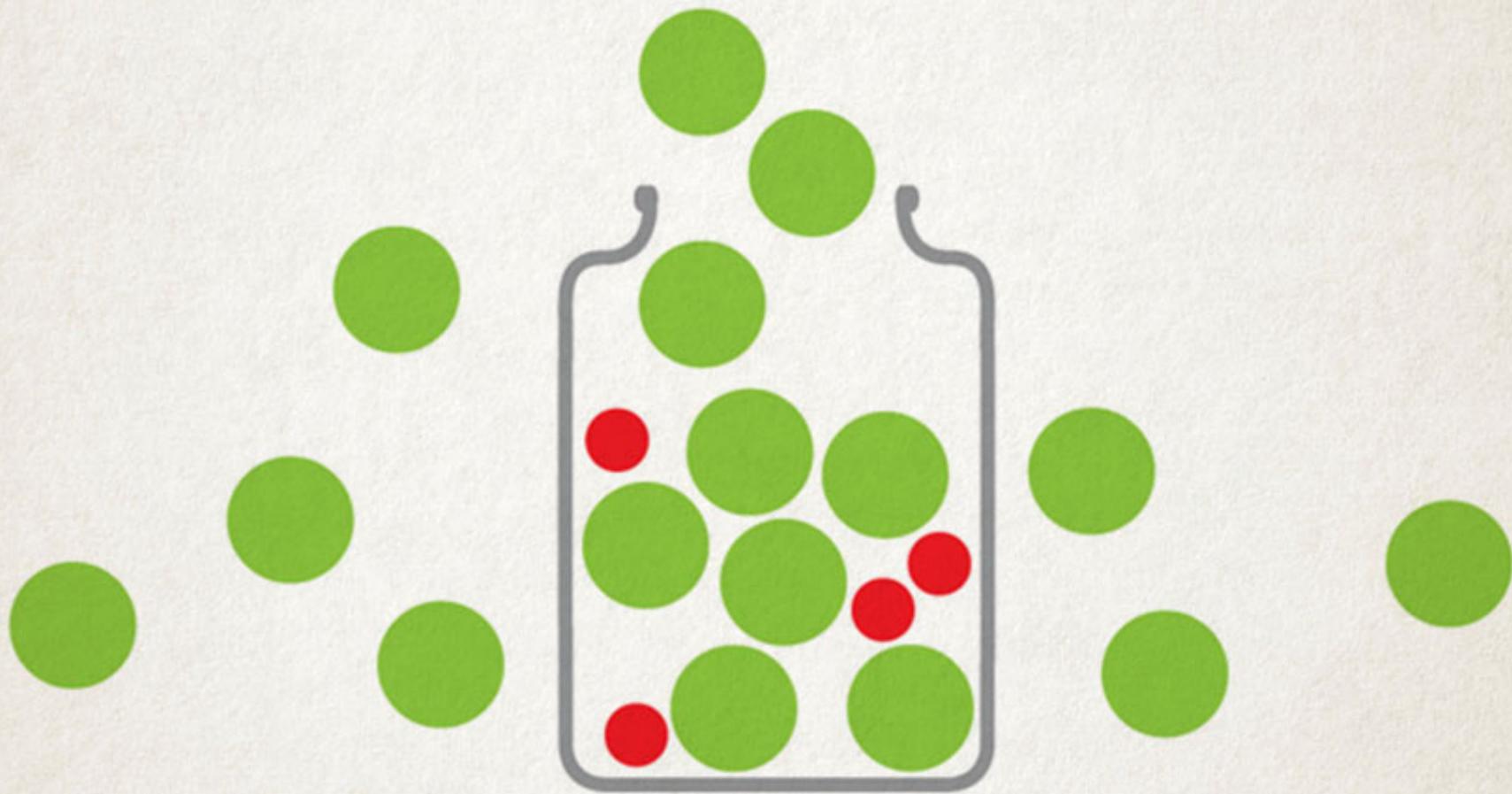
**A**bsorb It

# Like a Nice Fire





**Link Positive & Negative Material**

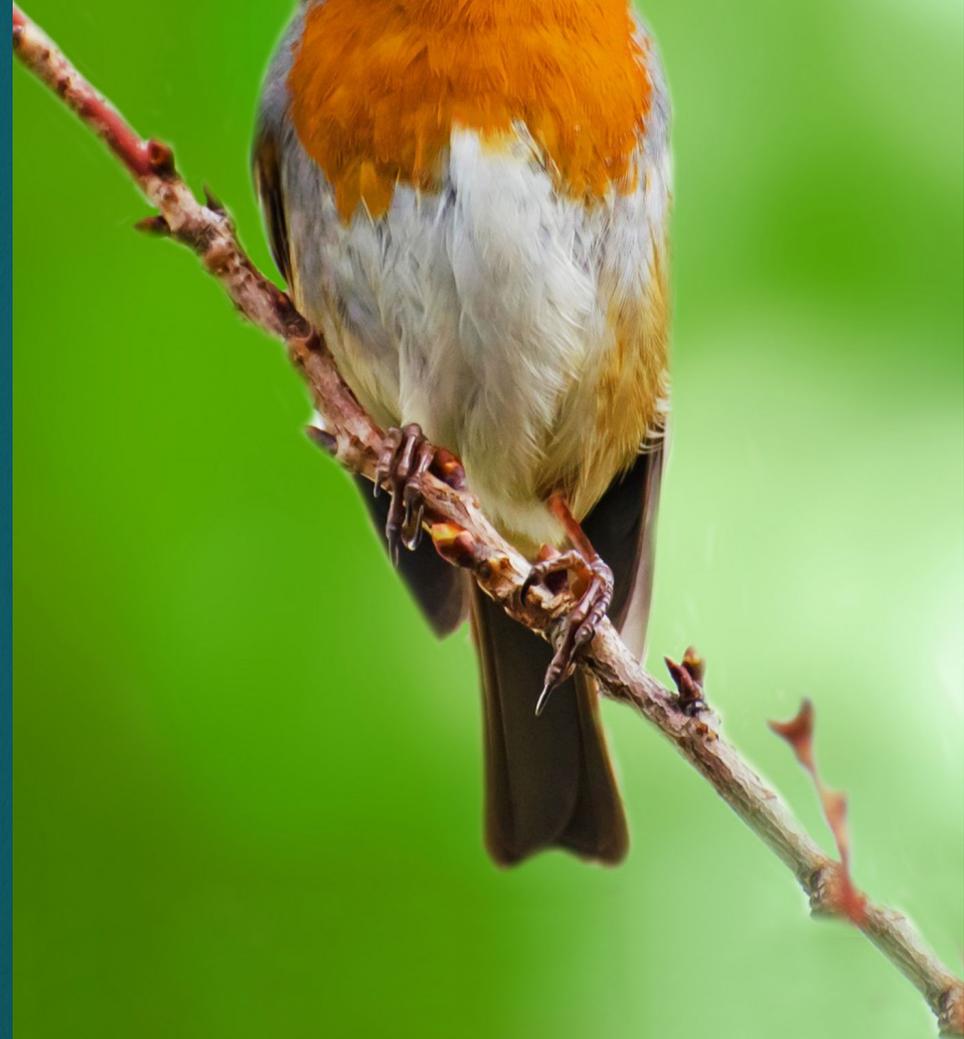


Have It, Enjoy It

”

*Keep a green bough  
in your heart,  
and a singing bird  
will come.*

**Lao Tzu**

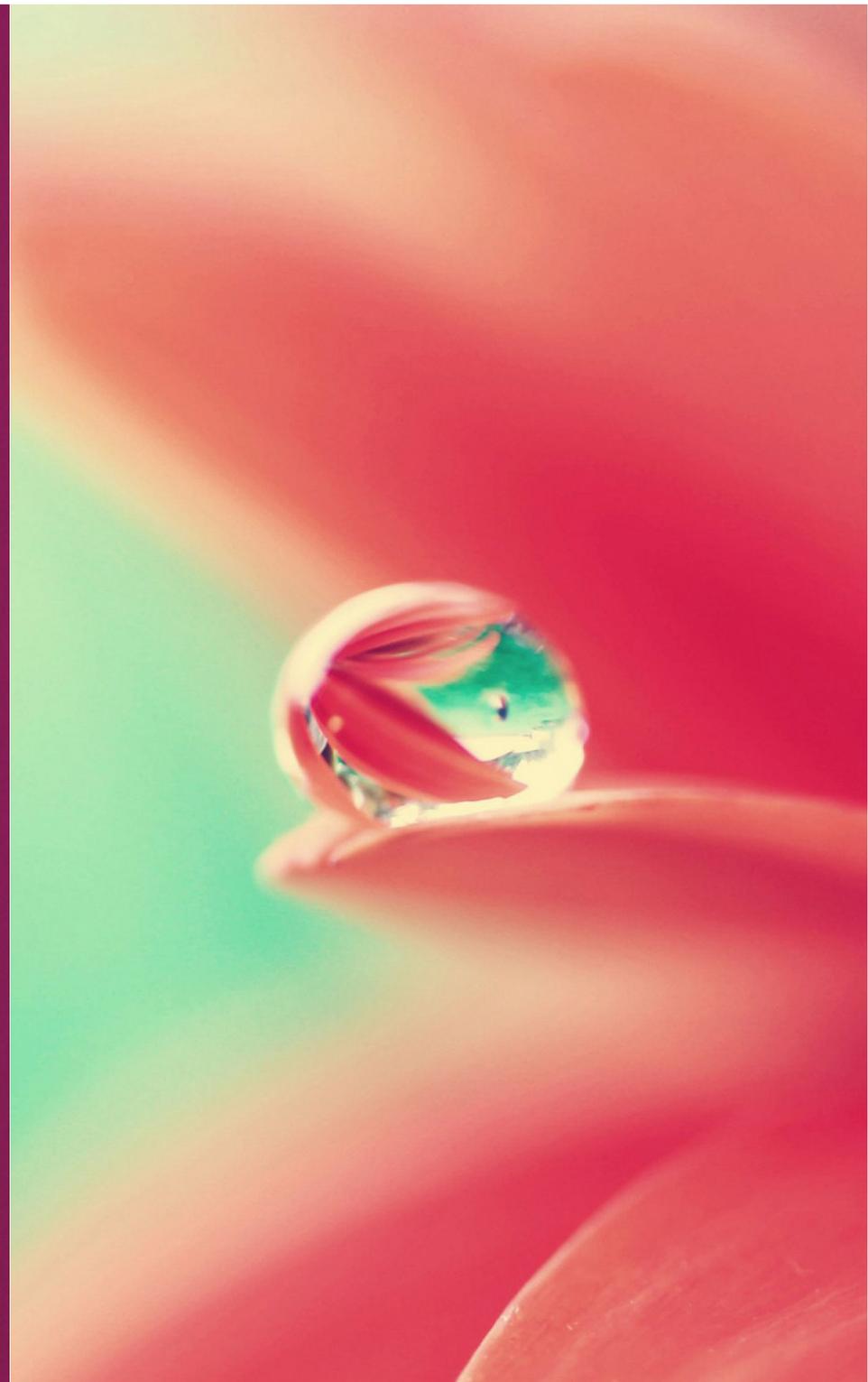


*Think not lightly of good,  
saying,  
“It will not come to me.”*

*Drop by drop is  
the water pot filled.*

*Likewise, the wise one,  
Gathering it little by little,  
Fills oneself with good.*

**Dhammapada 9.122**





2

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# Green Zone Brain

# Our Three Fundamental Needs



**safety**



**satisfaction**



**connection**

# Needs Met by Three Systems



**Safety**

**Avoiding  
harms**



**Satisfaction**

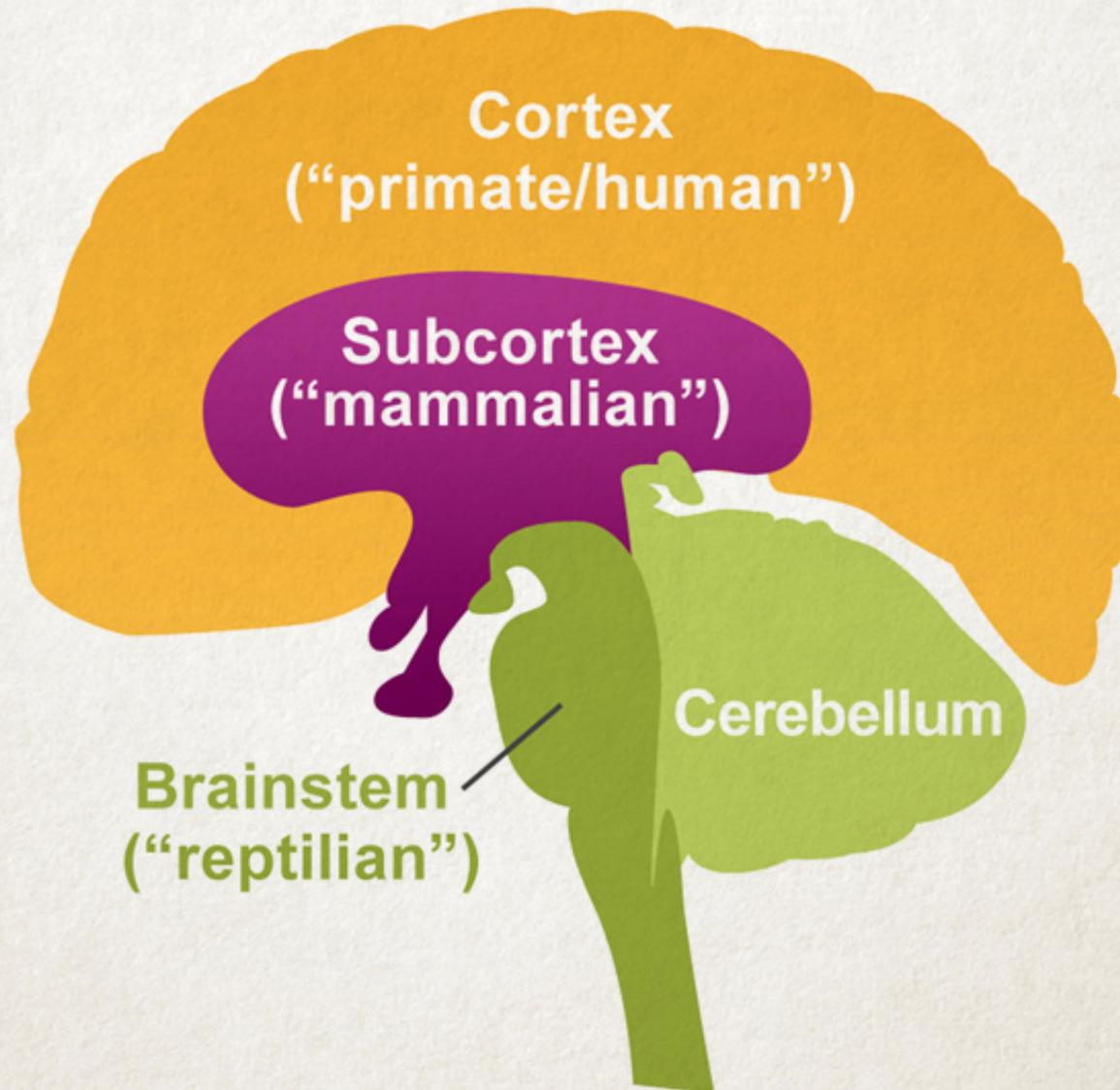
**Approaching  
rewards**



**Connection**

**Attaching  
to others**

# The Evolving Brain



# Growing Inner Resources for Needs

## **Safety**

**Alertness**  
**Grit**  
**Resolution**  
**Protections**  
**Calm**  
**Relaxation**

## **Peace**

## **Satisfaction**

**Gratitude**  
**Gladness**  
**Capabilities**  
**Restraint**  
**Ambition**  
**Enthusiasm**

## **Contentment**

## **Connection**

**Empathy**  
**Compassion**  
**Kindness**  
**Assertiveness**  
**Self-worth**  
**Confidence**

## **Love**

With resilience,  
we meet challenges to needs  
in the **Green Zone**:  
with fullness and balance,  
and peace, contentment, and love.

Without resilience,  
challenges push us into the **Red Zone**:  
with deficit and disturbance,  
and fear, frustration, and heartache.

# Can You Stay in the Green Zone With:

A sense of  
unpleasant?

A sense of  
pleasant?

A sense of  
relatednes?

Repeatedly taking in experiences of safety, satisfaction, and connection

develops an increasingly unconditional core sense of fullness and balance, rather than deficit and disturbance.

# Pet the Lizard



# Feed the Mouse



# Hug the Monkey



# Coming Home

**Peace**

**Contentment**

**Love**



3

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**Calm Strength**

# Growing Inner Resources for Needs

## **Safety**

**Alertness**  
**Grit**  
**Resolution**  
**Protections**  
**Calm**  
**Relaxation**

## **Peace**

## **Satisfaction**

**Gratitude**  
**Gladness**  
**Capabilities**  
**Restraint**  
**Ambition**  
**Enthusiasm**

## **Contentment**

## **Connection**

**Empathy**  
**Compassion**  
**Kindness**  
**Assertiveness**  
**Self-worth**  
**Confidence**

## **Love**

# Calming the Visceral Core

- A brief explanation of heartrate variability
- Relax.
- Gently lengthen exhalations . . . As long as or longer than inhalations . . . Then letting breathing be soft and natural.
- Bring attention into the chest and area of the heart.
- Be aware of heartfelt feelings . . . Perhaps love flowing in and flowing out in rhythm with the breath.

# Feeling Alright Right Now

- Aware of the body going on being . . . Enough air to breathe . . . The heart beating fine . . . Basically alright . . . Now
- You may not have been basically alright in the past and you may not be basically alright in the future . . . But now you are OK . . . Still basically OK . . . Now
- Letting go of unnecessary anxiety, guarding, bracing
- Reassurance, relief, calming is sinking into you . . . Still basically alright . . . Now

# Feeling Strong

- Bring to mind times that you felt strong, determined, enduring . . . Focus on feeling strong . . . Take in this experience.
- Imagine experiencing strength while dealing with a challenge . . . Let the sense of this sink into you.



4

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# Grateful Contentment



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 are some of the good facts in your life these days?

As the listener, keep finding a genuine gladness about the good facts in the life of your partner.

or journal.

# Gratitude and Gladness

- Bring to mind some of the things you have received and are thankful for . . . Good fortune, the kindness of others, the gift of life . . . The universe itself . . . Letting gratitude sink into you and spread inside you.
- Bring to mind some of the things you are glad about . . . Happy times with friends, challenges put behind you, recent successes, good things happening for others . . . Letting gladness sink into you and spread inside you.

# Enoughness Already

- Focus on the sense of having received so much already . . .
- Get a sense of the fullness in the present moment . . .  
So much texture, so many sensations, sights, thoughts, feelings . . . Almost overwhelming, why seek anything more . . .
- Find a contentment in the moment as it is, moment after moment . . . Not wishing it to be different than it is . . . Drivenness and grasping and discontent falling away . . . Already satisfied.



**5**

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**Loved and Loving**

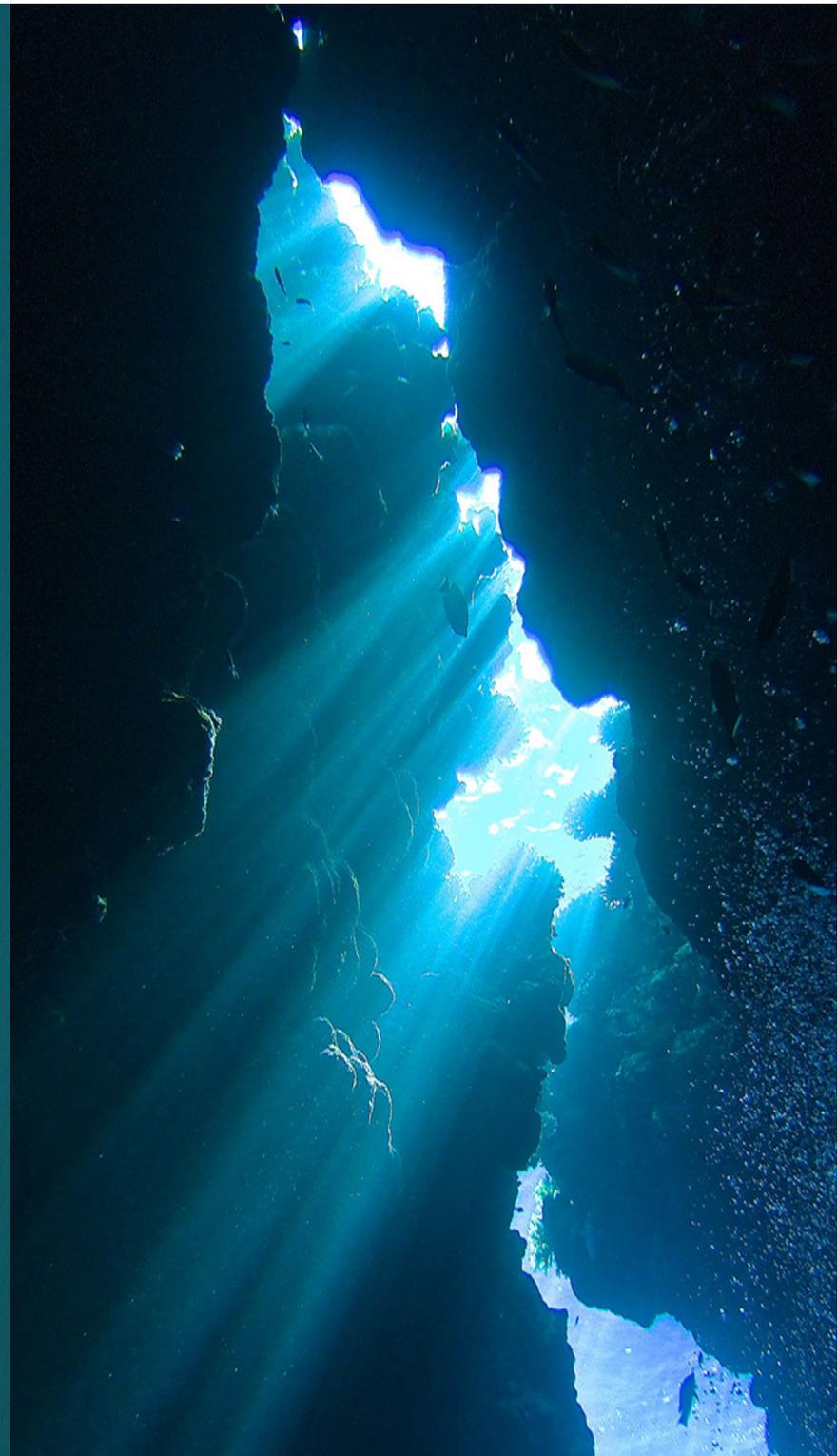
# Self-Compassion

- 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.

# “Anthem”

*Ring the bells that still can ring  
Forget your perfect offering  
There is a crack in everything  
That's how the light gets in  
That's how the light gets in*

**Leonard Cohen**



# Forgiving Others and Yourself

- Two levels of forgiveness: disentangling yourself . . . and a full pardon. In both there can be a recognition of wrongdoing and a valuing of justice.
- Disentangling involves standing up for yourself while not feeding resentments and grievances, and deliberately releasing the charge on what happened.
- A full pardon involves compassion, a recognition of the many causes of what happened, a release of punishment, and a full letting go.

# Feeling of Worth

- 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

# A Confident Heart

- Feeling caring . . . And cared about.
- Stepping back and seeing yourself objectively . . .  
Recognizing your capabilities . . . Your good intentions . . . What you have been through and dealt with and overcome.
- Finding the respect for yourself that you would have for a person just like you . . . Letting go of needing to prove yourself or impress anyone . . .  
Recognizing your decency and efforts . . . Your good heart . . .

# Thank You



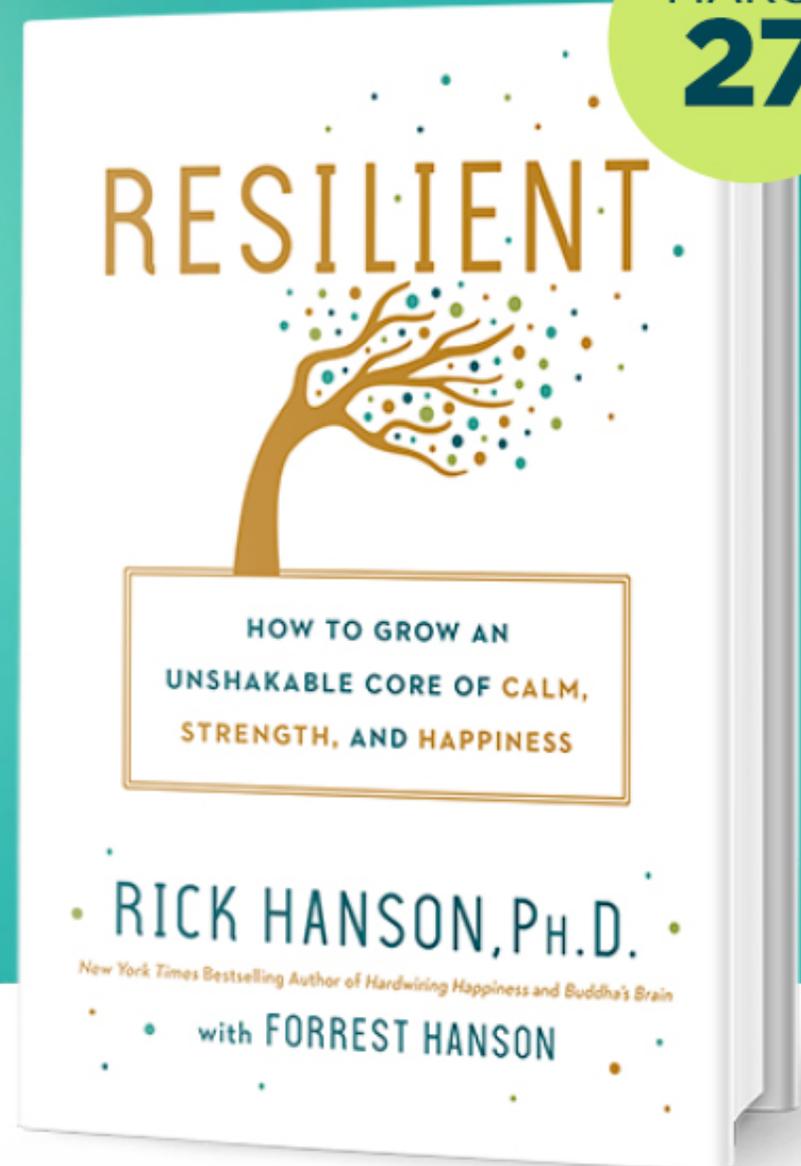
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**Unshakable Core**  
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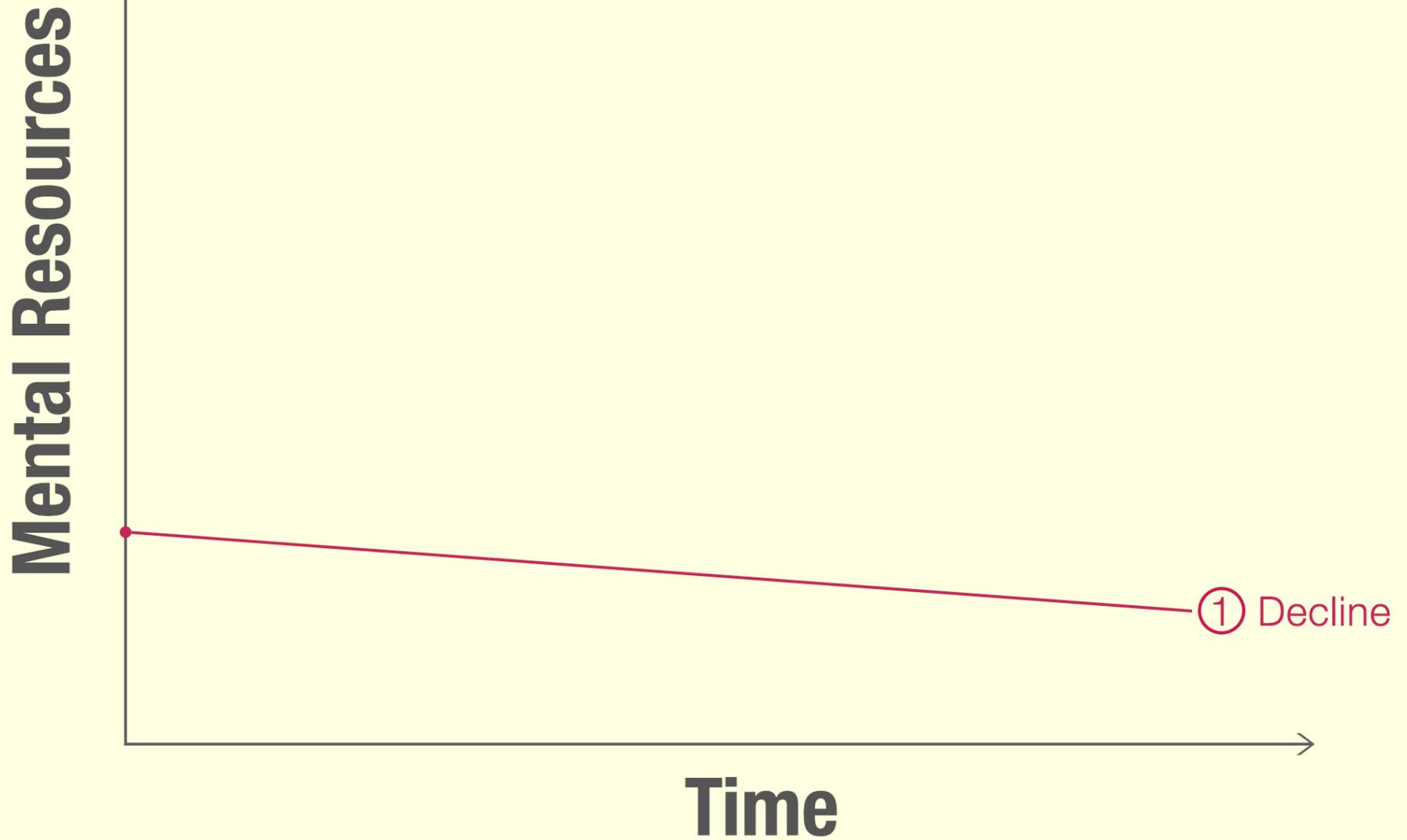
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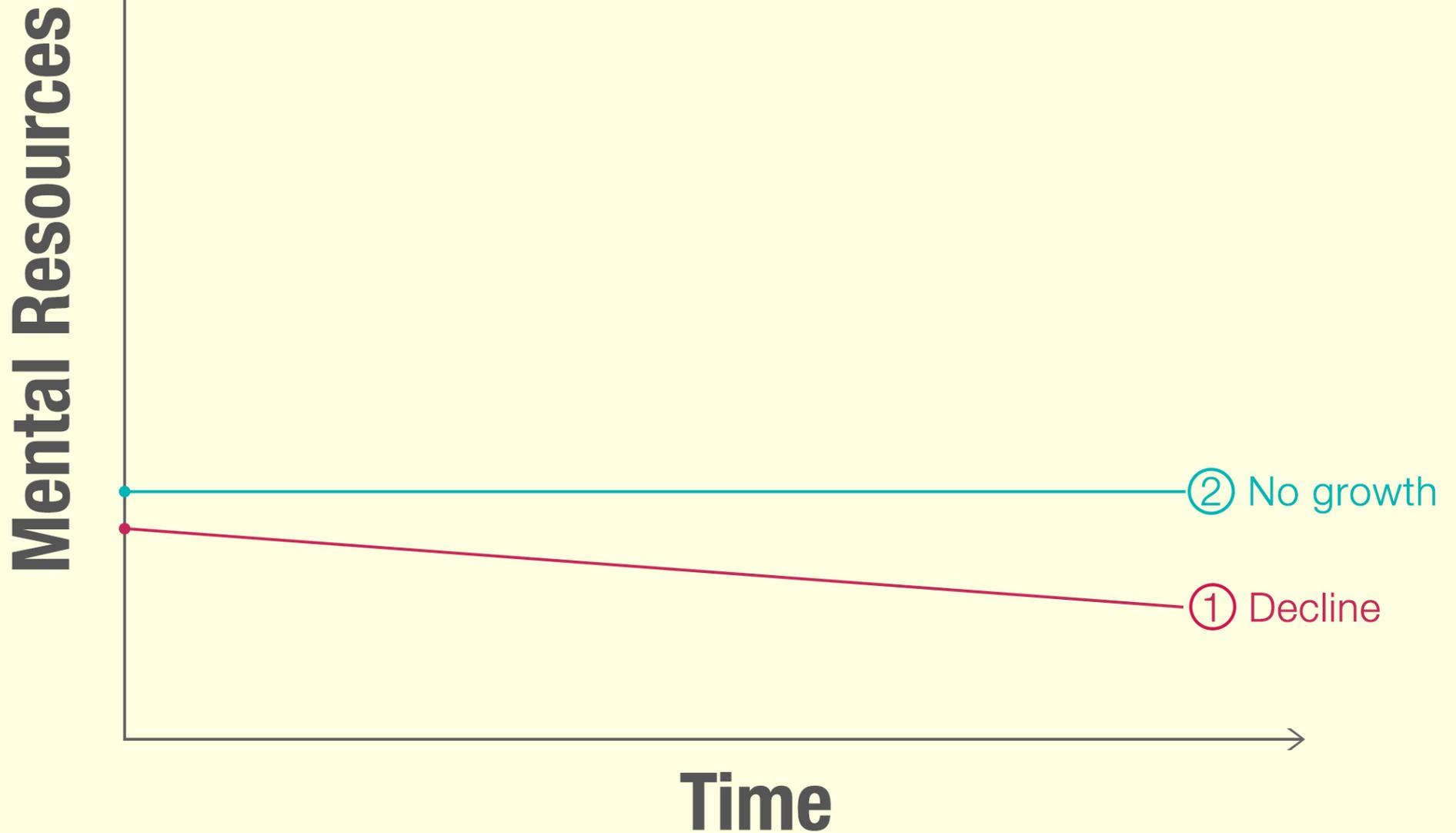
# Supplemental Materials

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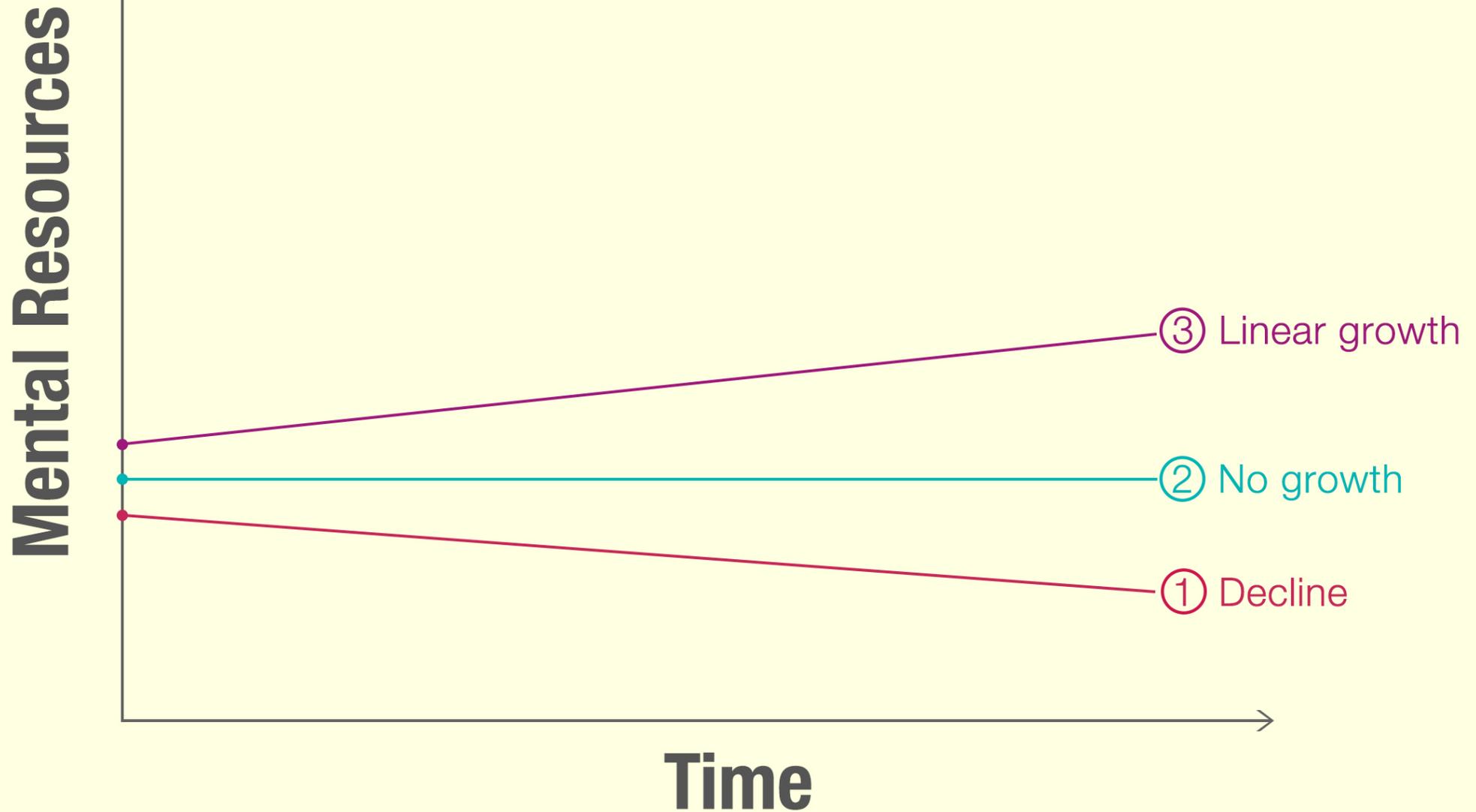
# Four Learning Curves



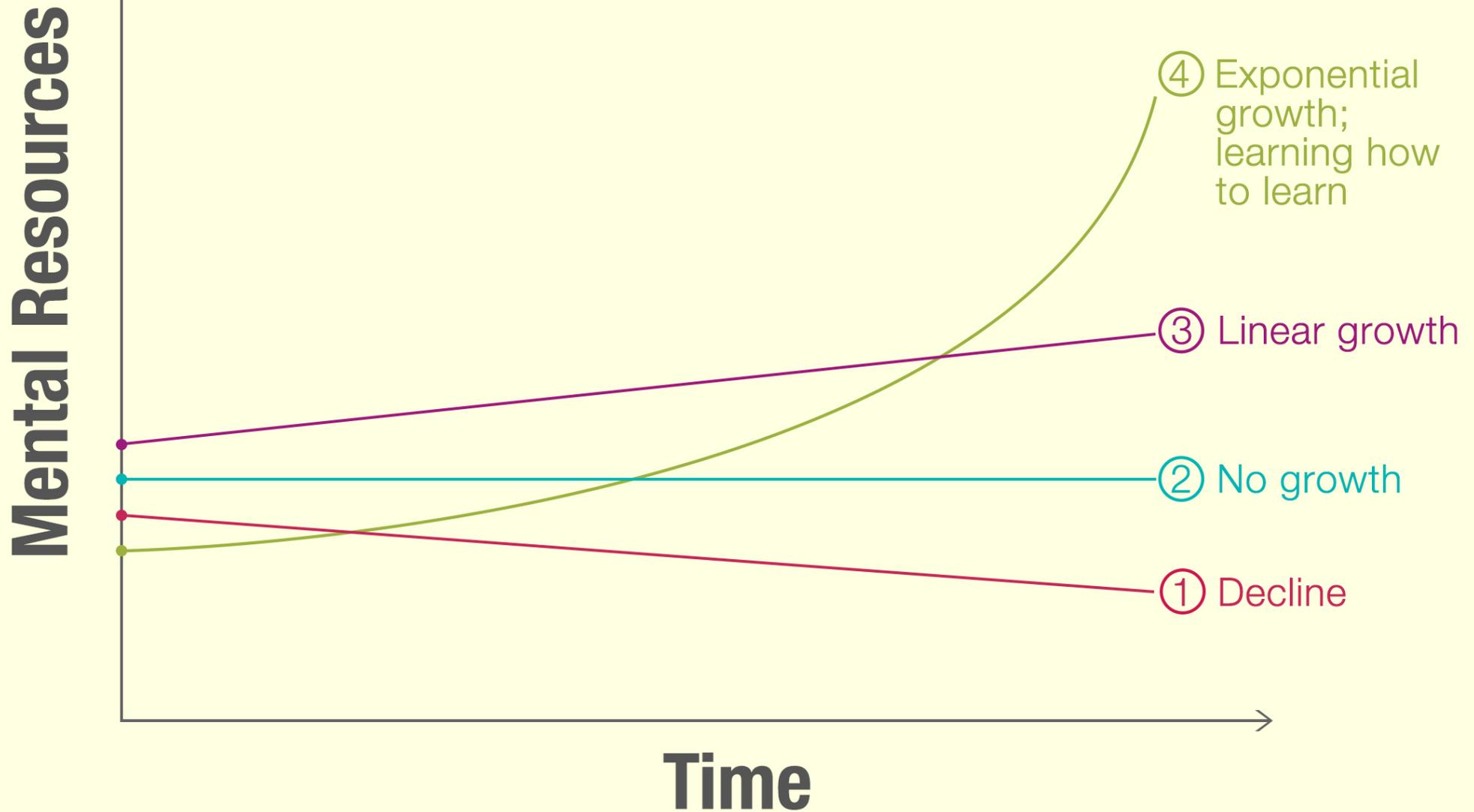
# Four Learning Curves



# Four Learning Curves



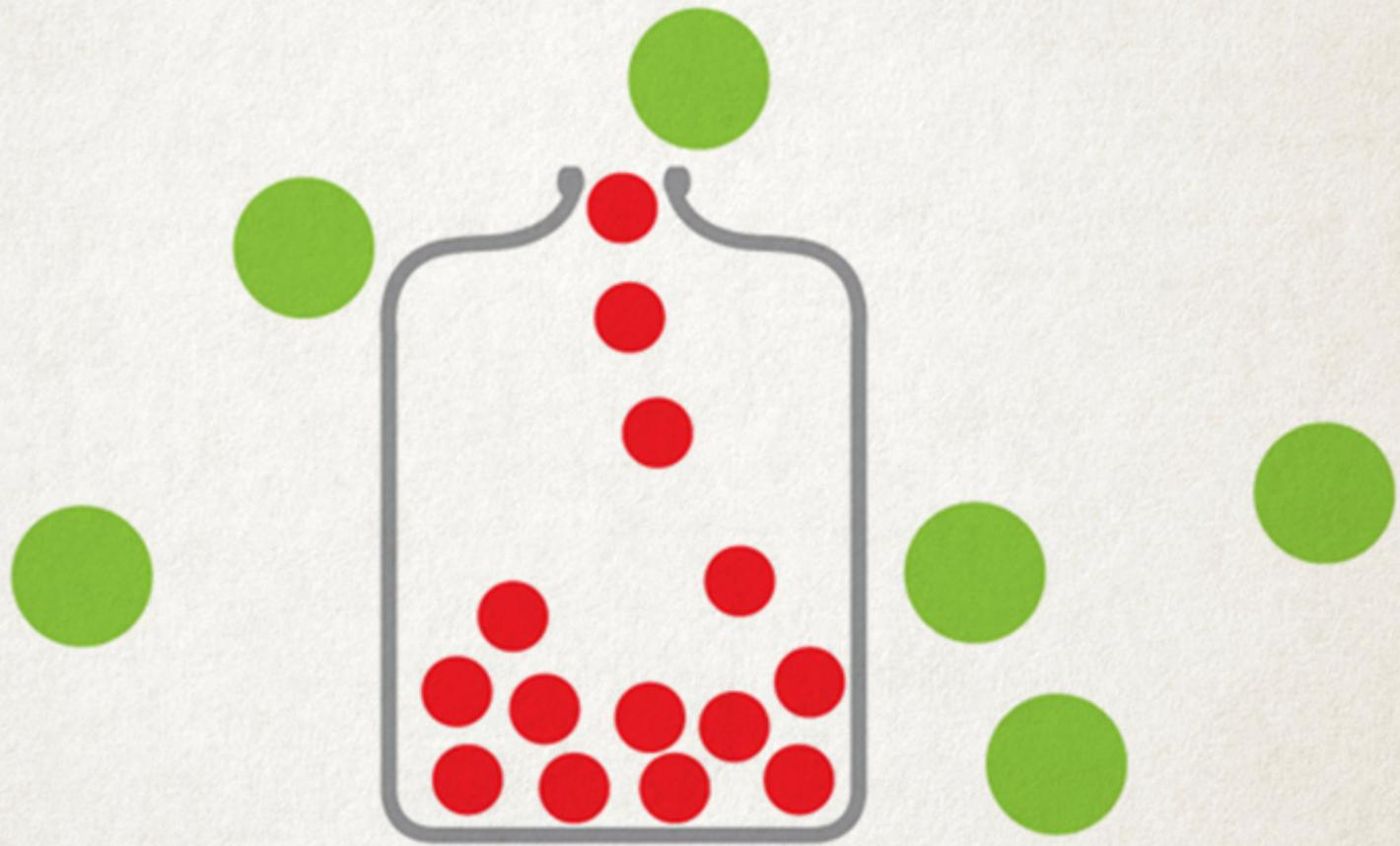
# Four Learning Curves



# 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

The brain is good  
at learning from bad experiences  
but relatively bad  
at learning from good ones.

Even though  
learning from good experiences  
of mental resources and related factors  
grows inner strengths.

# 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

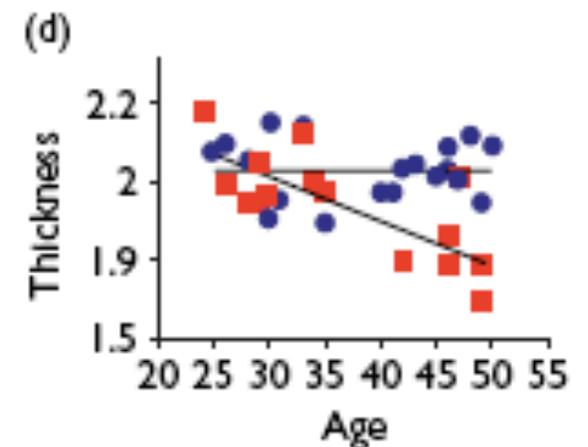
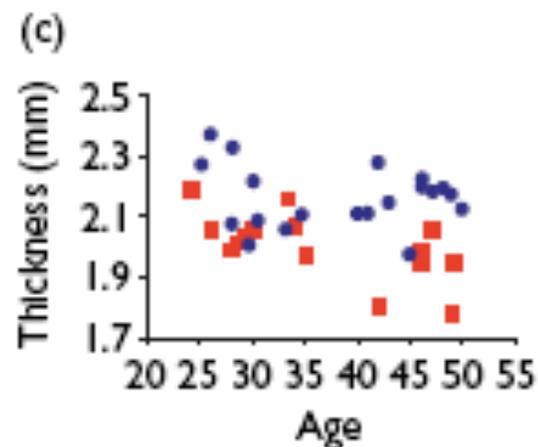
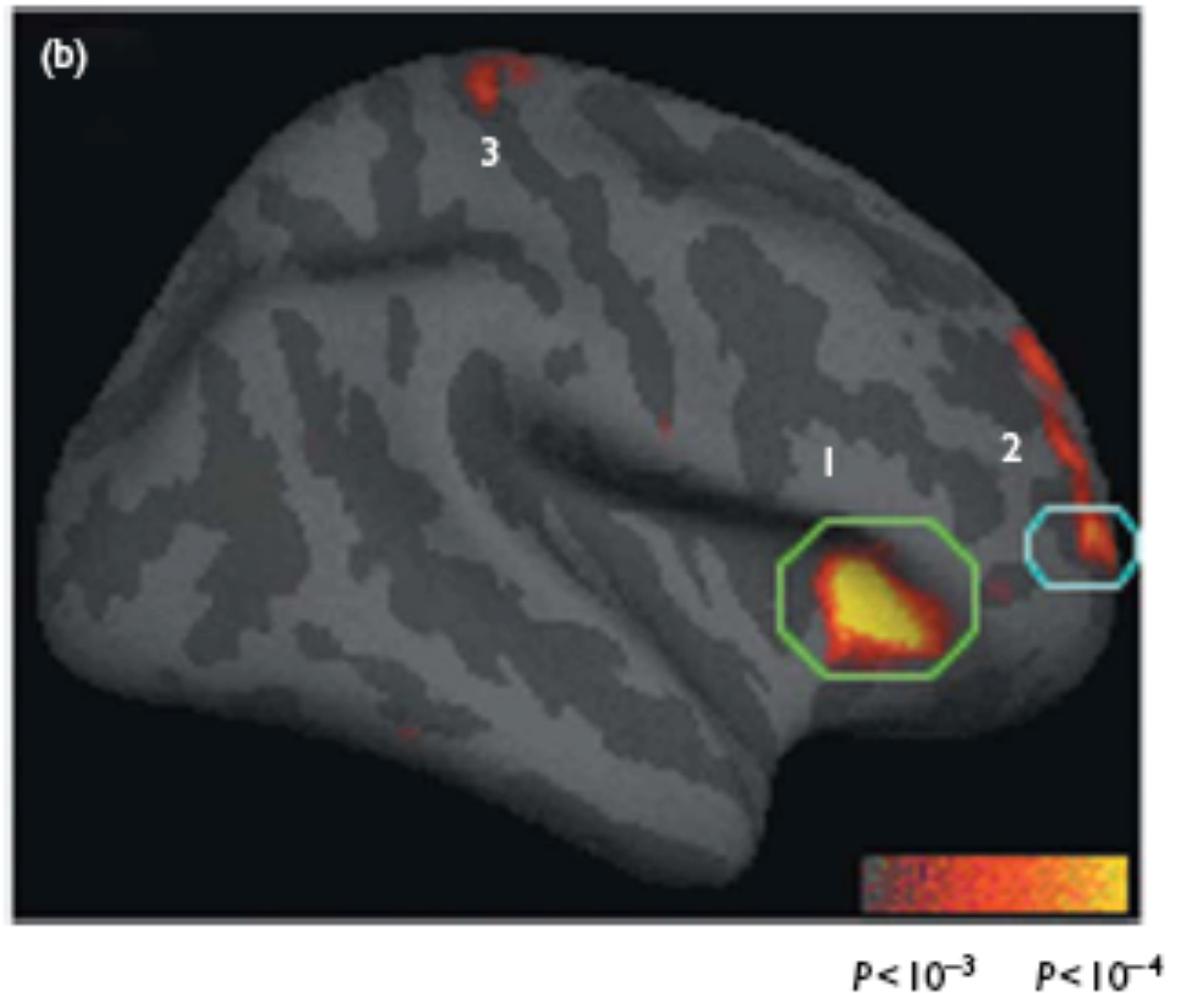
Altered neurochemical activity

Information from hippocampus to cortex

Modulation by stress hormones, cytokines

Slow wave and REM sleep

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



# Effects of Meditation on the Brain

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- Increased gray matter in the:
  - Insula - interoception; self-awareness; empathy for emotions
  - Hippocampus - visual-spatial memory; establishing context; inhibiting amygdala and cortisol
  - Prefrontal cortex (PFC) - executive functions; attention control
- Reduced cortical thinning with aging in insula and PFC
- Increased activation of left frontal regions, lifting mood
- Increased gamma-range brainwaves – heightened learning and integration
- Preserved telomere length in chromosomes, aiding longevity

# 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

**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?

# 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 (1)

## 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 (2)

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

# 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.

# 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 clinginess, 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.
  - 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

# Needs Feel Met: Responsive Mode



When we feel basically **safe** – not disturbed by **threat** – the Avoiding system goes Responsive, with a sense of **peace**.



When we feel basically **satisfied** – not disturbed by **loss** – the Approaching system goes Responsive, with a sense of **contentment**.



When we feel basically **connected** – not disturbed by **rejection** – the Attaching system goes Responsive, with a sense of **love**.

# The Responsive Mode is Home Base

In the **Responsive** “**green zone**,” the body defaults to a sustainable equilibrium of refueling, repairing and recovering.

The mind defaults to a sustainable equilibrium of:

Avoiding

**Peace**

Approaching

**Contentment**

Attaching

**Love**

This is the brain in its homeostatic **Responsive**,  
*minimal craving* mode.

# Needs Don't Feel Met: **Reactive Mode**



When we feel **unsafe** –  
disturbed by **threat** – the  
Avoiding system  
goes Reactive,  
with a sense  
of **fear**.



When we feel **dissatisfied** –  
disturbed by **loss** –  
the Approaching  
system goes  
Reactive, with  
a sense of  
**frustration**.



When we feel **disconnected** –  
disturbed by **rejection** – the  
Attaching system  
goes Reactive,  
with a sense  
of **heartache**.

# The Reactive Mode is Leaving Home

In the **Reactive “red zone,”** the body fires up into the stress response: fight, flight, or freeze; outputs usually exceed inputs; long-term building projects are deferred.

The mind fires up into:

Avoiding

**Fear**

Approaching

**Frustration**

Attaching

**Heartache**

This is the brain in its allostatic **Reactive, craving** mode.

# Resting in Love

- Bring to mind beings you care about . . .  
Friends, family, pets, people who have helped you . . . Compassion for suffering . . .  
Kindness and friendliness . . .
- Focus on feelings of caring and love . . .
- Bring to mind beings who care about you . . .  
Focus on feeling cared about. . .