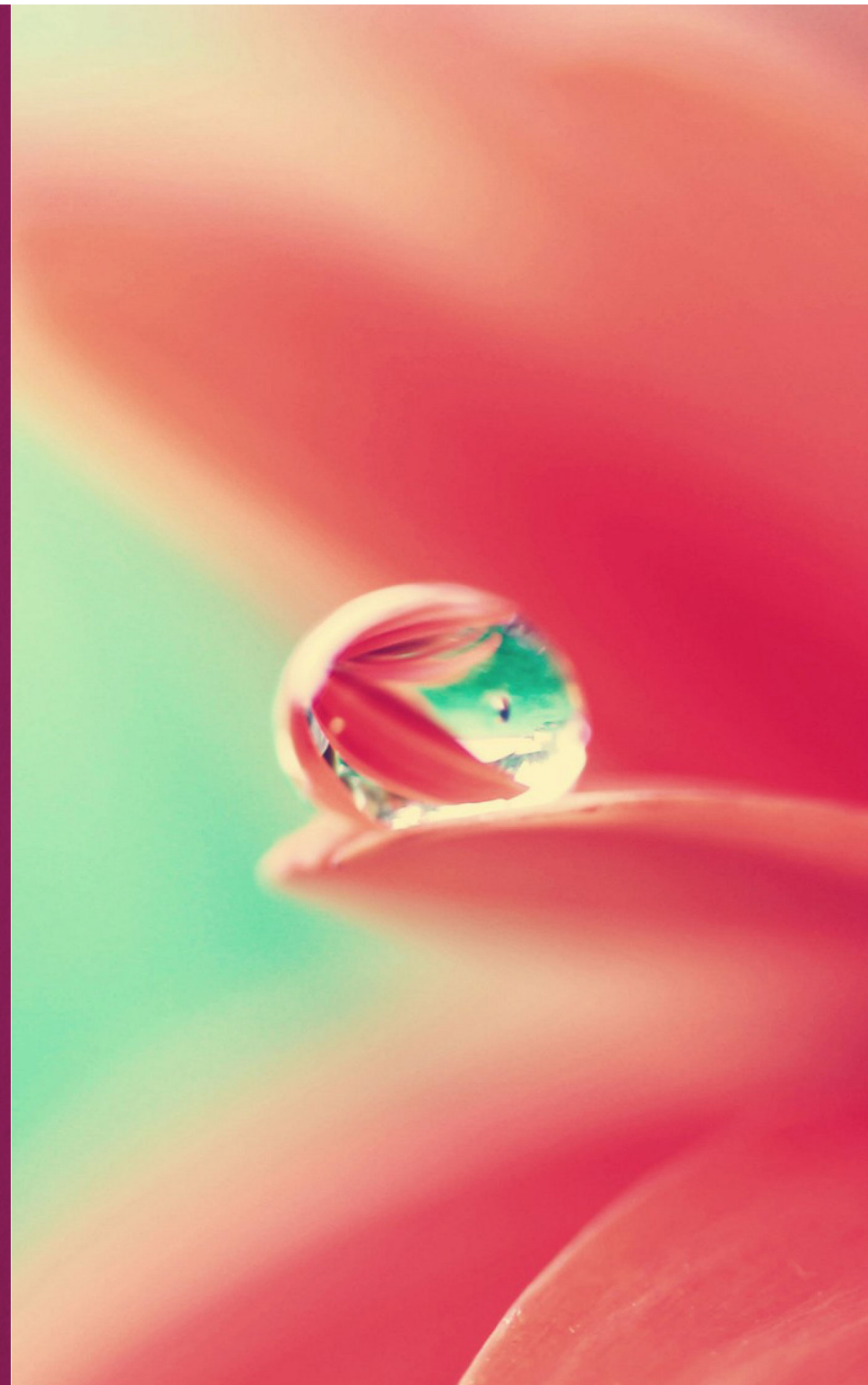


*Think not lightly of good,  
saying,  
“It will not come to me.”*

*Drop by drop is  
the water pot filled.*

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

**Dhammapada 9.122**





# Positive Neuroplasticity



Professional Course

© Rick Hanson, Ph.D., 2019





1

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Foundations



# What is the Practice of Positive Neuroplasticity?

**The deliberate internalization  
of beneficial experiences**

**Informally called  
“taking in the good”**



# Welcome to the Professional Course

## Aims

**Explain. Guide. Embody.**

**Deepen embodiment of positive neuroplasticity (PN)**

**Understand theory and have practical skills**

**Deepen supportive qualities**

**Use PN with others, typically in occupational settings**

## Methods

**Internal practice, trying methods with a partner, small group discussion, whole group lecture and discussion**

**Presumed capabilities to work with others, give and get feedback skillfully, and basic understanding of PN**

## Questions?



# Well-Being

Hedonia

Eudaimonia



# Shaping the Course of a Life

Challenges

Vulnerabilities

Resources



# Location of Resources

World

Body

Mind



# Two Wolves in the Heart





# Examples of Inner Strengths?

**Understandings**

**Capabilities**

**Positive emotions**

**Attitudes**

**Motivations**

**Virtues**



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.





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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 these questions:

**TIP:** If you're alone, reflect or journal.

For yourself or a client: What are some challenges these days? (in the world, body, or mind)

What mental resources do – or could – help you with these challenges?



# In the Garden of the Mind

1

**Be with what  
is there**

2

**Decrease  
the negative**

3

**Increase  
the positive**

Witness. Pull weeds. Plant flowers.

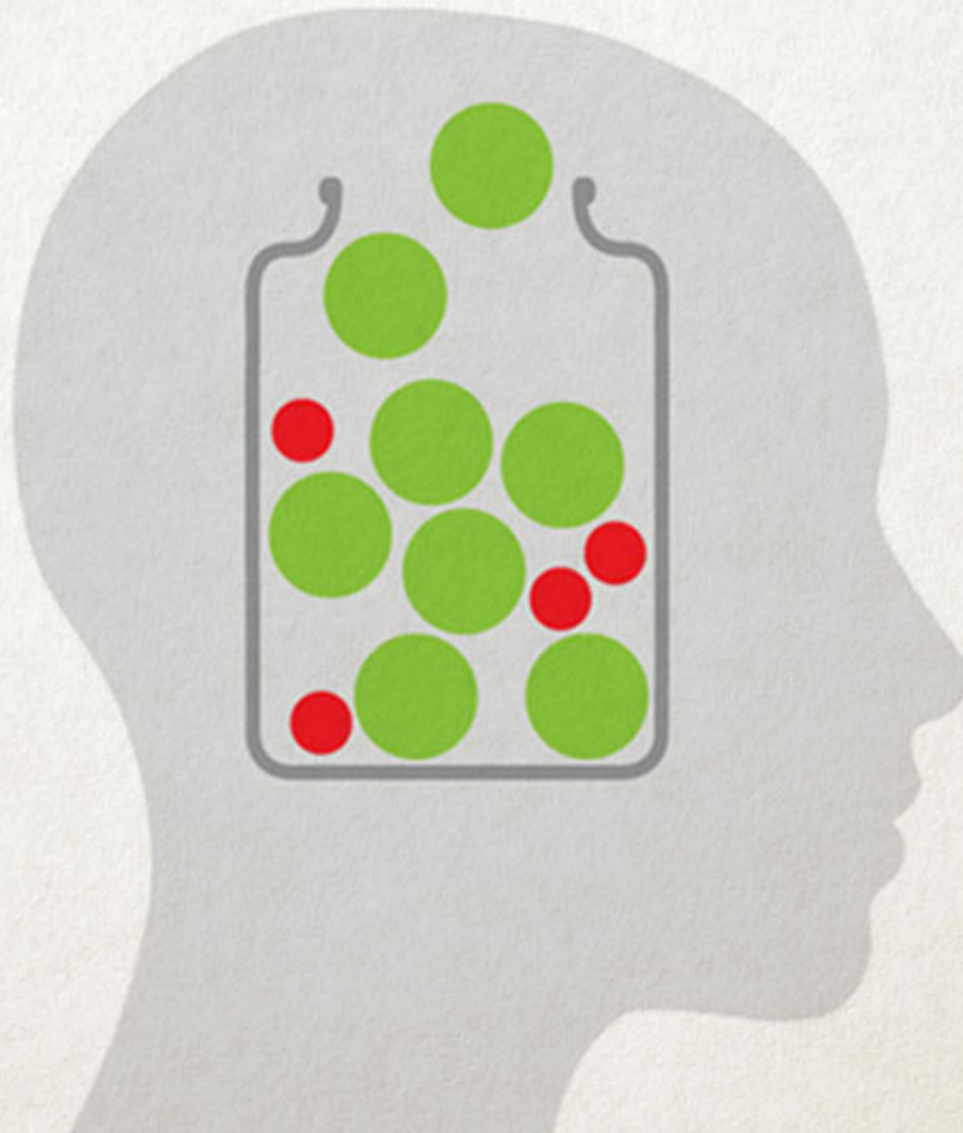
Let be. Let go. Let in.

Recognizing. Releasing. **Resourcing.**

“Being with” is primary – but not enough.  
We also need wise effort: releasing & resourcing.

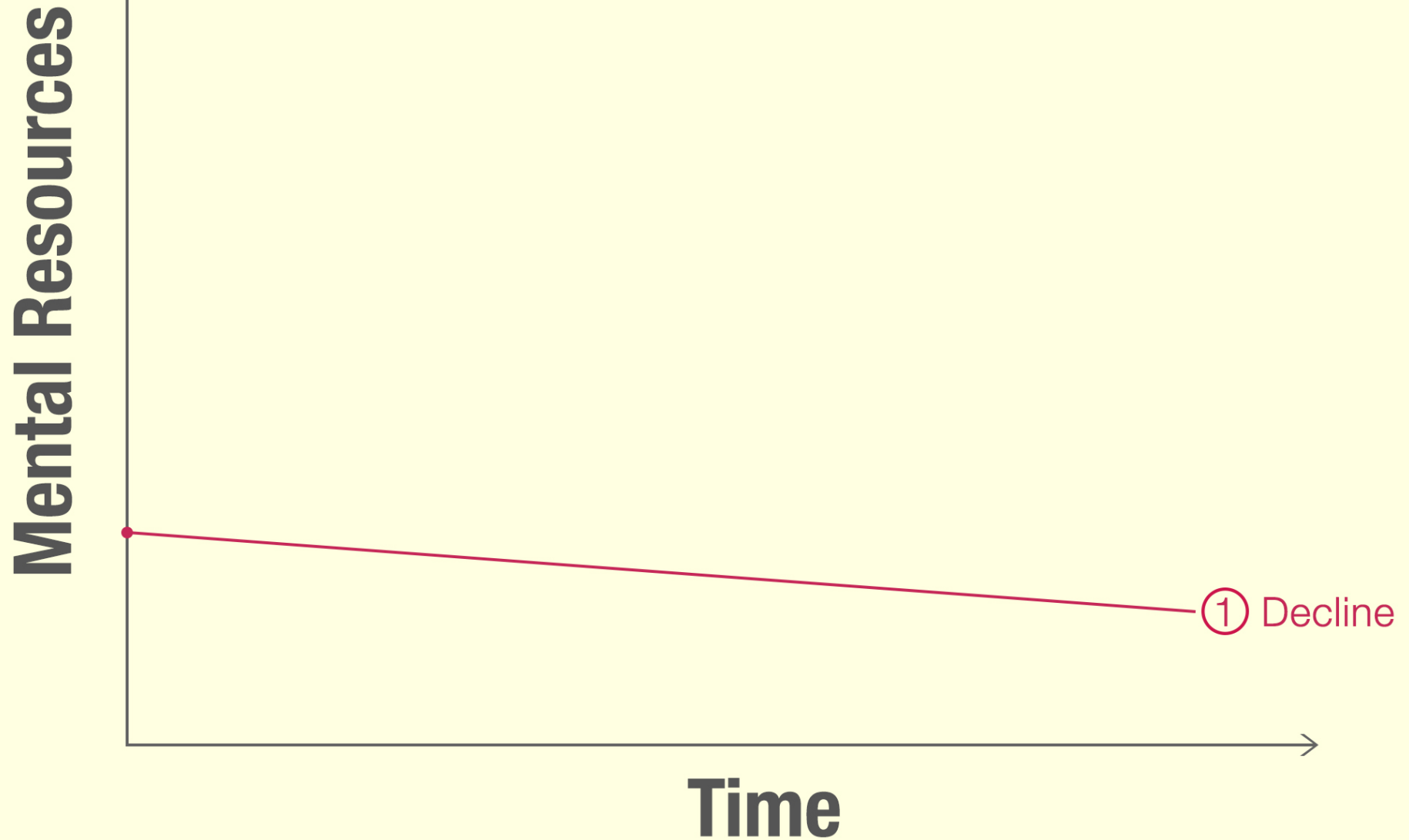


# Inner Strengths Are Built From Brain Structure



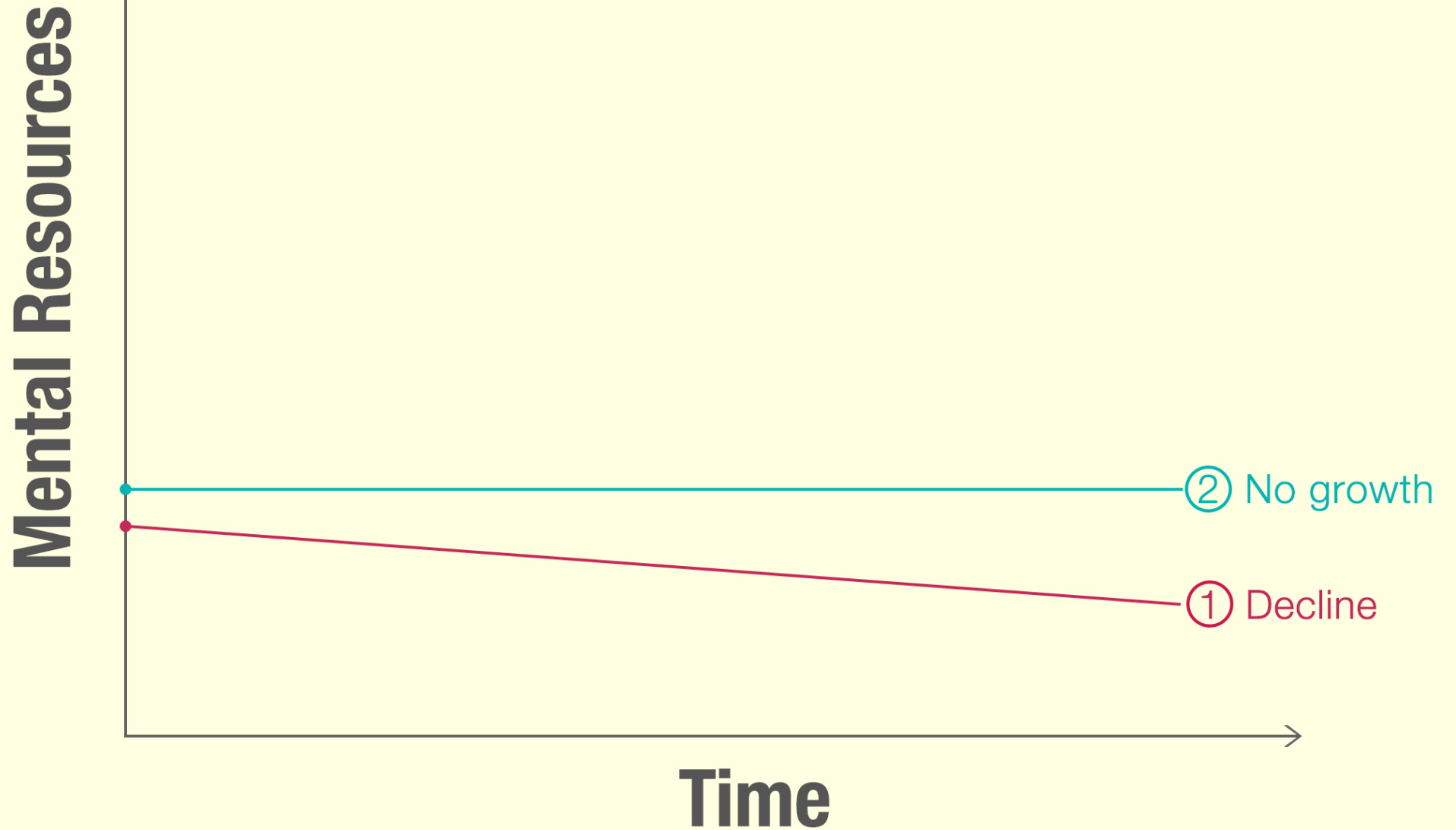


# Four Learning Curves



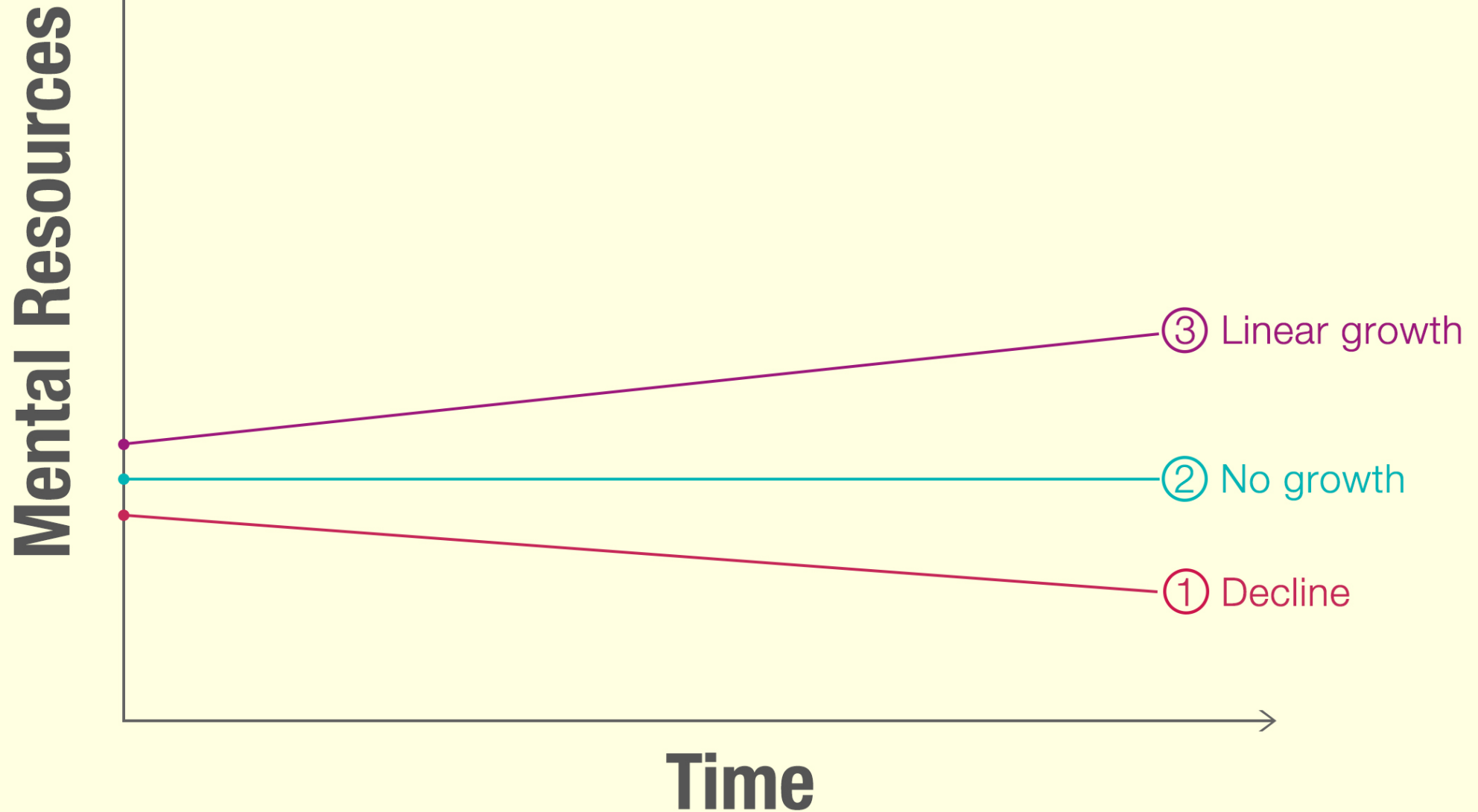


# Four Learning Curves



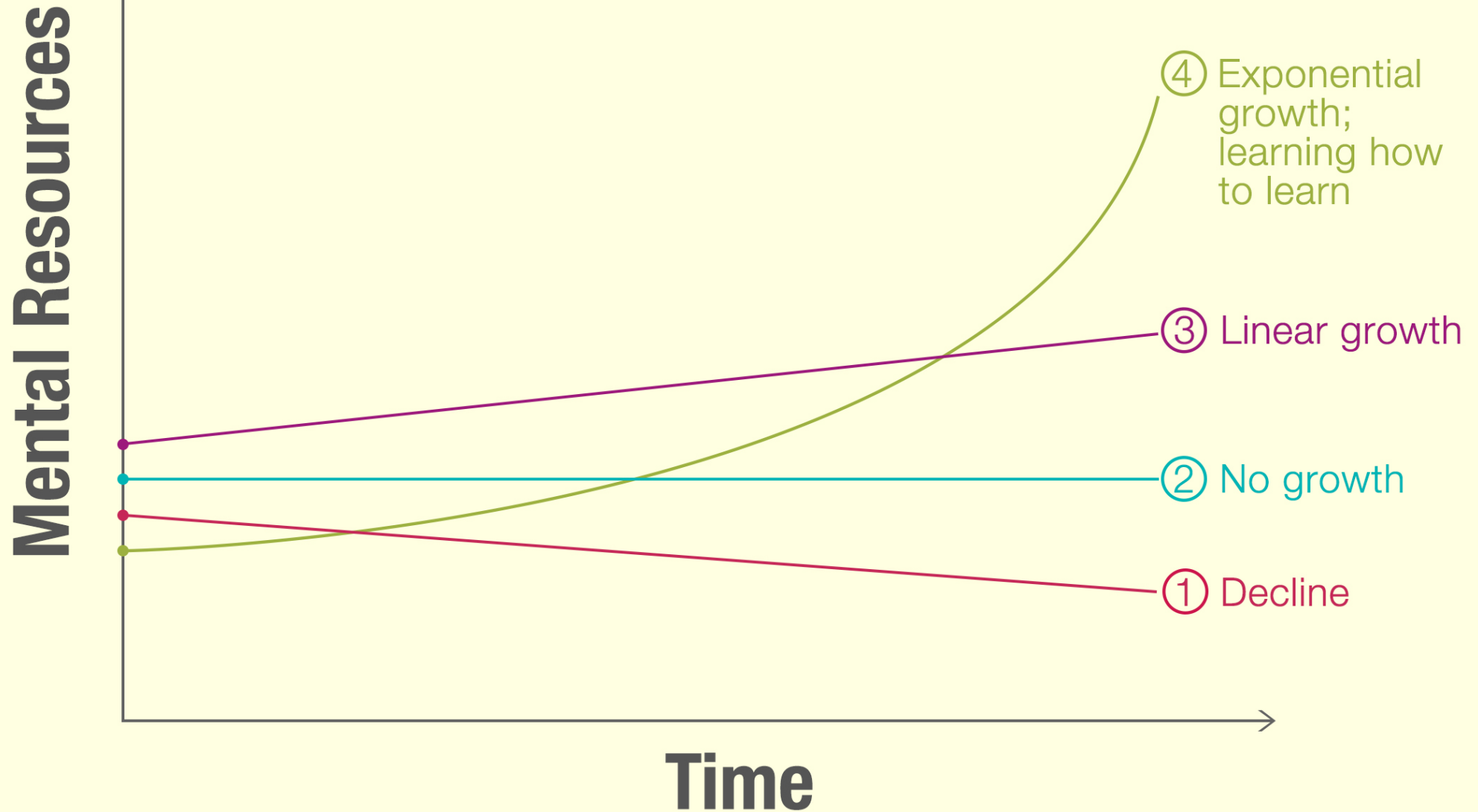


# Four Learning Curves

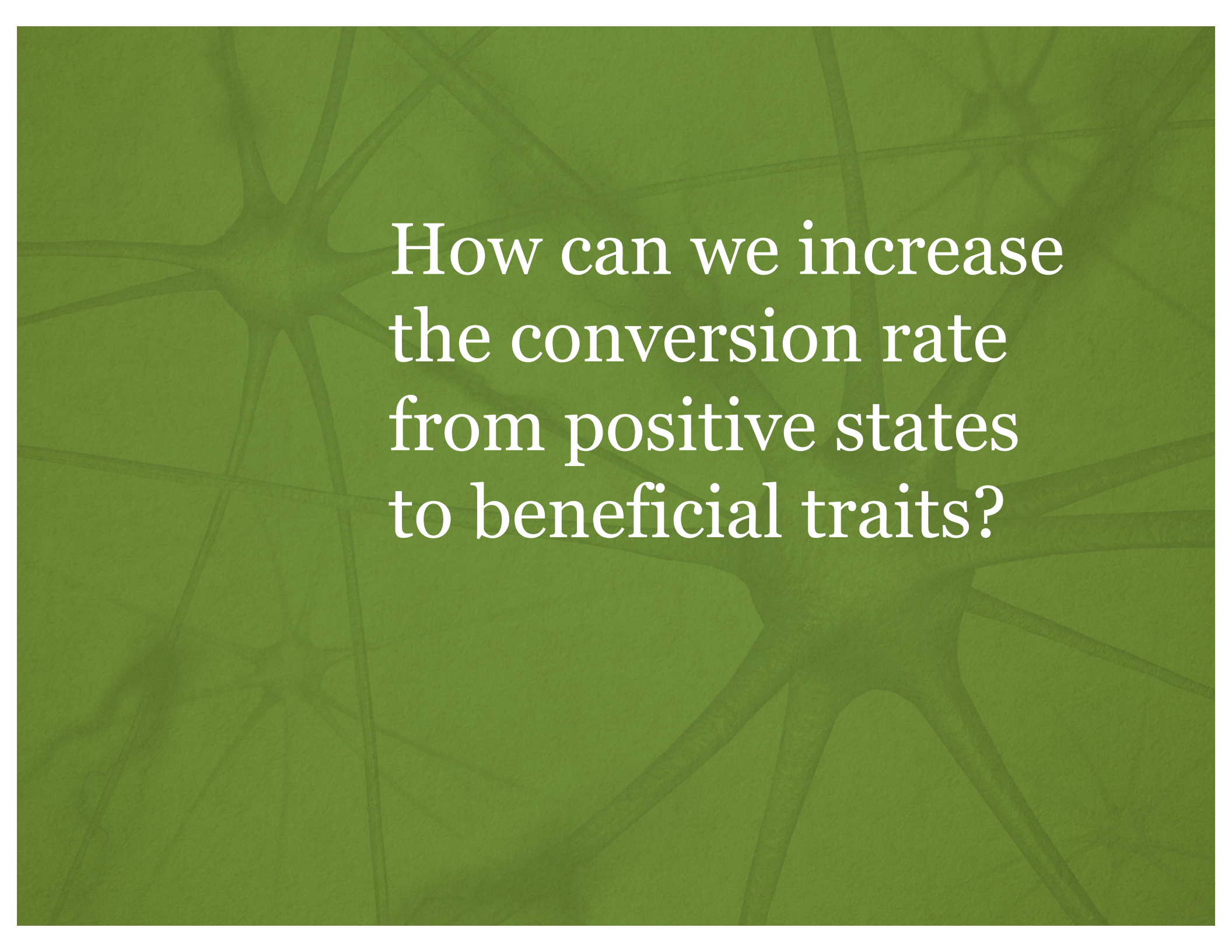




# Four Learning Curves







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



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# Learning How To Learn

---



# 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



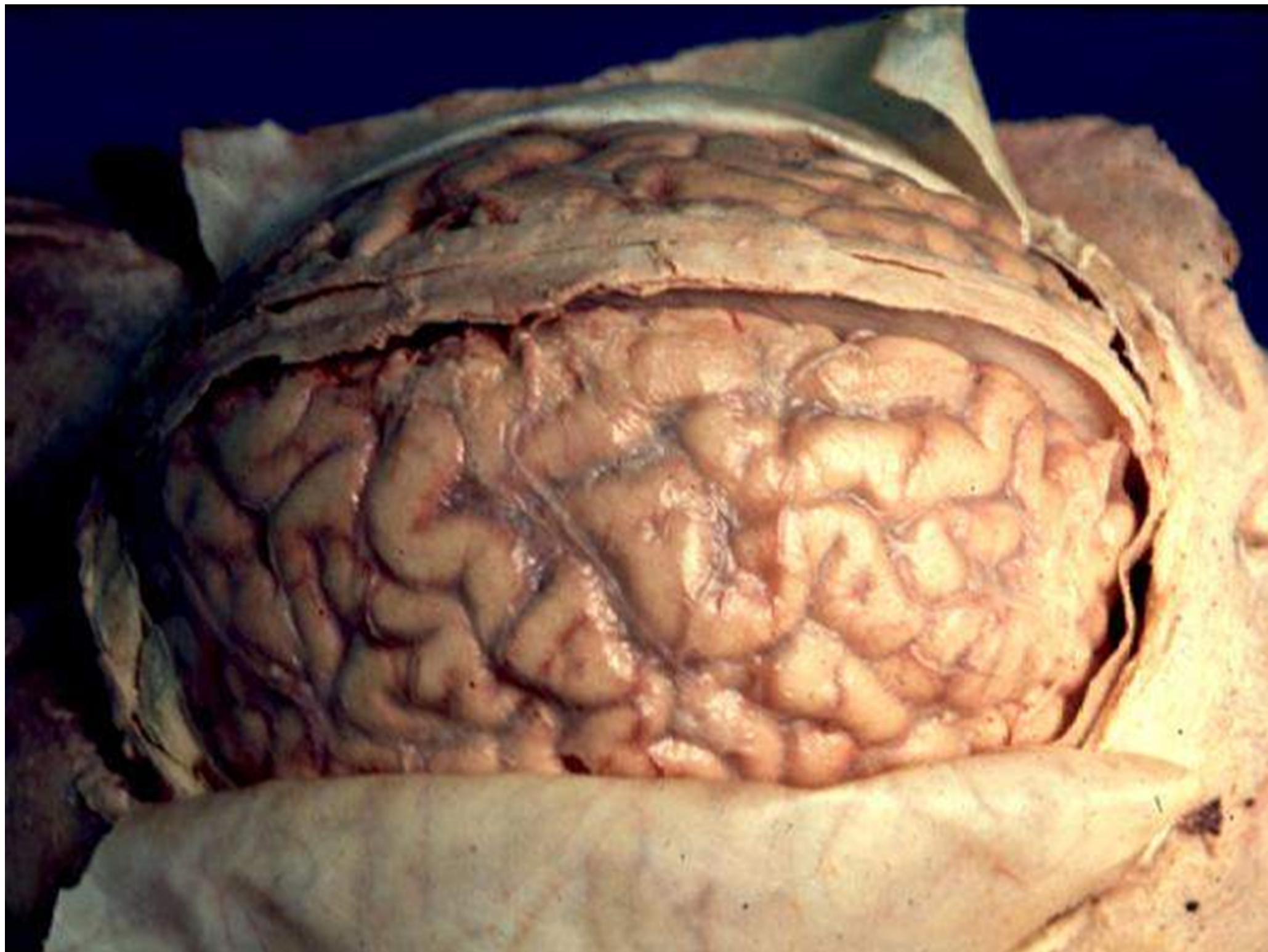


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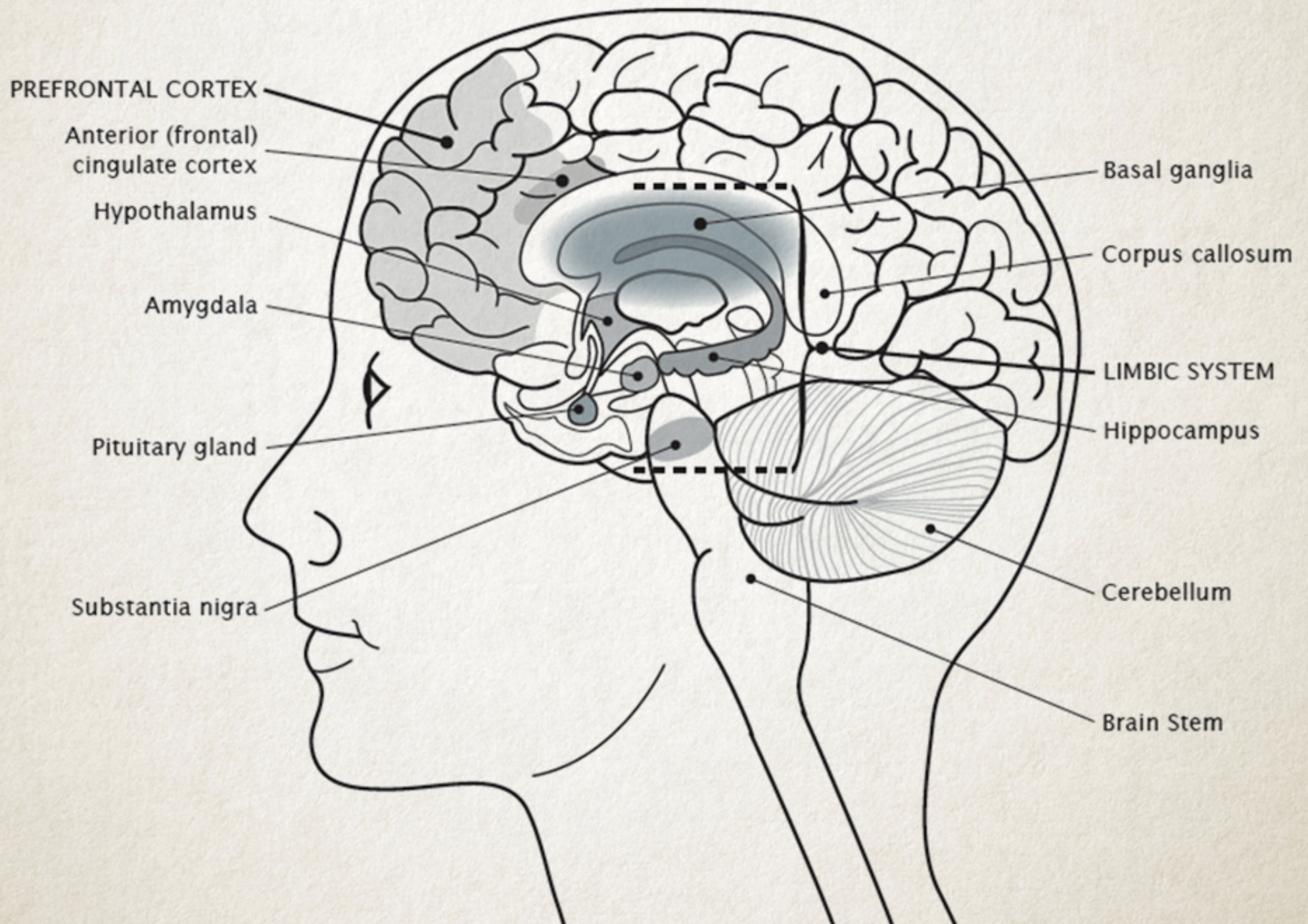
# Experience-Dependent Neuroplasticity

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# Your Brain: The Technical Specs

## Size:

- 3 pounds of tofu-like tissue
- 1.1 trillion brain cells
- 85 billion “gray matter” neurons

## Activity:

- Always on 24/7/365 - Instant access to information on demand
- 20-25% of blood flow, oxygen, and glucose

## Speed:

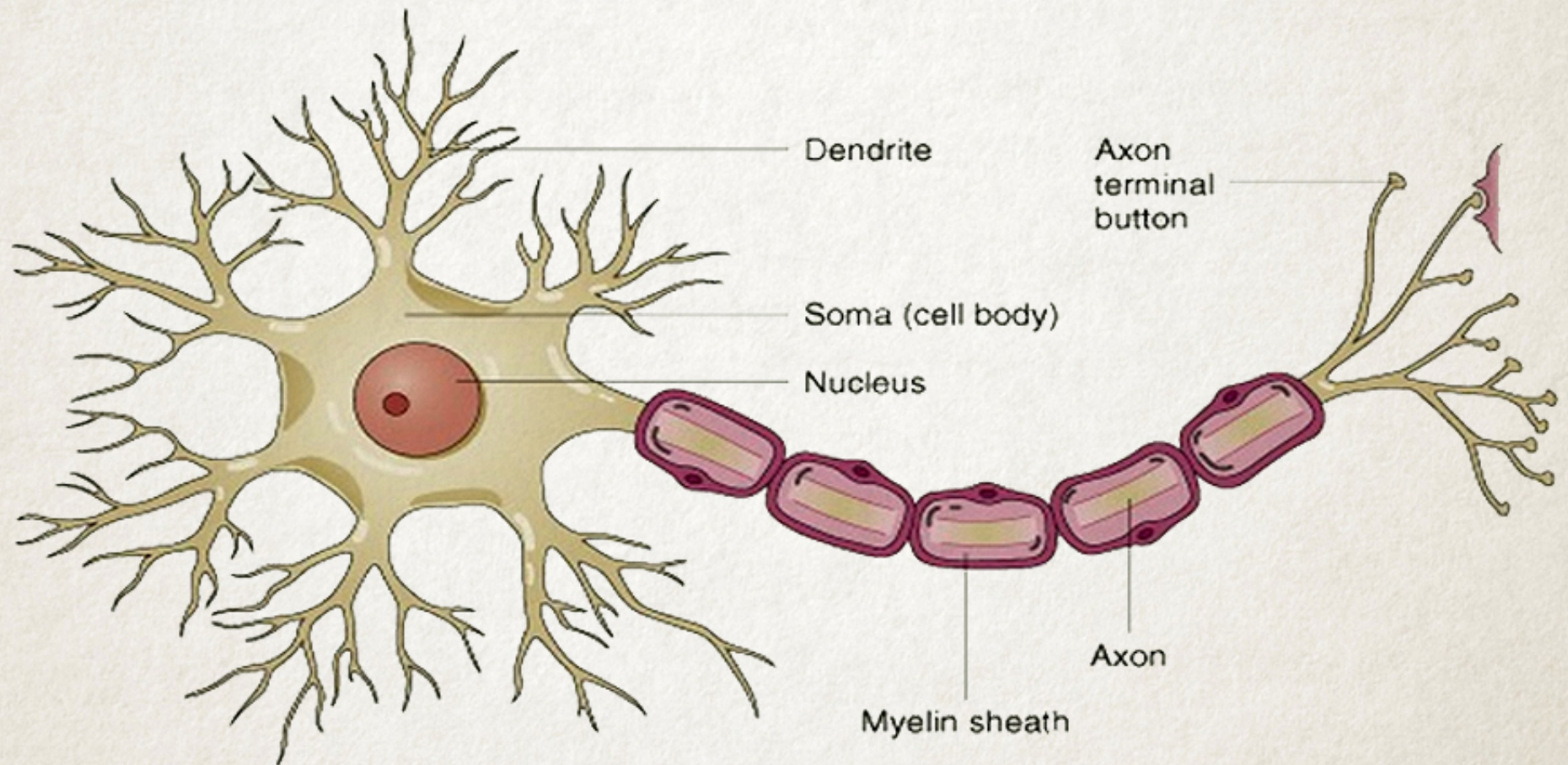
- Neurons firing around 5 to 50 times a second (or faster)
- Signals crossing your brain in a tenth of a second

## Connectivity:

- Average neuron makes ~ 5000 connections with other neurons:  
~ 500 trillion synapses

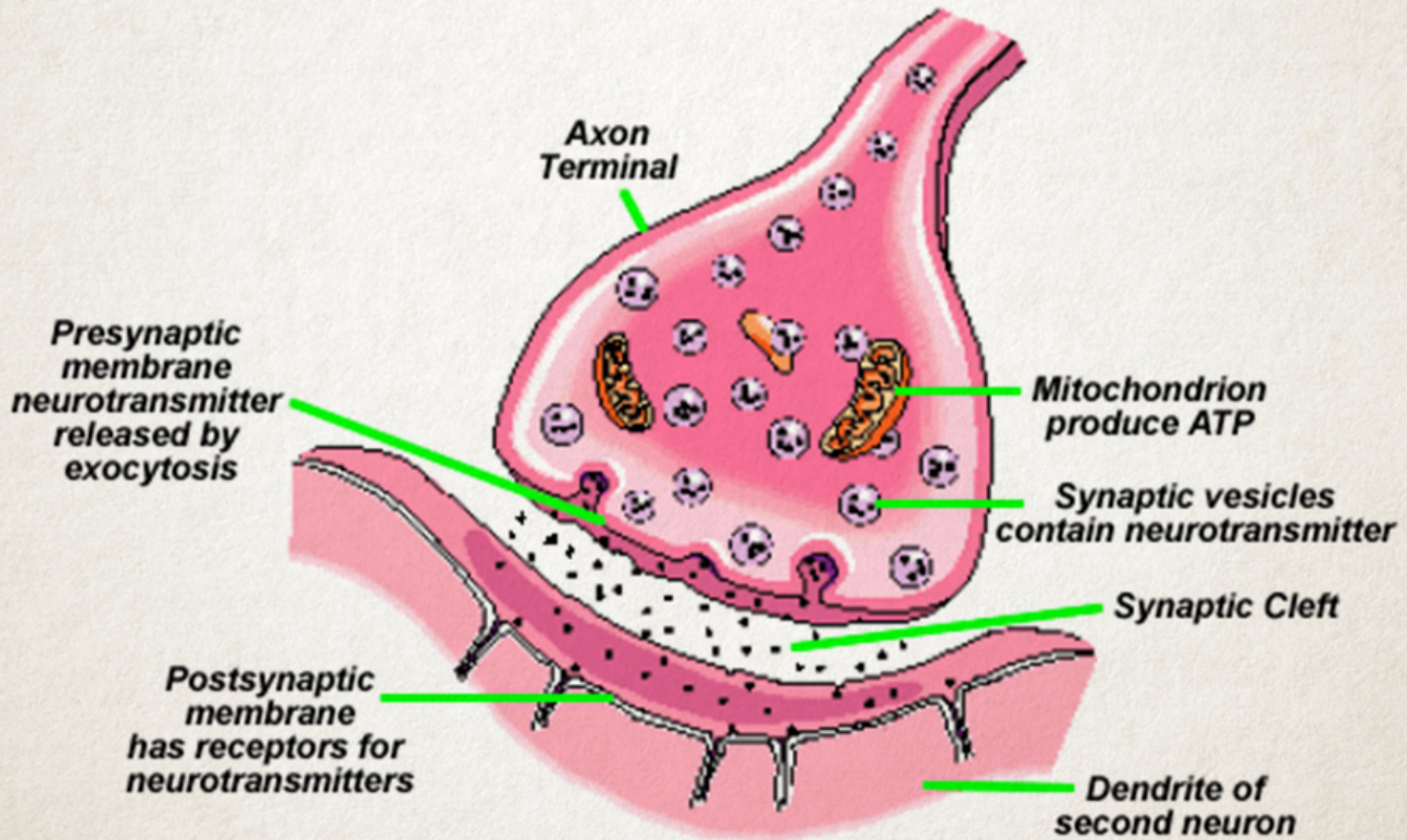


# A Neuron





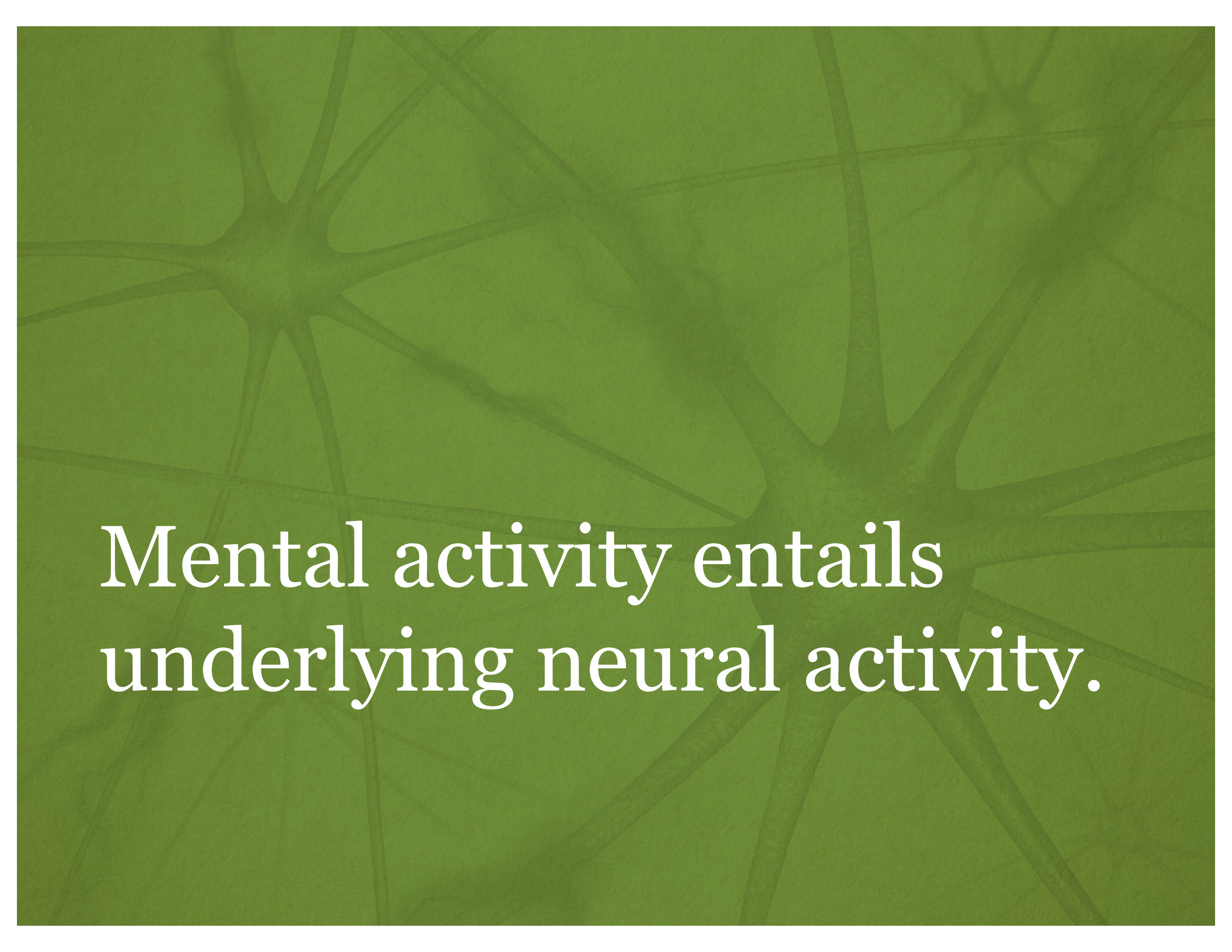
# A Synapse







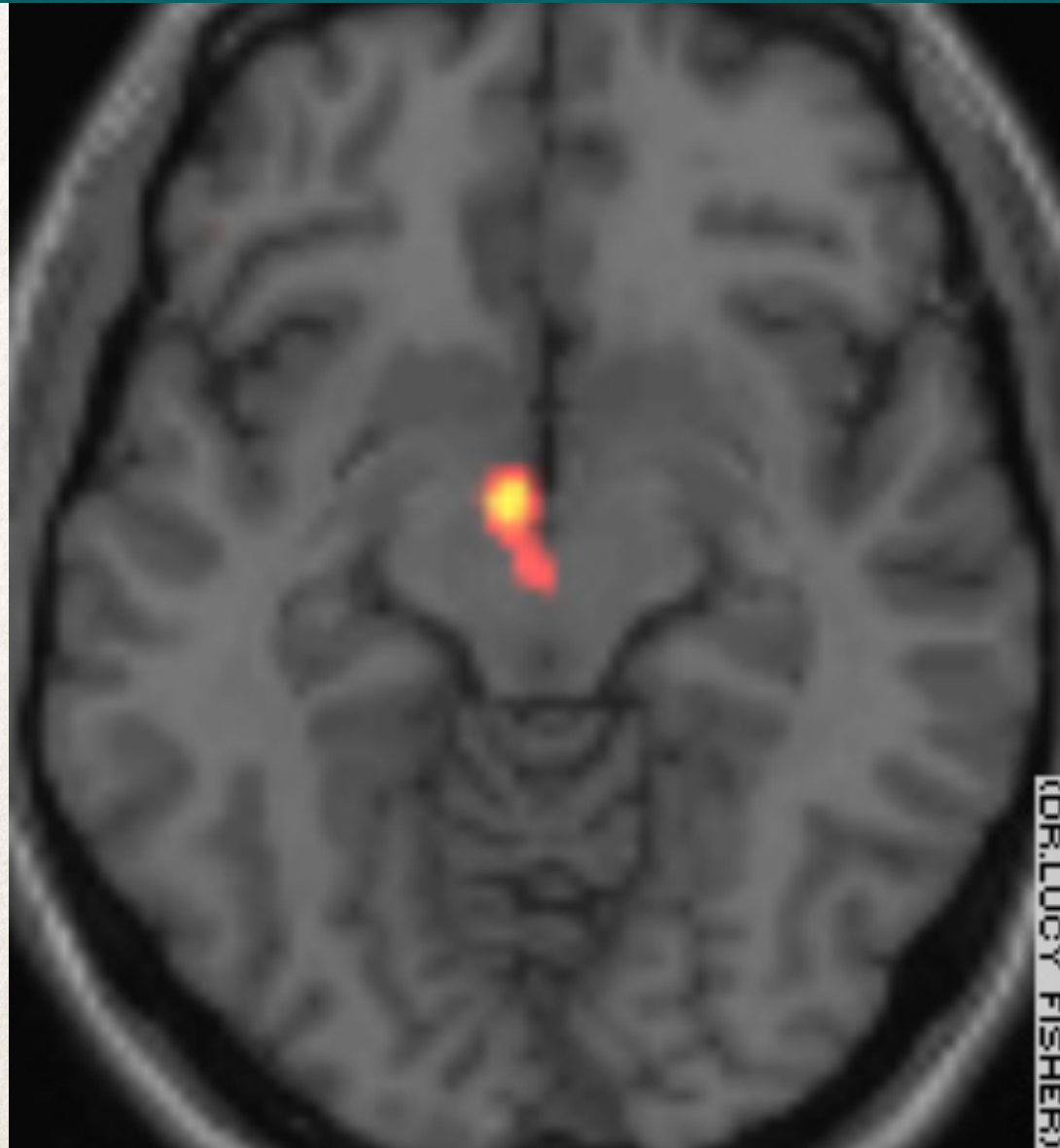




Mental activity entails  
underlying neural activity.



# Rewards of Love

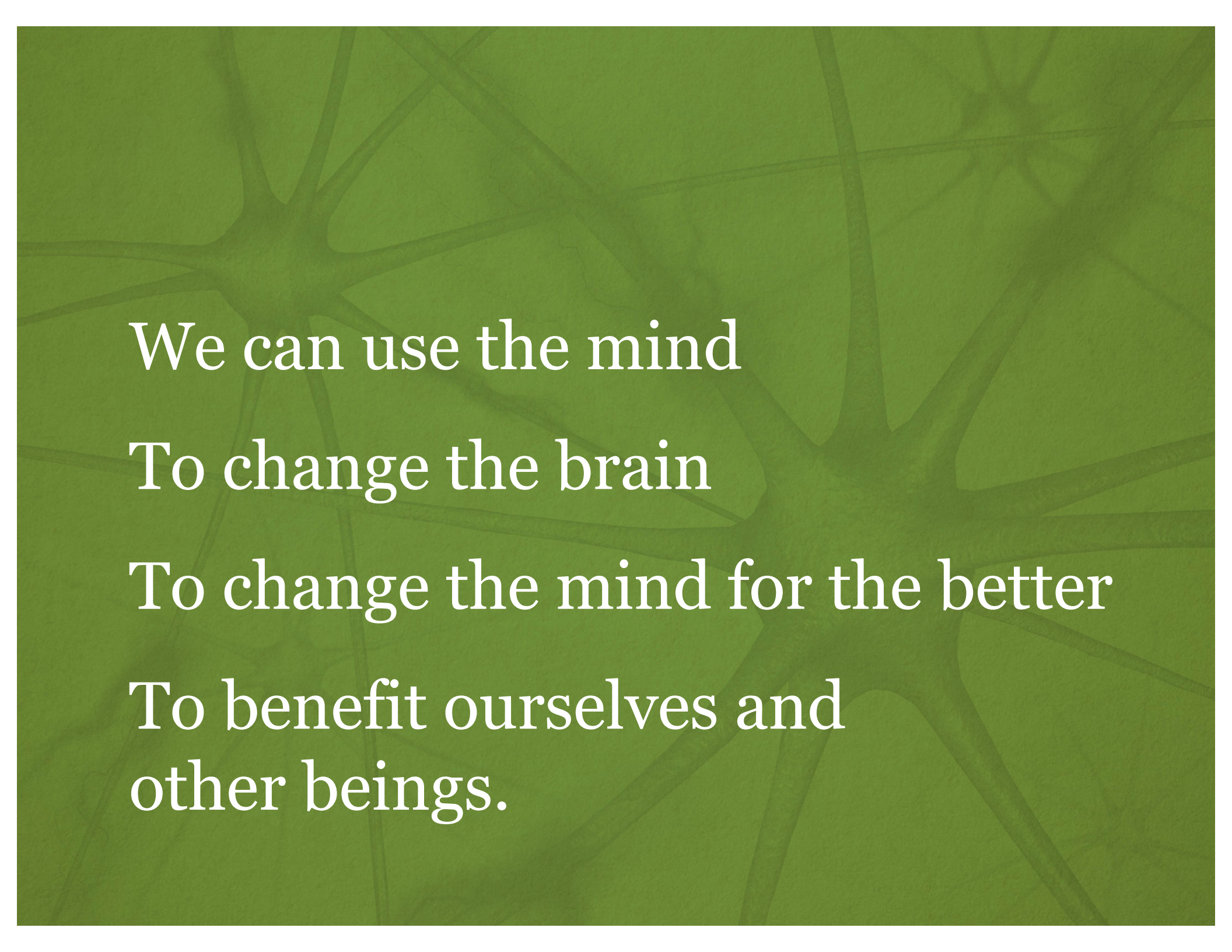




Repeated mental activity  
entails repeated neural activity.

Repeated neural activity  
builds neural structure.





We can use the mind  
To change the brain  
To change the mind for the better  
To benefit ourselves and  
other beings.



A microscopic image of neurons, showing a central neuron with a bright green nucleus and numerous long, thin, yellowish axons extending across the field of view. The background is dark, making the neurons stand out.

Neurons that fire together,

wire together.



# 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

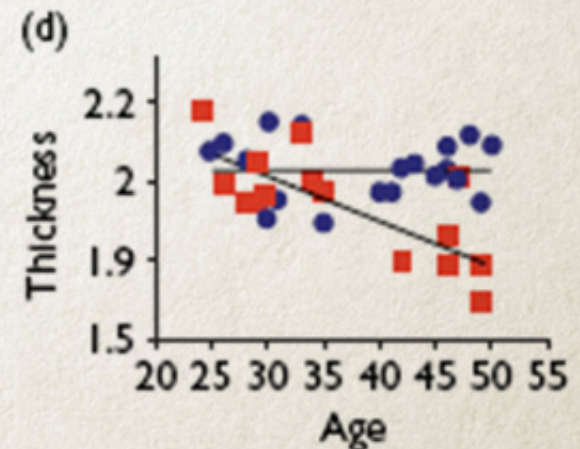
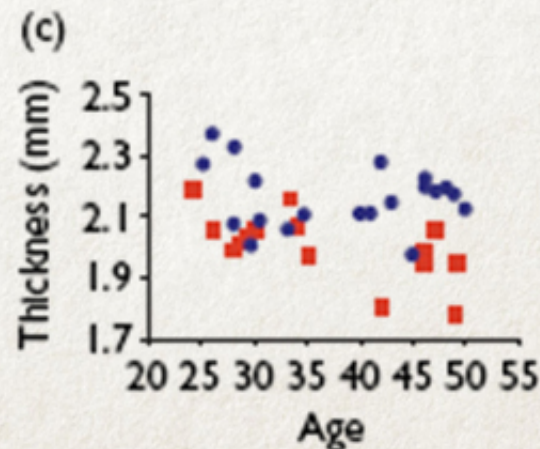
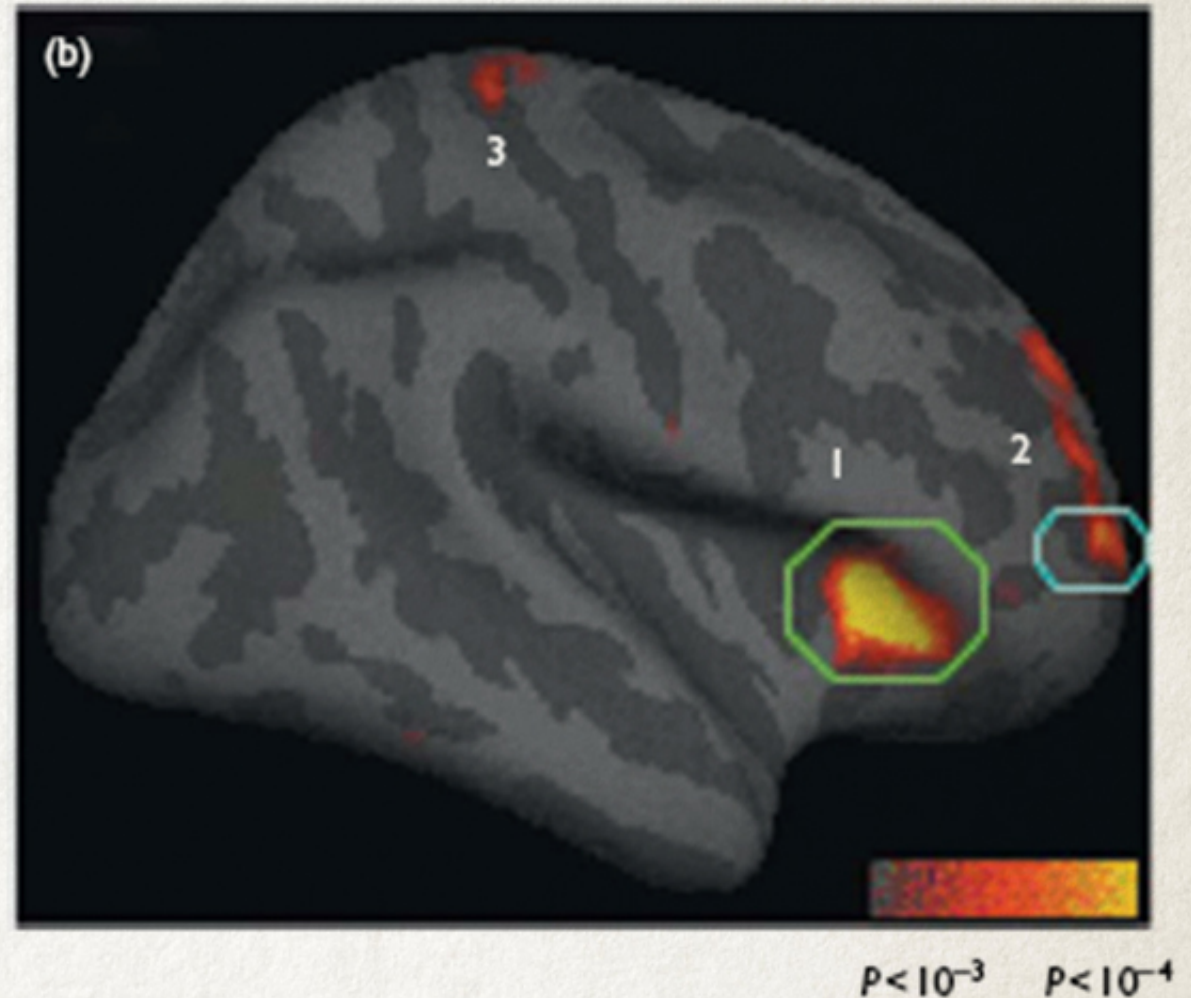
Slow wave and REM sleep



Lazar, et al. 2005.

**Meditation  
experience is  
associated  
with increased  
cortical  
thickness.**

*Neuroreport*, 16,  
1893-1897.





**Learning** – changing  
neural structure and function,  
proceeds in two stages:





**Inner strengths are grown  
from experiences of them  
or related factors  
– activated states – that  
are installed as traits.**



You become more **compassionate** by repeatedly installing experiences of compassion.

---

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

---

You become more **mindful** by repeatedly installing experiences of mindfulness.



Most experiences of inner strengths – resilience, kindness, mindfulness, etc. – are **rewarding**: enjoyable or meaningful.

Their rewarding qualities mark their **value** and motivate us to gain it.



Without **installation** – without turning passing mental states into enduring neural structure – there is no learning, no change in the brain.

Activation without installation is pleasant,  
but has no lasting value.

What fraction of your  
beneficial mental states ever  
become neural structure?



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

**Scott Miller**





# 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.



# Velcro for Bad, Teflon for Good

**The negativity bias**

*bad experiences*

*good experiences*

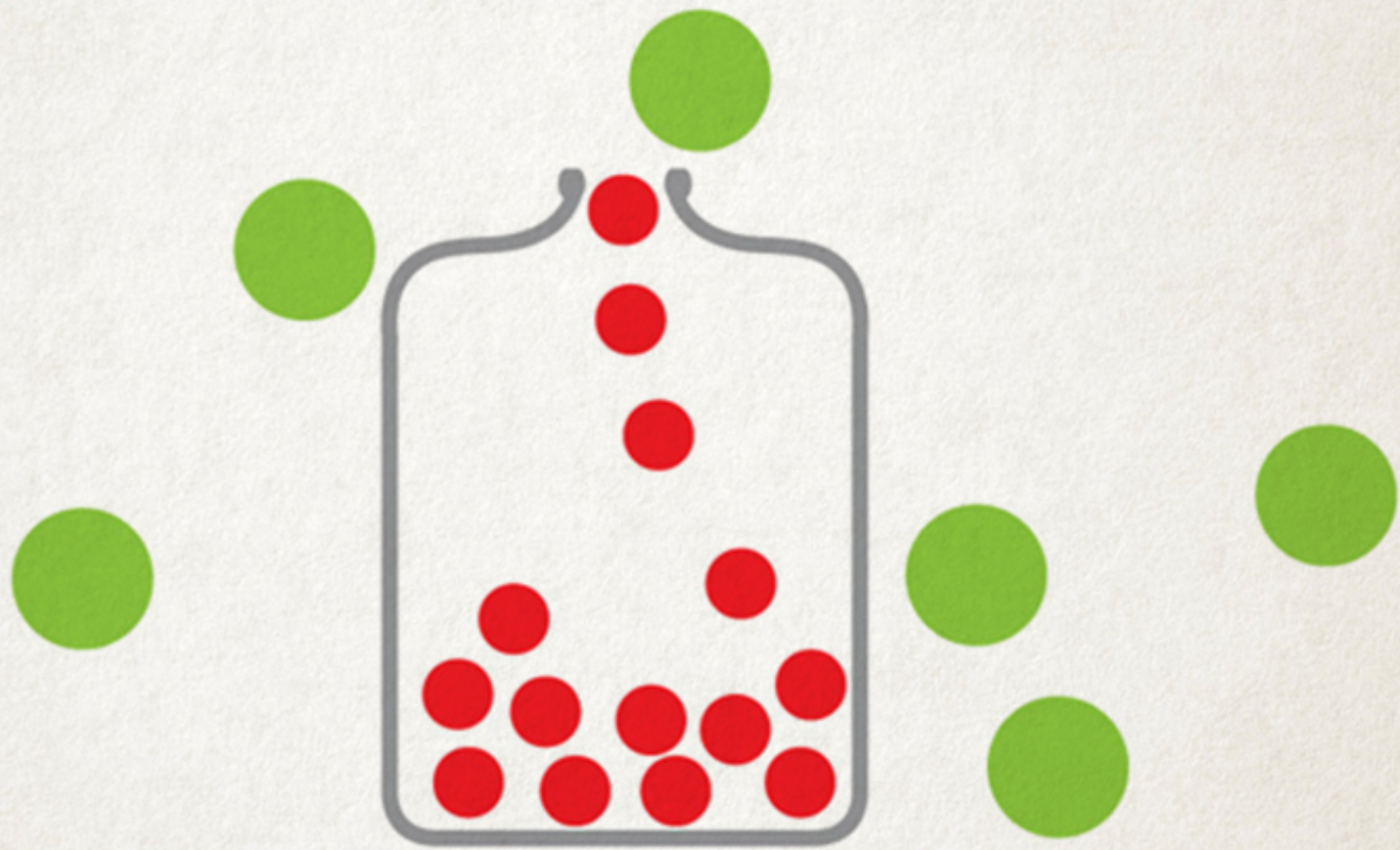




The brain is good  
at learning from bad experiences  
but relatively bad  
at learning from good ones.

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





The Negativity Bias





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 these questions:

**TIP:** If you're alone, reflect or journal.

What are some key ideas so far – especially about the need for installation for lasting learning?

What are some practical implications for how you do therapy?





# 2

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## The HEAL Process



# How to Take in the Good: HEAL

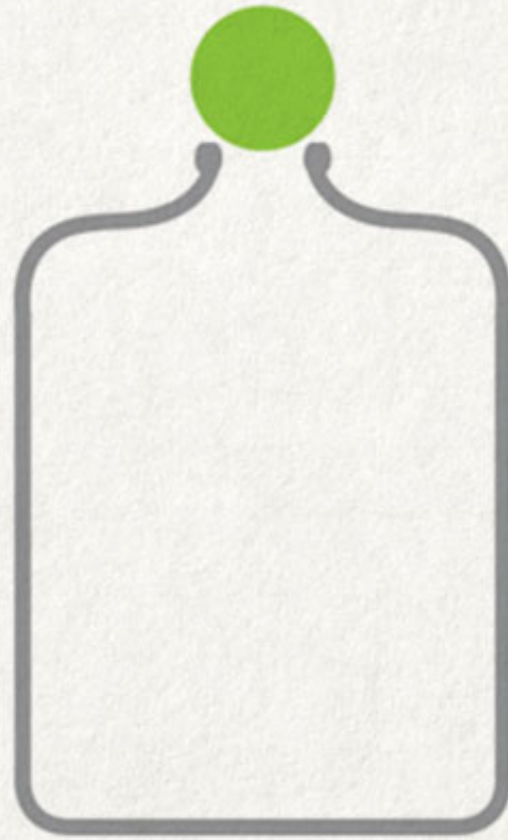
## Activation

1. **Have** a beneficial experience.

## Installation

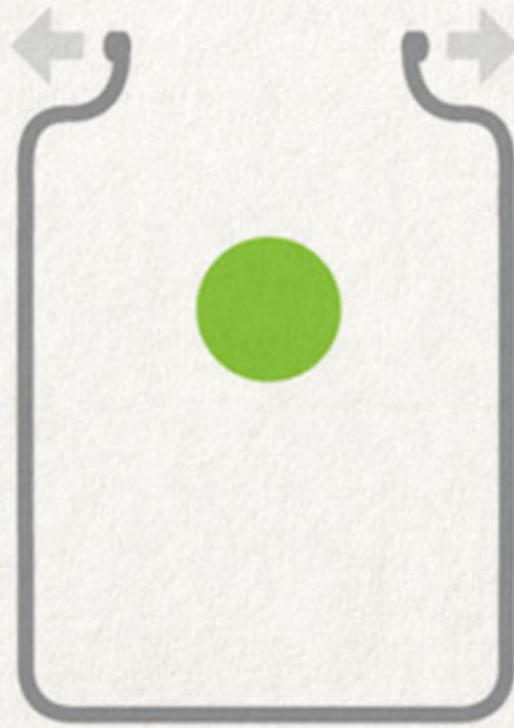
2. **Enrich** it.
3. **Absorb** it.
4. **Link** positive and negative material.  
(Optional)





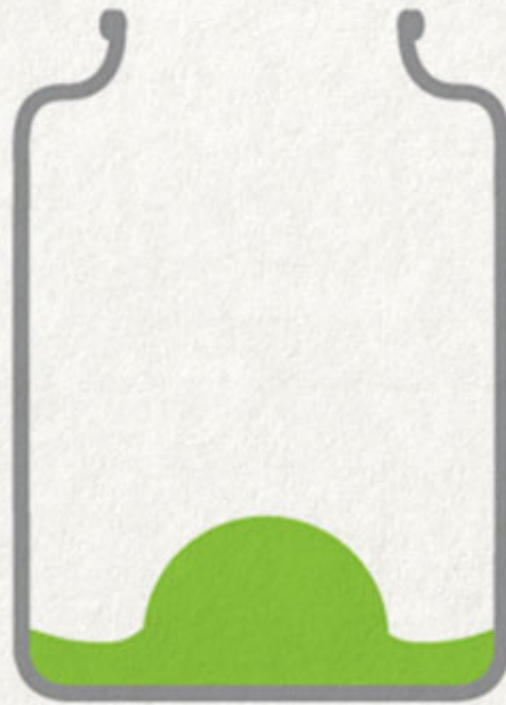
**H**ave a Beneficial Experience





**E**nrich It





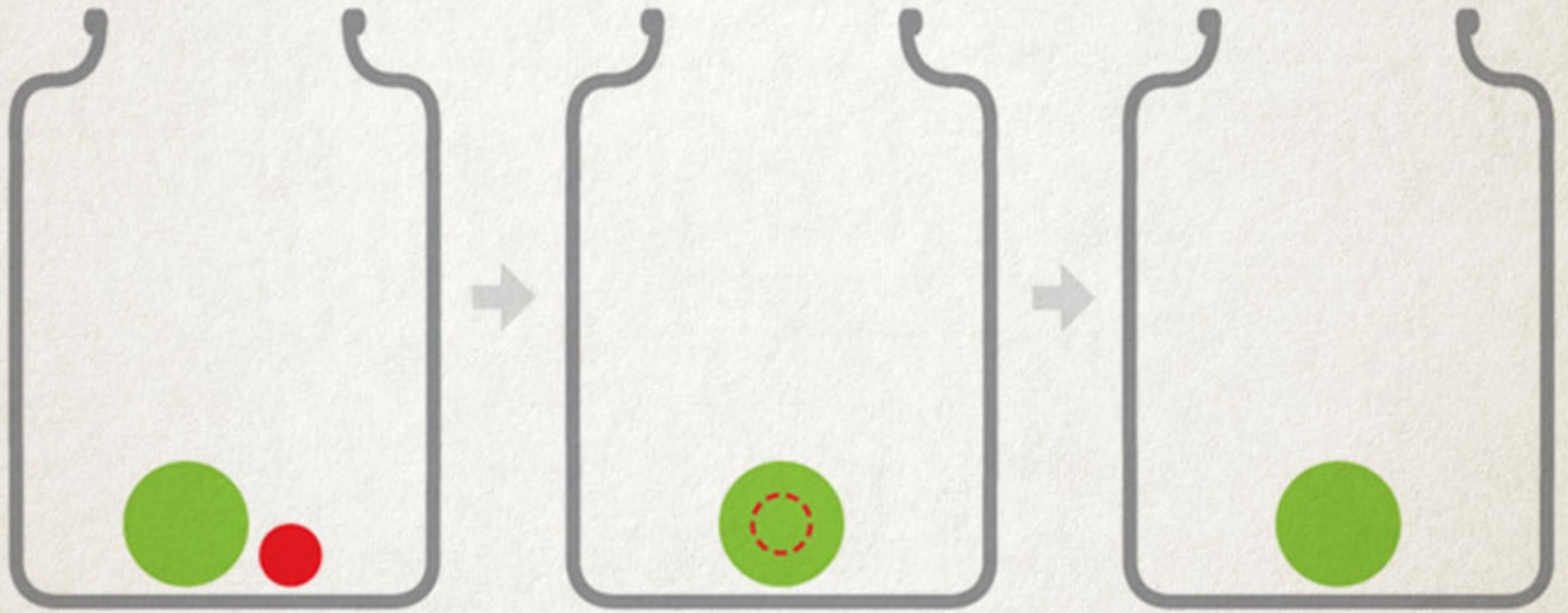
Absorb It



# Like a Nice Fire

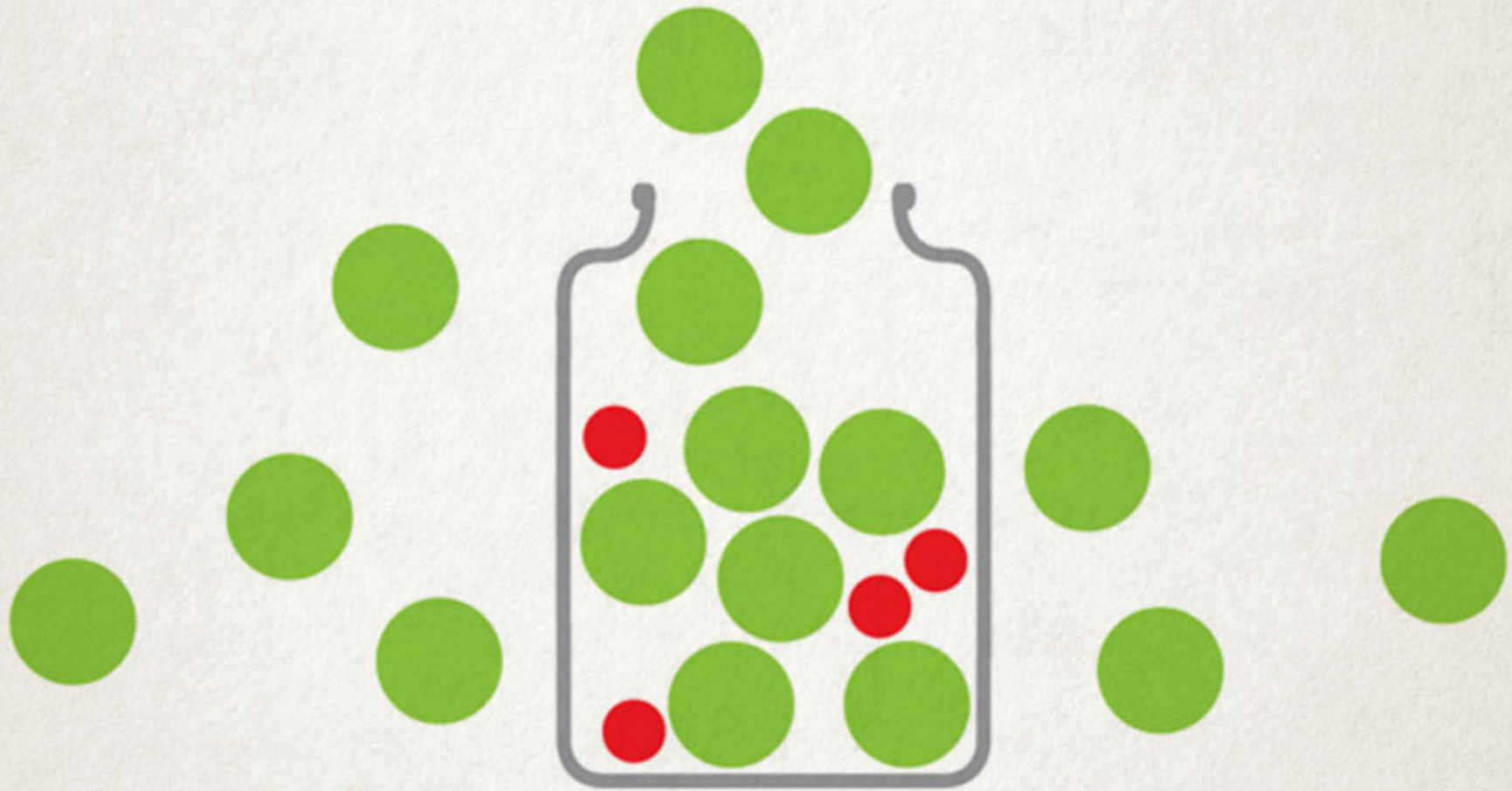






**Link** Positive & Negative Material





Have It, Enjoy It



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 systematic, explicit guidance for the **installation** phase of learning is uncommon.

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





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

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:

**TIP:** If you're alone,  
reflect or journal.

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





# 3

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Using HEAL  
With Others



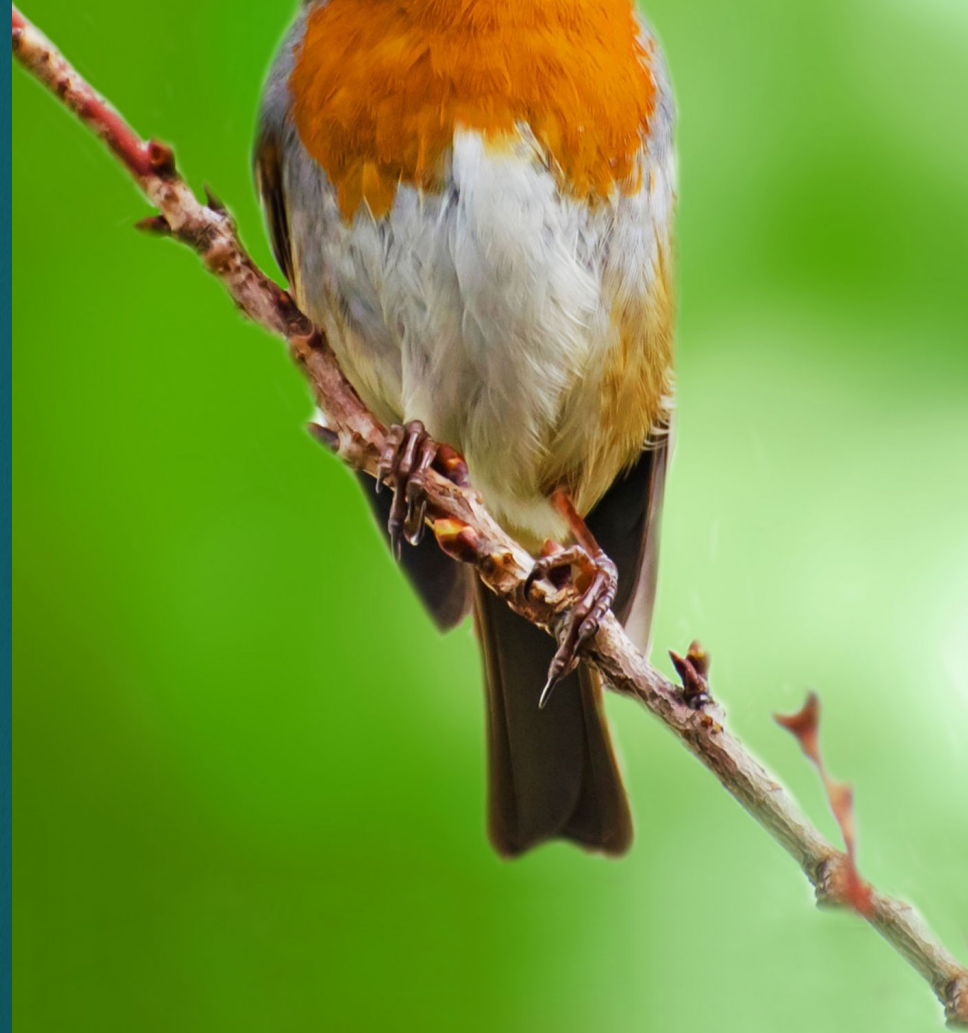
# It's Good to Take in the Good

- **Development of specific inner strengths**
  - General - resilience, positive mood, feeling loved
  - “Antidote experiences” - Healing old wounds, filling the hole in the heart
- **Implicit benefits:**
  - Shows that there is still good in the world
  - Being active rather than passive
  - Treating yourself kindly, like you matter
  - Rights an unfair imbalance, given the negativity bias
  - Training of attention and executive functions
- **Sensitizes brain to positive: like Velcro for good**



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

**Lao Tzu**





# Resources for HEAL

- Intention; willing to feel good
- Identified target experience
- Openness to the experience; embodiment
- Mindfulness of the HEAL steps to sustain them
- Working through blocks



# The Four Ways to Offer a Method

- Doing it implicitly
- Teaching it and leaving it up to the person
- Doing it explicitly with the person
- Asking the person to do it on his or her own



# Using HEAL in Trainings

- Take a few minutes to explain its rationale and teach it explicitly.
- In the flow, occasionally encourage enriching and absorbing, using natural language.
- Tell people they can use HEAL outside of class to deepen internalization of what they're learning.
- Don't use HEAL when it's inappropriate (e.g., radically choiceless awareness, highly self-critical about any kind of performance).



# Synergies of HEAL and Mindfulness

- Improved mindfulness enhances HEAL.
- HEAL increases factors of mindfulness (e.g., executive functions, self-compassion, determination, distress tolerance).
- HEAL heightens learning from mindfulness:
  - The sense of stable presence itself
  - Disidentifying from reactions
  - Deepening centeredness
  - Insight into nature of experience





# 4

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Having, Enriching, and  
Absorbing Experiences



# How to Take in the Good: HEAL

## Activation

1. **Have** a beneficial experience

## Installation

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





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# Having Beneficial Experiences

---



# Elements of Experience

## Thought

belief • perspective • expectation • image • memory • idea

## Perception

sensation (e.g., relaxation, vitality) • sight • sound • taste • smell

## Emotion

feeling • mood

## Desire

want • wish • hope • drive • motivation • purpose • dream • passion

## Action

behavior • posture • knowing how to



# The Two Ways To Have a Beneficial Experience

1

Notice one you are  
already having.

- In the foreground of awareness
- In the background

2

Create one.



It is remarkable that  
there are always beneficial aspects  
of ongoing experience.

There are always opportunities  
for internalizing  
beneficial experiences



# Feeling Basically Alright Right Now

This is a briefer version of a practice we'll be doing more deeply later on:

- Tuning into the body's signals that all is well right now
- Aware of breathing going fine . . . the heart beating . . . awareness itself keeps on going no matter what arises . . .
- Letting go of the past, not worrying about the future. Noticing that at least in this moment you are OK.
- Feeling alright sinking into places inside that haven't . . .



# How to Create A Beneficial Experience

Look for good facts in:

1. Immediate situation
2. Current or recent events
3. Stable conditions
4. Your character
5. The past
6. The future
7. Bad situations
8. The lives of others
9. Your imagination
10. Care about others
11. Directly evoke a beneficial experience
12. Produce good facts
13. Share about good facts with others



**Most of these involve**  
**(1) recognizing good facts and**  
**(2) having a good experience.**

**Both are challenging**  
**for many people.**



# Turning a Good Fact Into a Good Experience

- Bring awareness to your **body**.
- Soften and **open**.
- Be a little **active** in your mind.
- Imagine how **another person** might feel.
- Be kind to yourself, and **encourage** a good experience.





---

Find a partner, pick A and B. Go back and forth about each type of good fact (~90 sec. each), then on to the next type:

**TIP:** If you're alone, reflect or journal.

- 1. Immediate situation**
- 2. Current or recent events**
- 3. Stable conditions**
- 4. One's character**
- 5. The past**
- 6. The future**
- 7. Bad situations**
- 8. The lives of others**



# Reflections So Far

You can notice or create a beneficial experience.

There are lots of ways to create experiences.

Beneficial experiences are usually based on facts.

Recognizing good facts does not deny bad ones.

Good facts about yourself are facts like any other.





---

# Enriching Beneficial Experiences

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# How to Enrich an Experience

- **Duration** – 5+ seconds; protecting it; keeping it going
- **Intensity** – opening to it in the mind; helping it get big
- **Multimodality** – engaging multiple aspects of experience, especially perception and emotion
- **Novelty** – seeing what is fresh; “don’t know mind”
- **Salience** – seeing why this is personally relevant





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# Absorbing Beneficial Experiences

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# 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



# Absorbing an Experience

- Intend to receive the experience into yourself.
- Sense the experience sinking into you.
  - Imagery – Water into a sponge; golden dust sifting down; a jewel into the treasure chest of the heart
  - Sensation – Warm soothing balm
  - Give over to it; let it change you.
- Be aware of ways the experience is rewarding.



*The good life,  
as conceive it,  
is a happy life.  
I do not mean that  
if you are good  
you will be happy;  
I mean that  
if you are happy  
you will be good.*

**Bertrand Russell**





# Being for Yourself

- Bring to mind someone you are *for*. Find a sense of caring, support, being loyal, standing with someone as an ally. Know this stance toward someone.
- Apply this stance, this feeling, toward yourself.
- Recognizing your difficulties and burdens. Recognizing injustice applied to you. Recognizing the impacts on you.
- Finding determination that you not be mistreated, that you cope with challenges, that you be truly happy, having a good life as best you can.





---

Pick a partner  
and choose an  
A and B.

Once finished,  
find another  
partner and  
repeat.

**TIP:**

If you're alone,  
reflect or journal.

**ⓑ: Tell your partner about  
an important beneficial  
experience for you.**

**Ⓐ: Take your partner  
through the first three  
steps of HEAL.**

**ⓑ: Tell your partner  
what worked well in what  
they did.**

**Take it in! Then switch roles.**





# 5

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## Blocks to Internalizing Beneficial Experiences



# Reflection on “Blocks”

**Blocks = mental factors that reduce, derail, inhibit, or defend against mental activities that would be beneficial for a person.**

Blocks are not bad. They are normal, a means of coping, often a “solution” that once made sense but is now a “problem.”

① Explore the benefits, payoffs, functions, purpose of the block.  
“Join with the defense.”

② Then see if there might be better ways to accomplish the same purpose.



# Blocks to Any Inner Practice

- Distractibility
- Out of touch with experience
- Uncomfortable bringing attention inward
- Over-analyzing, pulling out of the experience



# Blocks to Taking in the Good

- It's hard to receive, even a good experience
- Concern you'll lose your edge; fear you'll lower your guard
- Idea that feeling good is disloyal or unfair to those who suffer
- Belief you don't deserve to feel good
- Not wanting to risk disappointment
- As a woman, socialized to make others happy, not yourself
- As a man, socialized to be stoic and not care about feelings
- You've been punished for being energized or happy
- Good things in you have been dismissed
- Positive experiences associate to negative ones
- "What's the point in feeling good, bad things will still happen"
- Payoffs in not feeling good
- Not wanting to let others off the hook
- TG is craving that leads to suffering





---

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 these questions:

**TIP:** If you're alone, reflect or journal.

For a client: What are some blocks to developing key psychological resources?

What could help the client with these blocks?



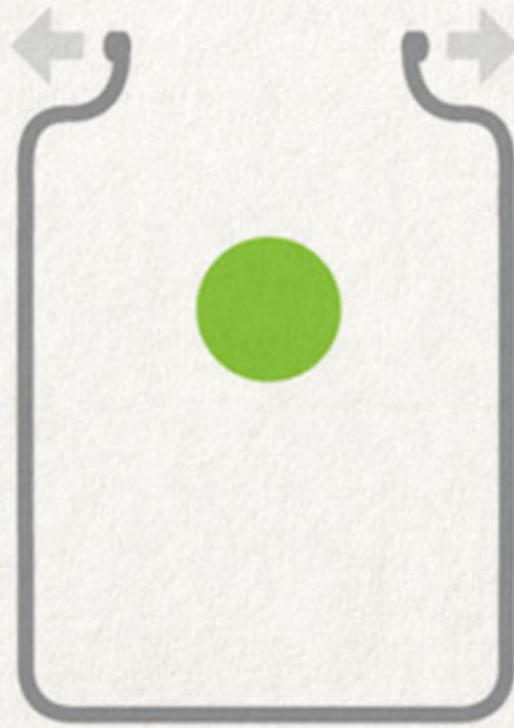


6

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Helping Others  
Enrich and Absorb





**E**nrich It



# Factors of Enriching

- **Duration** – 5+ seconds; protecting it; keeping it going
- **Intensity** – opening to it in the mind; helping it get big
- **Multimodality** – engaging multiple aspects of experience, especially perception and emotion
- **Novelty** – seeing what is fresh; “don’t know mind”
- **Salience** – seeing why this is personally relevant



**What questions do you have about:**

**Duration?**

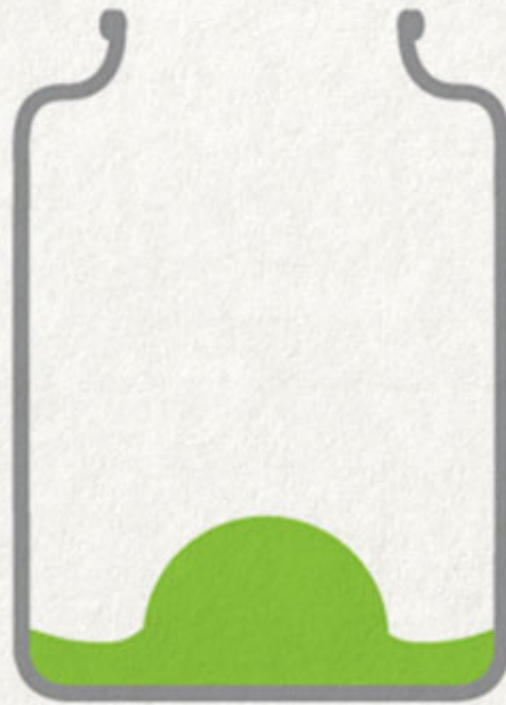
**Intensity?**

**Multimodality?**

**Novelty?**

**Salience?**





Absorb It



# 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



# Absorbing an Experience

- Intend, sense the experience is sinking into you.
  - Imagery – Water into a sponge; golden dust sifting down; a jewel into the treasure chest of the heart
  - Sensation – Warm soothing balm
- Give over to the experience; let it change you
- Let go of resisting, grasping, clinging: “craving”





Pick a new partner and choose an A and B.

Once finished, find another partner and

**TIP:**

If you're alone, reflect or journal.

**ⓑ:** Tell your partner about an important beneficial experience for you.

**Ⓐ:** Take your partner through the first three steps of HEAL.

**ⓑ:** Tell your partner what worked well in what they did.

**Take it in! Then switch roles.**





7

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Key Inner Resources



# Our Three Fundamental Needs



**safety**



**satisfaction**



**connection**



# Needs Activated by...



## Safety

Unpleasant  
Pain  
Threat



## Satisfaction

Pleasant  
Opportunity  
Loss



## Connection

Heartfelt  
Attraction  
Rejection



# Needs Met by Three Systems



**Safety**

**Avoiding**  
harms



**Satisfaction**

**Approaching**  
rewards

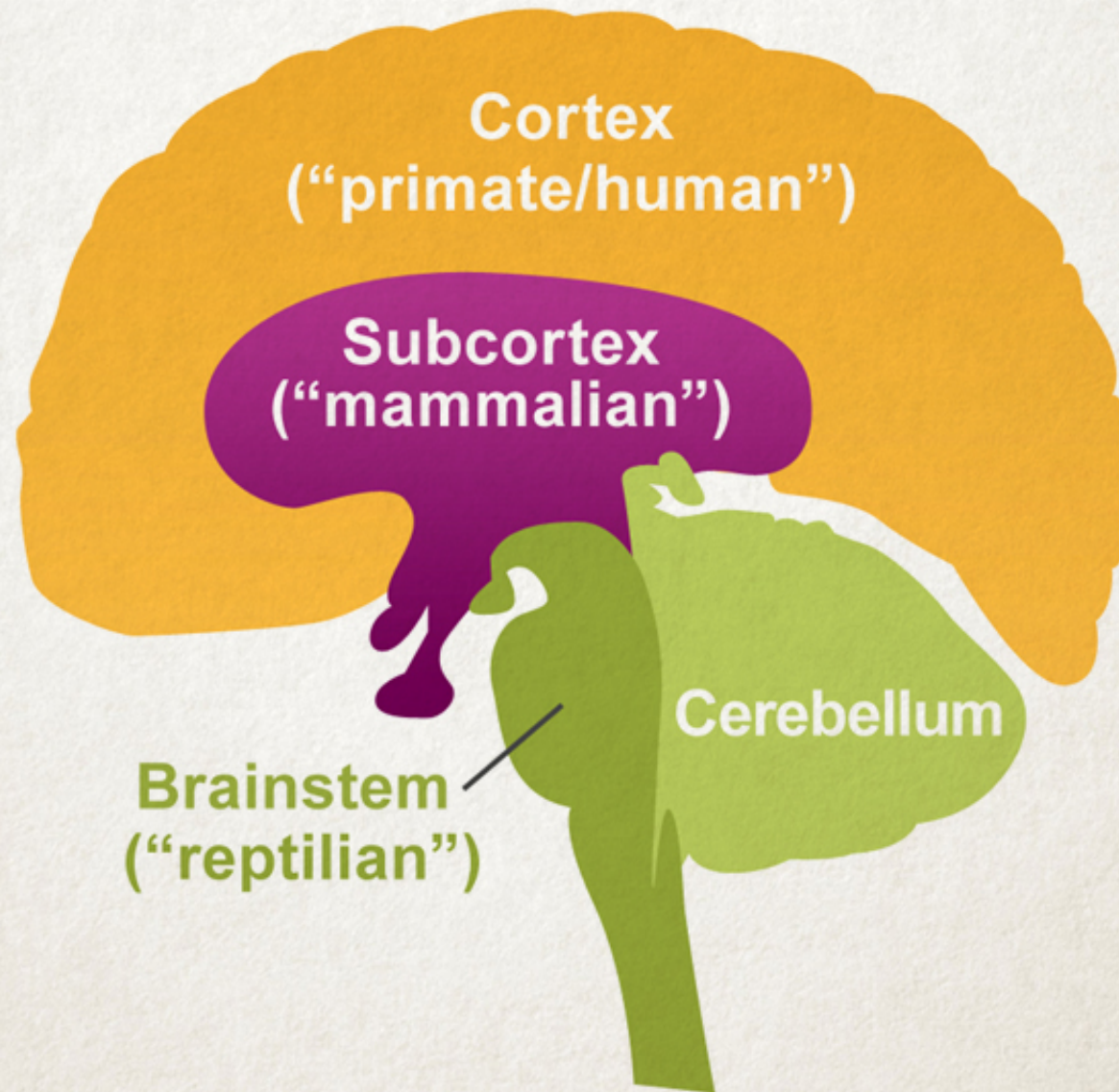


**Connection**

**Attaching**  
to others



# The Evolving Brain





# 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.



# Can You Stay in the Green Zone When:

Things are  
unpleasant?

Things are  
pleasant?

Things are  
heartfelt?



# Resources for Avoiding Harms

## Challenge

**Weakness**

**Helplessness**

**Freezing**

**Inflated threats**

**Alarm**

**Tension**

**Dread**

**Confusion, overwhelm**

**Irritation, anger**

## Resource

**Strength**

**Agency**

**Action, venting**

**Accurate appraisal**

**Protection, calming**

**Relaxation**

**Feeling alright now**

**Make a plan**

**Big picture, peace**



# Resources for Approaching Rewards

## Challenge

**What I don't have**

**Scarcity**

**Disappointed, sad**

**Frustration, failure**

**Bored, numb**

**Grief**

**Giving up**

**Drivenness**

## Resource

**What I do have**

**Enoughness**

**Gratitude, gladness**

**Accomplishment**

**Pleasure, excitement**

**Loved and loving**

**Aspire, lived by good**

**Already satisfied**



# Resources for Attaching to Others

## Challenge

Left out, excluded

Inadequacy, shame

Ignored, unseen

Lonely

Resentment

Envy, jealousy

Feeling stifled

## Resource

Belonging, wanted

Appreciated, respected

Receiving empathy

Friendship, caring

Recognize it hurts you

Self-compassion,  
take action, good will

Skillful assertiveness



# 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.



# Coming Home, Staying Home

Meeting your core needs brings you home to the **Responsive** “green zone.”

Taking in the good Responsive states grows Responsive traits. In a wonderful cycle, these traits promote good states – which can strengthen your Responsive traits.

Responsive states and traits help you stay Responsive when the world is flashing red.





# Pet the Lizard





# Feed the Mouse





# Hug the Monkey





# Coming Home

**Peace**

**Contentment**

**Love**



# Questions for Identifying Resources

- What would have made all the difference in the world – in your childhood, first job, last relationship, etc.? (Focus on the **experience** of state or trait that would have resulted from better relationships, settings, events.)
- What does your heart still long for?
- What's happening inside you when you are in a really good place?
- What's happening in the mind of someone you know who handles your issue well?





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Find a new partner, pick an A and B.

**TIP:**

If you're alone, reflect or journal.

**A's guide B's: What is a challenge? What is a key inner strength that could help? How could you have and take in experiences of it in your life?**

**A's guide B's through HEA steps for this strength.**

**B's tell A's what worked.**

**Switch roles.**





---

Find a new partner, pick an A and B.

**TIP:**

If you're alone, reflect or journal.

**A's guide B's: What is an internal issue? What is a key inner strength that could help? How could you have and take in experiences of it in your life?**

**A's guide B's through HEA steps for this strength.**

**B's tell A's what worked.**

**Switch roles.**



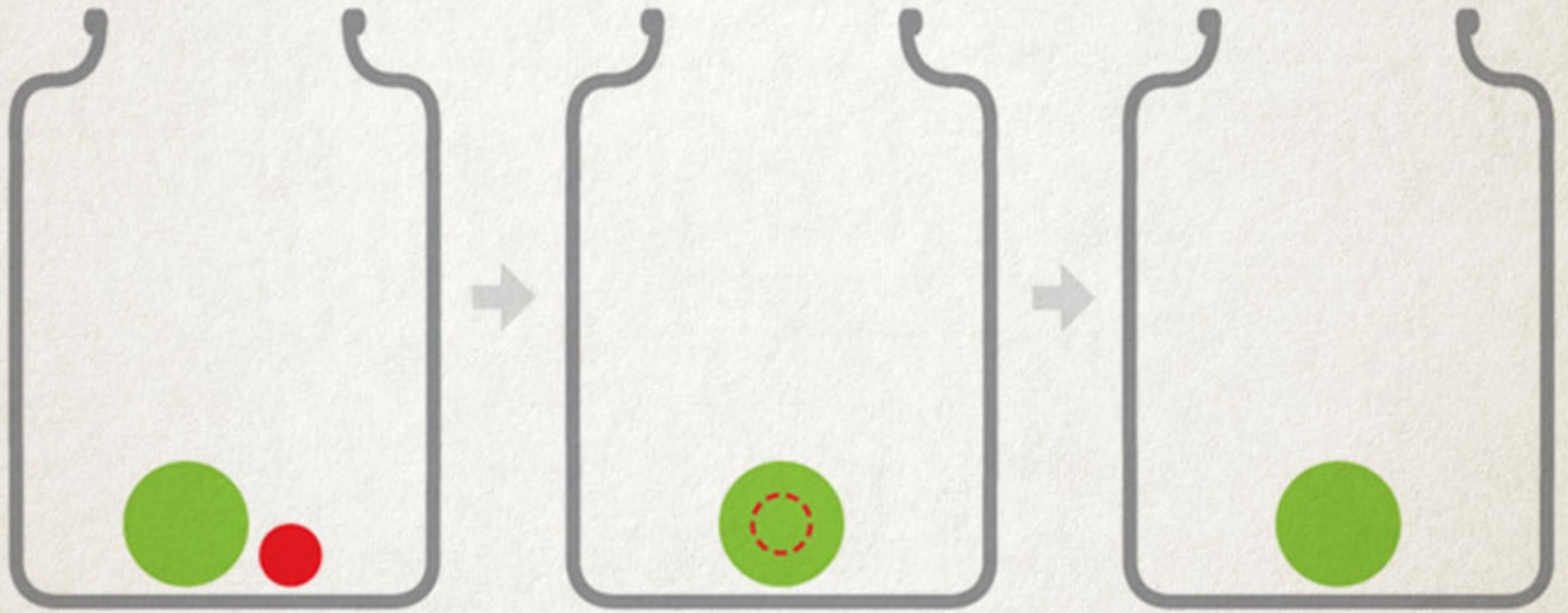


# 8

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Using Positive Material to  
Address Negative Material





**Link** Positive & Negative Material



# What is “negative material?”

**Painful, harmful thoughts,  
perceptions, emotions,  
desires, and actions**

**Foreground of awareness**

**Background of awareness**

**Unconscious**



# How Linking Works

- Activated negative material associates to whatever is also present in awareness.
- When negative material leaves awareness, these associations are reconsolidated in memory.
- This means that positive material can soothe, ease, put in perspective, and even replace negative material.
- Examples: pain held in spacious awareness; telling a friend about a problem; self-compassion for an upset; feeling cared about alongside feeling hurt



# Conditions for the Link Step

- Divided awareness;  
holding two things at once
- Not hijacked by negative;  
if so, drop negative
- Positive material is more  
prominent in awareness.



# 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.



# Skills with the 4<sup>th</sup> Step

- Be on your own side; you want the positive to win. Perhaps imagine inner allies with you.
- Be resourceful. It's OK to be creative, even playful.
- If the negative gets too strong, drop it; return to positive.
- Get a sense of receiving the positive into the negative.
- End with just the positive.
- Start with positive or negative material.





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Find a new partner, pick an A and B.

**TIP:**

If you're alone, reflect or journal.

Role play one partner explaining to the other one:  
**What is Linking and how to do it?**

A's set up the roles, and begin.

B's tell A's what worked. Then say what was not so clear to you.

**Switch roles.**





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Same partner.  
A's guide B's  
explicitly through  
HEAL, especially  
Linking. Keep it  
real.

**TIP:**

If you're alone,  
reflect or journal.

**First, B's briefly describe  
the positive and negative  
(mild to moderate)  
material.**

**Then do HEAL as a direct  
guided practice, 5 min.**

**B's say what worked.  
And any suggestions.**

**Switch roles.**



# The Tip of the Root

In the fourth step of TG, you could try to get at the youngest, most vulnerable layer of painful material.

The “tip of the root” is commonly in childhood. The brain is generally more affected by the negative experiences that occur in early childhood than by ones occurring later in life.

## Prerequisites:



1

Understanding the  
need to get at  
younger layers

2

Compassion and  
support for the  
inner child

3

Capacity to “presence”  
young material  
without flooding





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Pick a new partner. Take turns, with one partner guiding the other one.

**TIP:**  
If you're alone,  
reflect or journal.

**This is a longer, naturalistic exploration, 20 min. each way.**

**Try to get at key aspects of the negative material plus key mental resources that could help.**

**Do HEAL informally or formally along the way.**

**Debrief a few minutes.  
Switch Roles.**





**How was that?**

**What went well?**

**What questions do you have?**





# 9

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## Inner Resources Matched to Challenges





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# Safety

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# Reflections on Fear

- Fear is normal. Avoiding harms is fundamental.
- Much anxiety is unnecessary and unreasonable.
- We tend to overestimate threats and underestimate opportunities and resources.
- People can be afraid . . . to give up fear.
- Remember that you can give up unnecessary anxiety and still remain appropriately cautious, watchful, and strong.



# 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 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.





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Find a partner.  
A's guide B's  
explicitly through  
HEAL, especially  
Linking. Keep it  
real.

**TIP:**

If you're alone,  
reflect or journal.

**For yourself or a client, B's  
describe positive and  
negative (mild to moderate)  
material related to safety.**

**Then do HEAL as a direct  
guided practice, 5 min.**

**B's say what worked.  
And any suggestions.**

**Switch roles.**





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# Satisfaction

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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:

**TIP:** If you're alone, reflect or journal.

What are some of the things you have **accomplished** in your life?

*(Including lots of seemingly small things)*

Take in your partner's recognition of 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.





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# Connection

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# Self-Compassion

Compassion is the wish that beings not suffer, with warm-hearted concern. Compassion is sincere even if we can't make things better.

Self-compassion simply applies this to oneself.

## To encourage self-compassion:

**1**

Get the sense of being cared about.

**2**

Bring to mind beings you care about. Find compassion for them.

**3**

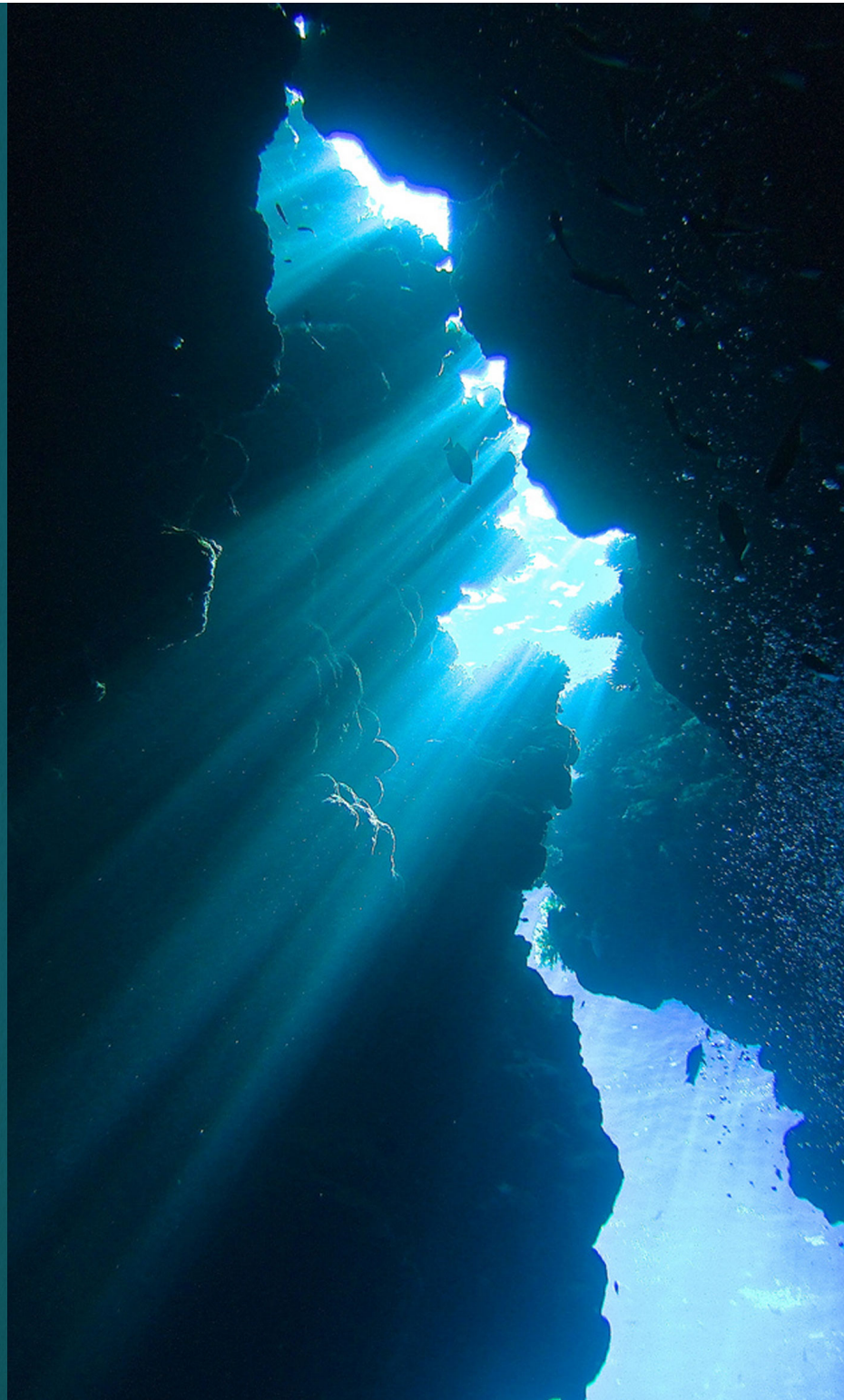
Shift the compassion to yourself.



# “Anthem”

*Ring the bells that can still 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**







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Find a partner.  
A's guide B's  
explicitly through  
HEAL, especially  
Linking. Keep it  
real.

**TIP:**

If you're alone,  
reflect or journal.

**For yourself or a client, B's  
describe positive and  
negative (mild to moderate)  
material related to  
connection.**

**Then do HEAL as a direct  
guided practice, 5 min.**

**B's say what worked.  
And any suggestions.**

**Switch roles.**





# 10

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## Applications of the HEAL Process



# 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 <sub>(1)</sub>

## 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 Client Motivation

- During therapy and between sessions, HEAL:
  - Key resource experiences
  - When learning from therapy works well
  - When realistic views of you, the world, etc. come true
  - Good qualities in yourself
  - New insights
- Can be formalized in daily reflections, journaling



# 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.



# 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





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Pick a partner, choose  
A and B (A's go first).

**Take turns  
talking about  
using HEAL  
with 2-3  
different adults.**

**TIP:** If you're alone,  
reflect or journal.





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# Using HEAL with Children

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# 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





10

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Wrapping Up





**What did you get  
out of this training  
personally?**

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 these questions:

**How do you hope  
to apply it  
professionally?**

**TIP:** If you're alone,  
reflect or journal.



# In the Days Ahead

- Make taking in the good an informal daily habit.
- At the end of any formal practices – meditation, exercise, journaling, prayer, yoga, walking the dog – take a few moments to take in the benefits,
- Know what your current “vitamin C” is – and look for opportunities to feel it and internalize it,
- Reset to “deep green” – in peace, contentment, and love – every day.



# Societal Implications of Positive Neuroplasticity

- For most of the time our human and hominid ancestors have lived, it was not possible to meet the core needs of everyone. But now the resources and know-how exist to do this. How we handle this unprecedented opportunity will be the central theme of this century.
- Improving external conditions is vital – but not enough. Many affluent people dwell in anxiety and anger, frustration and drivenness, and hurt and ill will.
- Repeatedly internalizing Responsive experiences develops a “green brain” that is harder to manipulate with threats and fear, greed and consumerism, and “us” vs. “them” rivalries. A critical mass of “green brains” will bring a tipping point that changes the course of human history.



# Coming Home

**Peace**

**Contentment**

**Love**

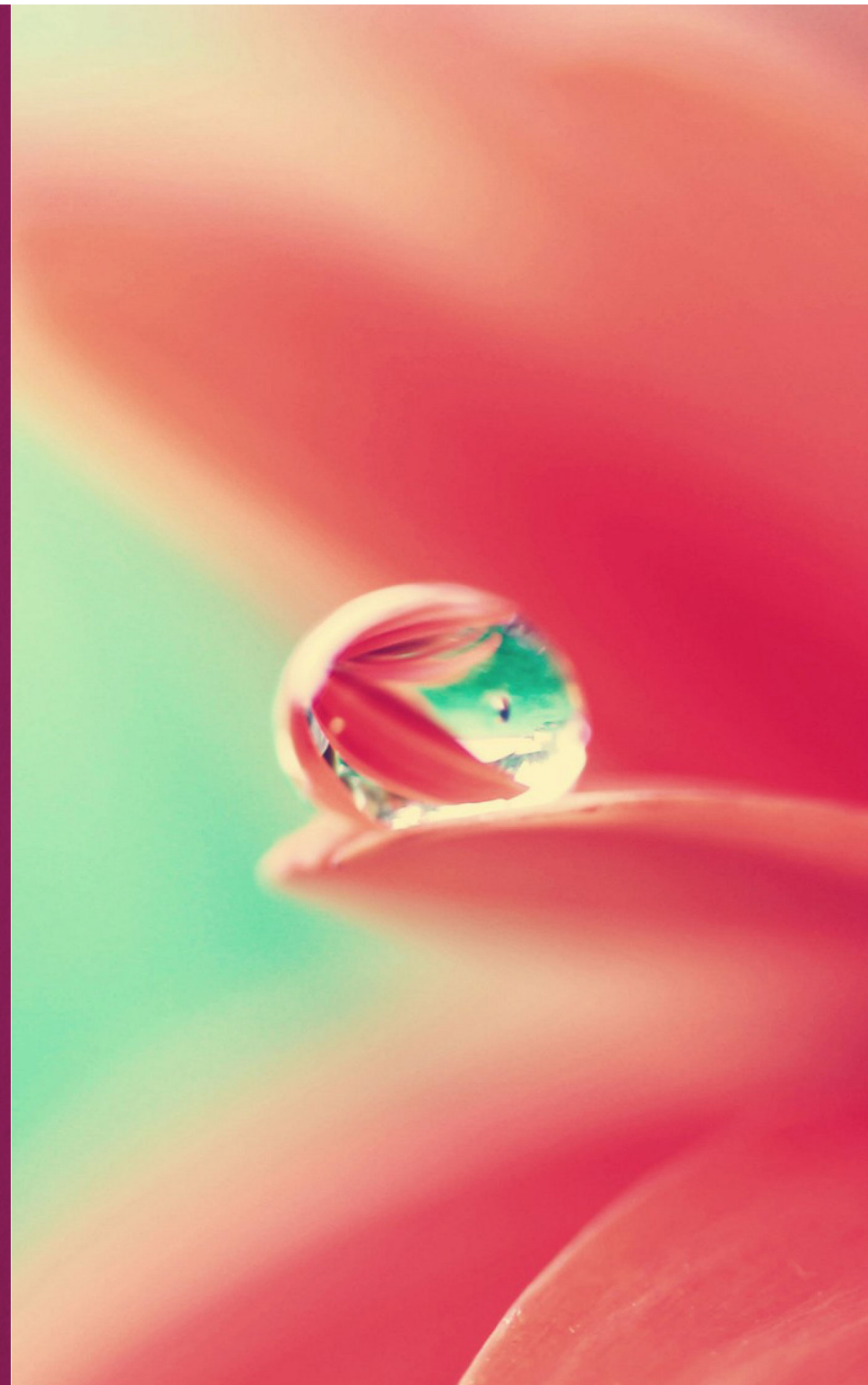


*Think not lightly of good,  
saying,  
“It will not come to me.”*

*Drop by drop is  
the water pot filled.*

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

**Dhammapada 9.122**





# Suggested Books

See **[RickHanson.net](http://RickHanson.net)** for other great books.

- Austin, J. 2009. *Selfless Insight*. MIT Press.
- Begley, S. 2007. *Train Your Mind, Change Your Brain*. Ballantine.
- Carter, C. 2010. *Raising Happiness*. Ballantine.
- Hanson, R. (with R. Mendius). 2009. *Buddha's Brain: The Practical Neuroscience of Happiness, Love, and Wisdom*. New Harbinger.
- Johnson, S. 2005. *Mind Wide Open*. Scribner.
- Keltner, D. 2009. *Born to Be Good*. Norton.
- Kornfield, J. 2009. *The Wise Heart*. Bantam.
- LeDoux, J. 2003. *Synaptic Self*. Penguin.
- Linden, D. 2008. *The Accidental Mind*. Belknap.
- Sapolsky, R. 2004. *Why Zebras Don't Get Ulcers*. Holt.
- Siegel, D. 2007. *The Mindful Brain*. Norton.
- Thompson, E. 2007. *Mind in Life*. Belknap.



# Key Papers – 1

See [RickHanson.net](http://RickHanson.net) for other scientific papers.

- Atmanspacher, H. & Graben, P. 2007. Contextual emergence of mental states from neurodynamics. *Chaos & Complexity Letters*, 2:151-168.
- Baumeister, R., Bratlavsky, E., Finkenauer, C. & Vohs, K. 2001. Bad is stronger than good. *Review of General Psychology*, 5:323-370.
- Braver, T. & Cohen, J. 2000. On the control of control: The role of dopamine in regulating prefrontal function and working memory; in *Control of Cognitive Processes: Attention and Performance XVIII*. Monsel, S. & Driver, J. (eds.). MIT Press.
- Carter, O.L., Callistemon, C., Ungerer, Y., Liu, G.B., & Pettigrew, J.D. 2005. Meditation skills of Buddhist monks yield clues to brain's regulation of attention. *Current Biology*. 15:412-413.



# Key Papers – 2

- Davidson, R.J. 2004. Well-being and affective style: neural substrates and biobehavioural correlates. *Philosophical Transactions of the Royal Society*. 359:1395-1411.
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- Hanson, R. 2008. Seven facts about the brain that incline the mind to joy. In *Measuring the immeasurable: The scientific case for spirituality*. Sounds True.



# Key Papers – 3

- Lazar, S., Kerr, C., Wasserman, R., Gray, J., Greve, D., Treadway, M., McGarvey, M., Quinn, B., Dusek, J., Benson, H., Rauch, S., Moore, C., & Fischl, B. 2005. Meditation experience is associated with increased cortical thickness. *Neuroreport*. 16:1893-1897.
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- Lieberman, M.D. & Eisenberger, N.I. 2009. Pains and pleasures of social life. *Science*. 323:890-891.
- Lutz, A., Greischar, L., Rawlings, N., Ricard, M. and Davidson, R. 2004. Long-term meditators self-induce high-amplitude gamma synchrony during mental practice. *PNAS*. 101:16369-16373.
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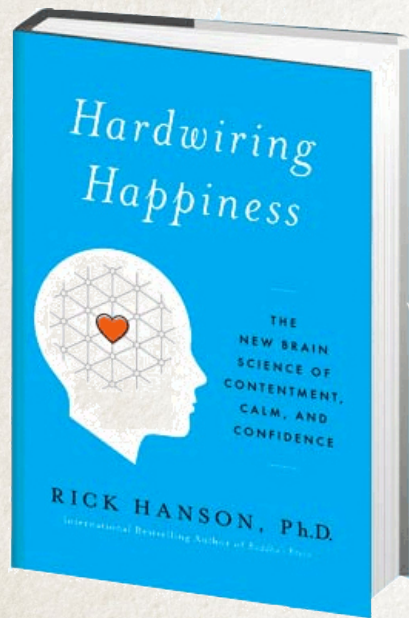


# Key Papers – 4

- Rozin, P. & Royzman, E.B. 2001. Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5:296-320.
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- Walsh, R. & Shapiro, S. L. 2006. The meeting of meditative disciplines and Western psychology: A mutually enriching dialogue. *American Psychologist*, 61:227-239.



# Where to Find Rick Hanson Online



## ***Hardwiring Happiness: The New Brain Science of Contentment, Calm, and Confidence***

[www.rickhanson.net/hardwiringhappiness](http://www.rickhanson.net/hardwiringhappiness)

Personal website: [\*\*www.rickhanson.net\*\*](http://www.rickhanson.net)

Wellspring Institute: [\*\*www.wisebrain.org\*\*](http://www.wisebrain.org)



[youtube.com/drrhanson](https://youtube.com/drrhanson)



[facebook.com/rickhansonphd](https://facebook.com/rickhansonphd)