

Walking Evenly Over Uneven Ground: Using Positive Neuroplasticity to Cultivate Resilient Well-Being



True North Insight
Montreal, April 21, 2018

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Resilience and Well-Being



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

It helps you survive
the worst day of your life and
thrive every day of your life.



Lasting well-being
in a changing world
requires resilience.

Resilience requires
mental resources.



Mental Resources Make Us Resilient

Some Mental Resources

Executive Functions

Character Strengths

Secure Attachment

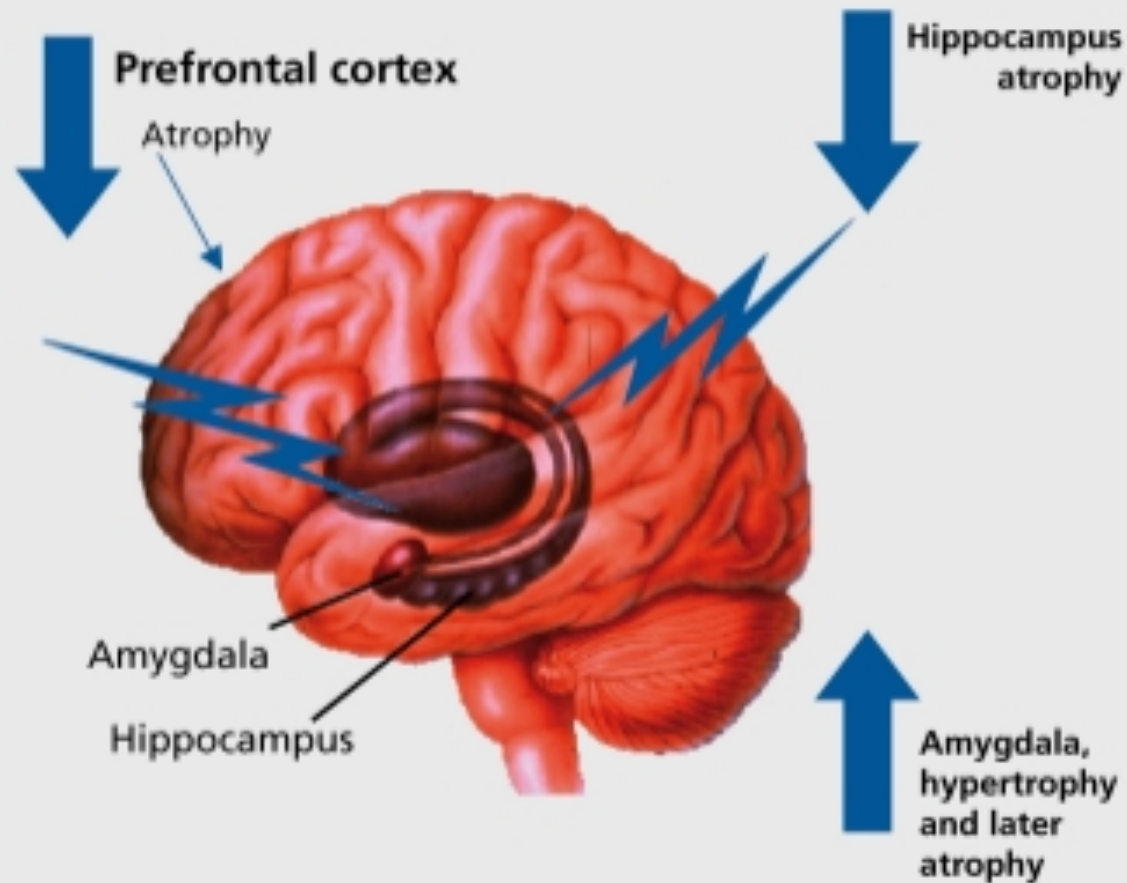
Positive Emotions

Interpersonal Skills

Patience, Determination, Grit

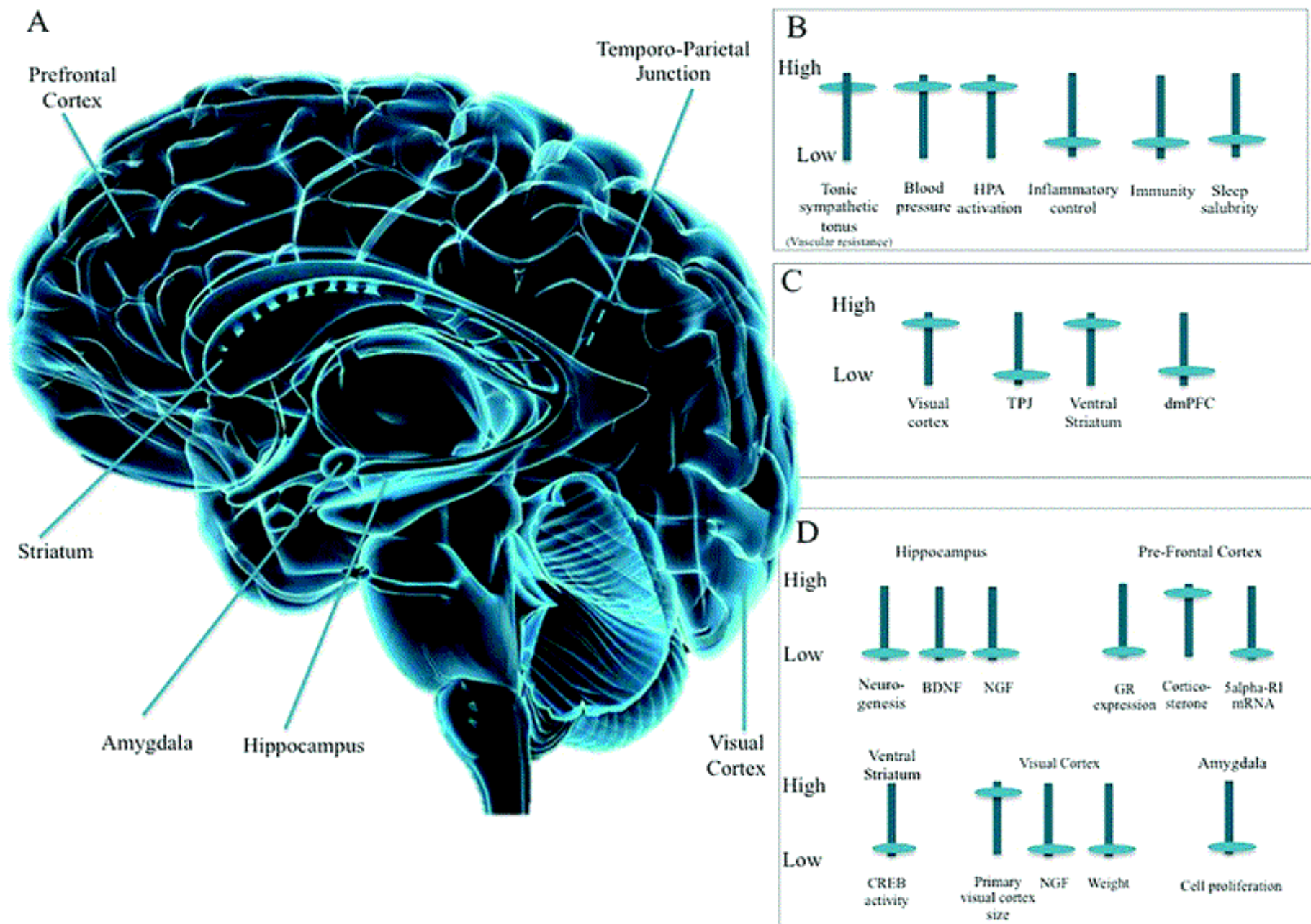


The brain under stress: structural remodeling

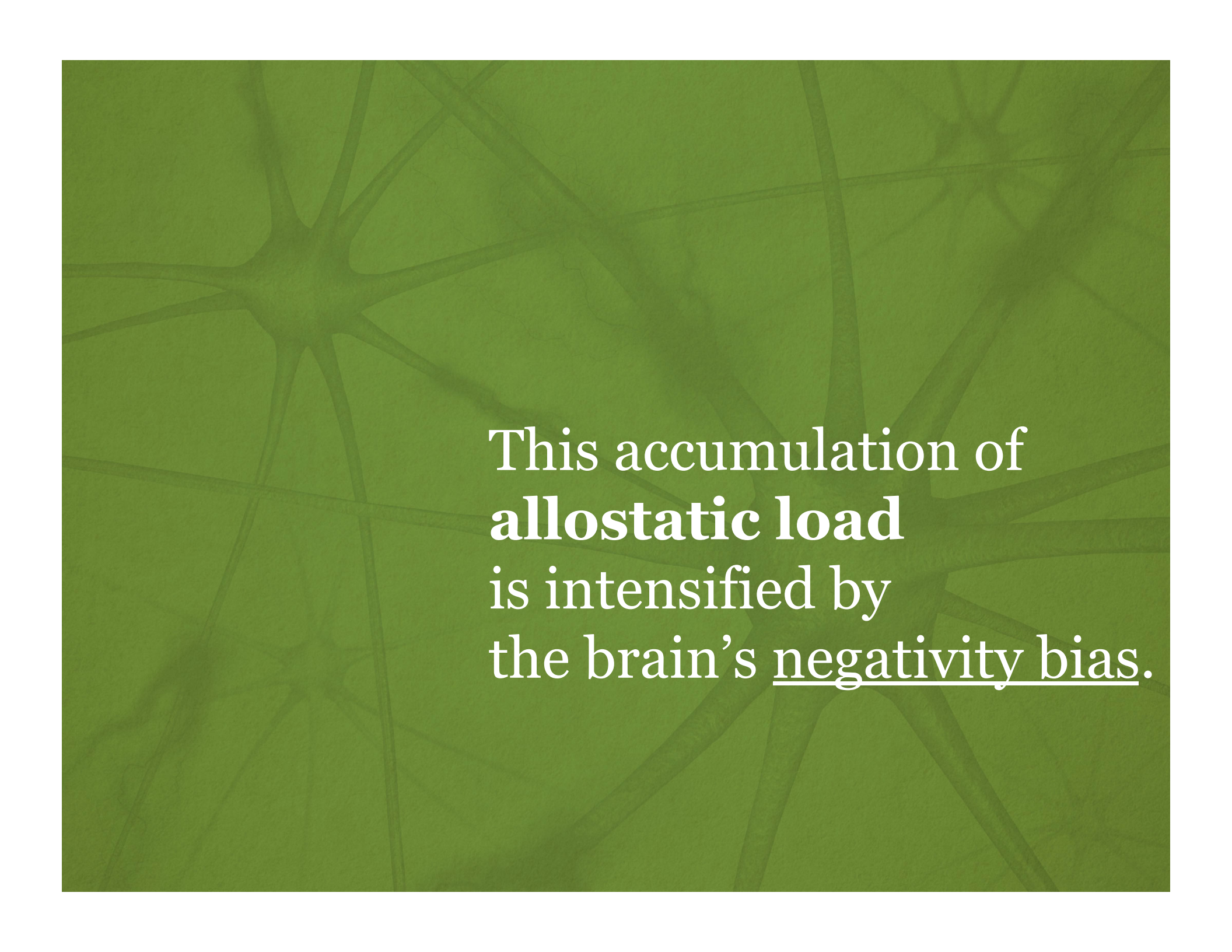


How stress changes the brain

McEwen, 2006. Dialogues in Clinical Neuroscience, 8:367-381



Cacioppo et al. (2014) Toward a neurology of loneliness. *Psychological Bulletin*.



This accumulation of
allostatic load
is intensified by
the brain's negativity bias.

The Negativity Bias

As the nervous system evolved, **avoiding “sticks”** was usually more consequential than getting “carrots.”

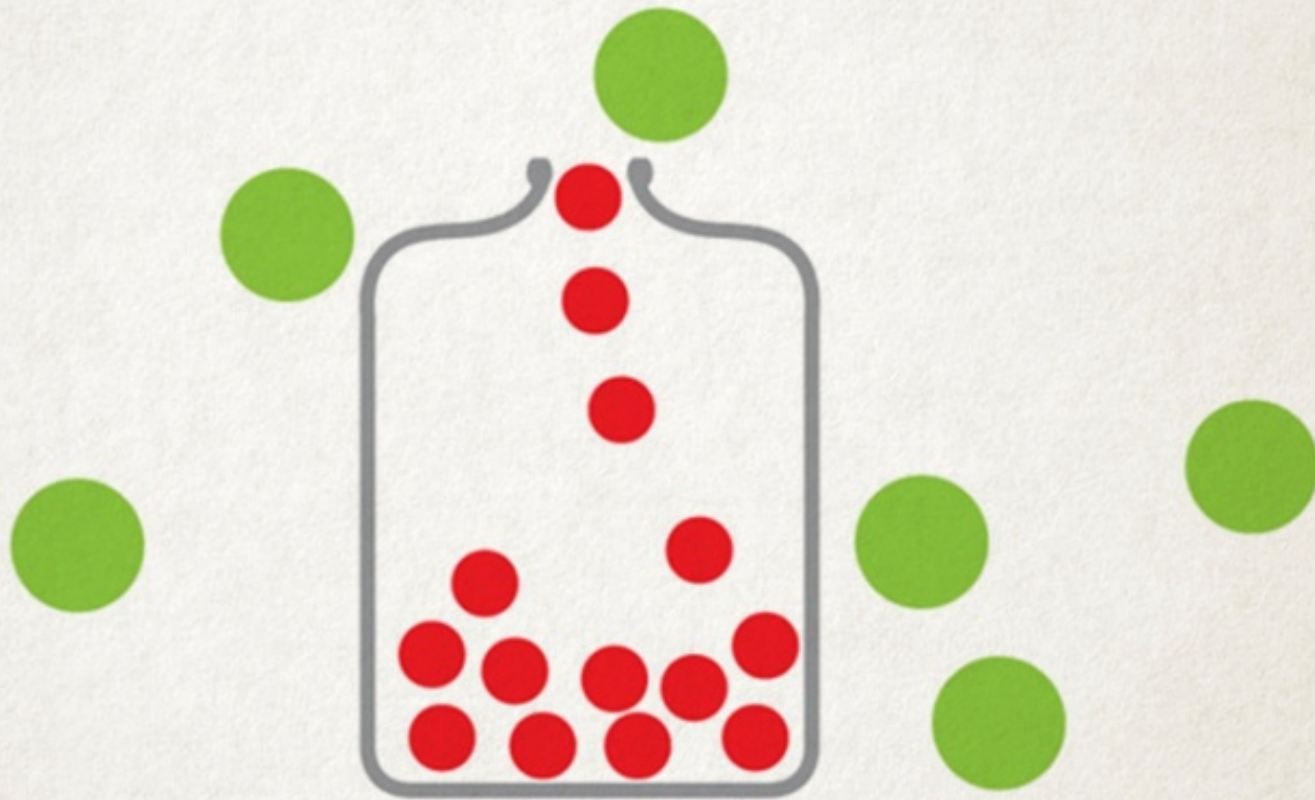
1. So we scan for bad news,
2. Over-focus on it,
3. Over-react to it,
4. Turn it quickly into (implicit) memory,
5. Sensitize the brain to the negative, and
6. Create vicious cycles with others.

Velcro for Bad, Teflon for Good

The negativity bias

bad experiences

good experiences

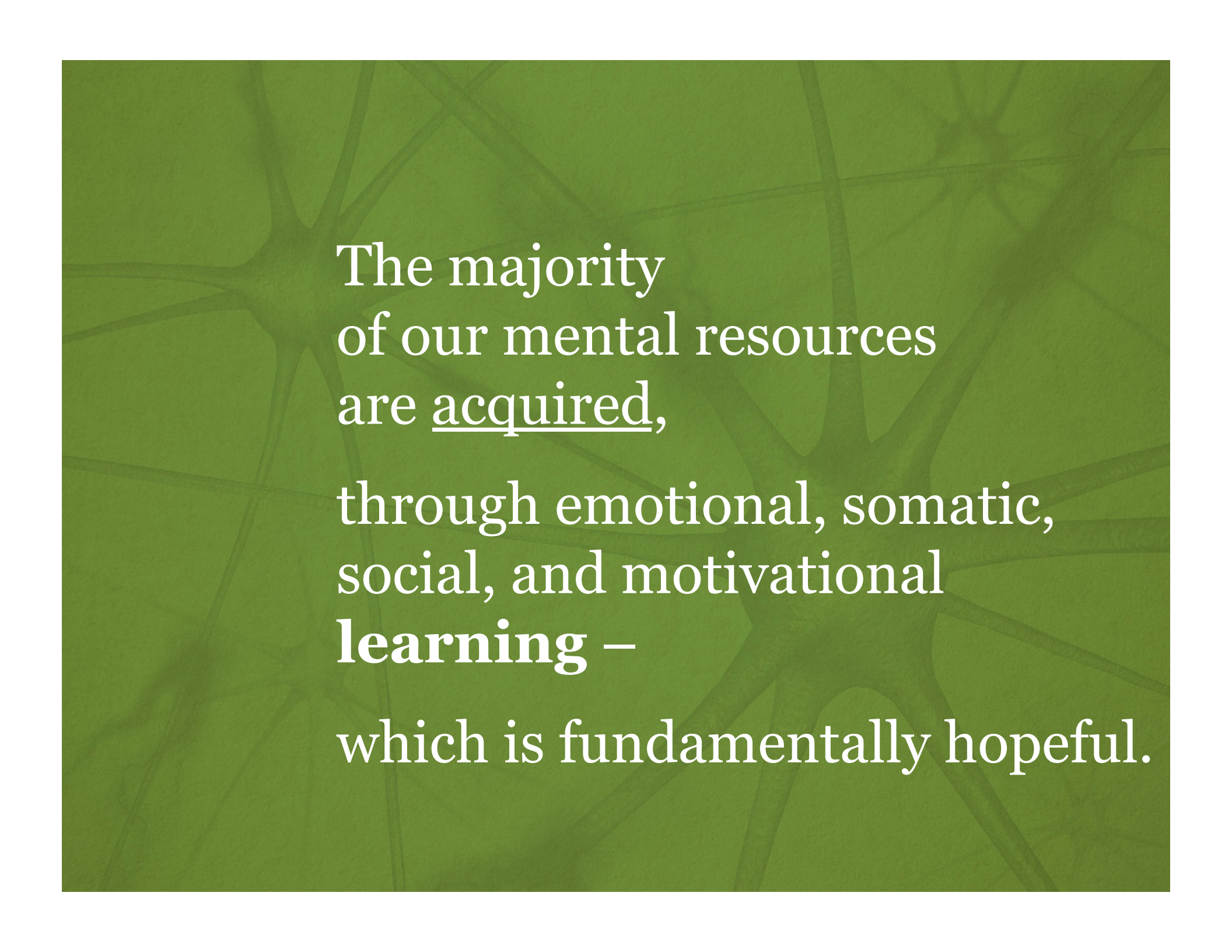


The Negativity Bias

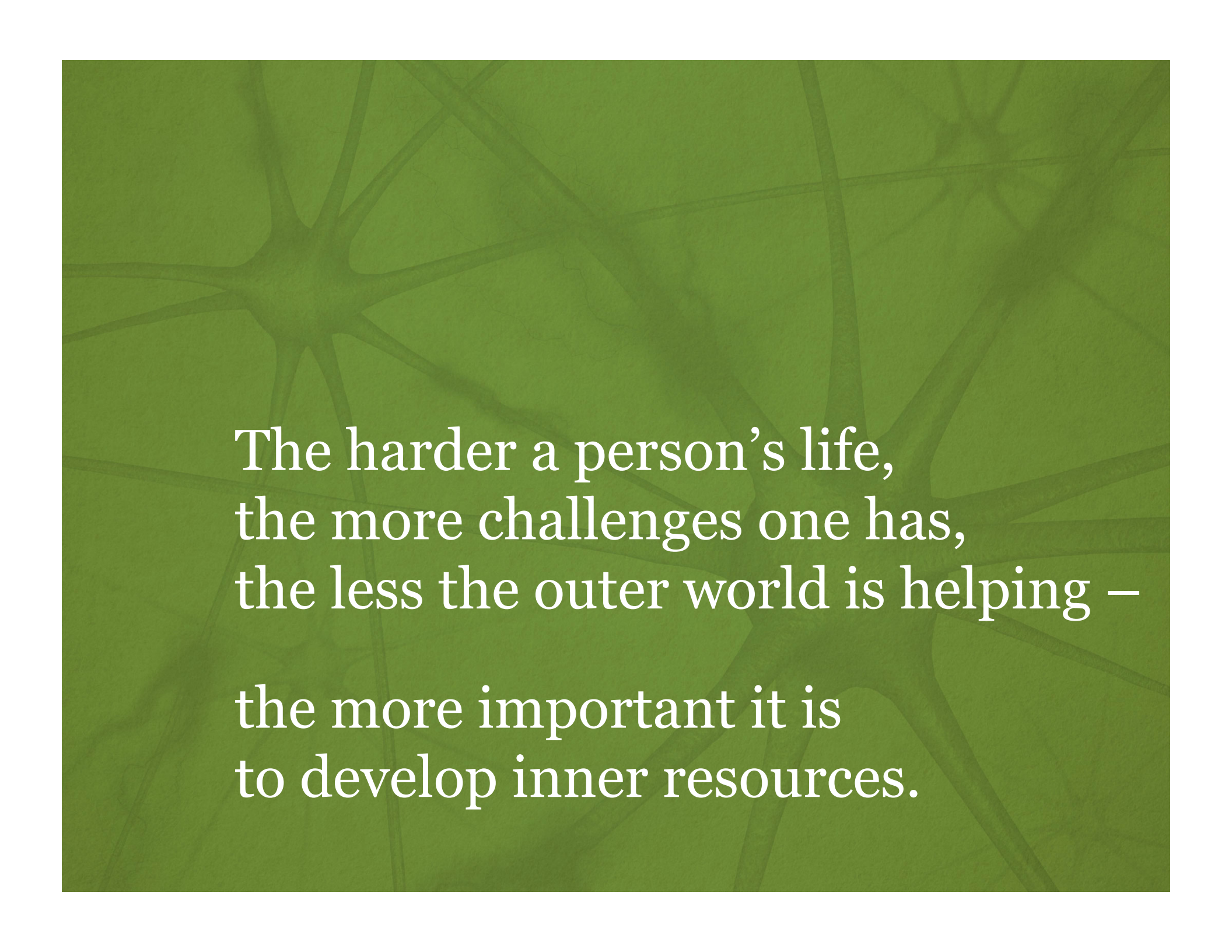
Mental resources are good,
period, plus they're eroded by
the stresses we need them for.

So, how do we get them?

People focus on identifying and
using resources such as
character strengths – but what
about **developing** them in the
first place?

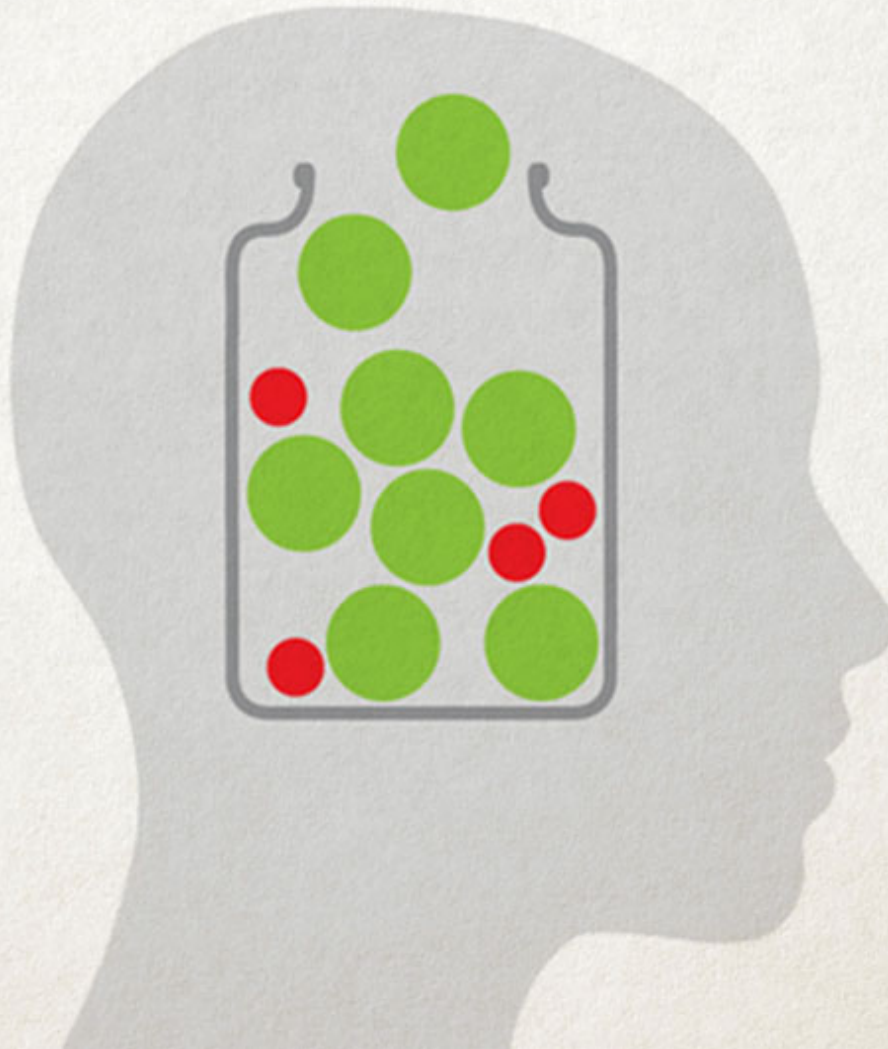


The majority
of our mental resources
are acquired,
through emotional, somatic,
social, and motivational
learning –
which is fundamentally hopeful.



The harder a person's life,
the more challenges one has,
the less the outer world is helping –
the more important it is
to develop inner resources.

Which Means Changing the Brain For the Better



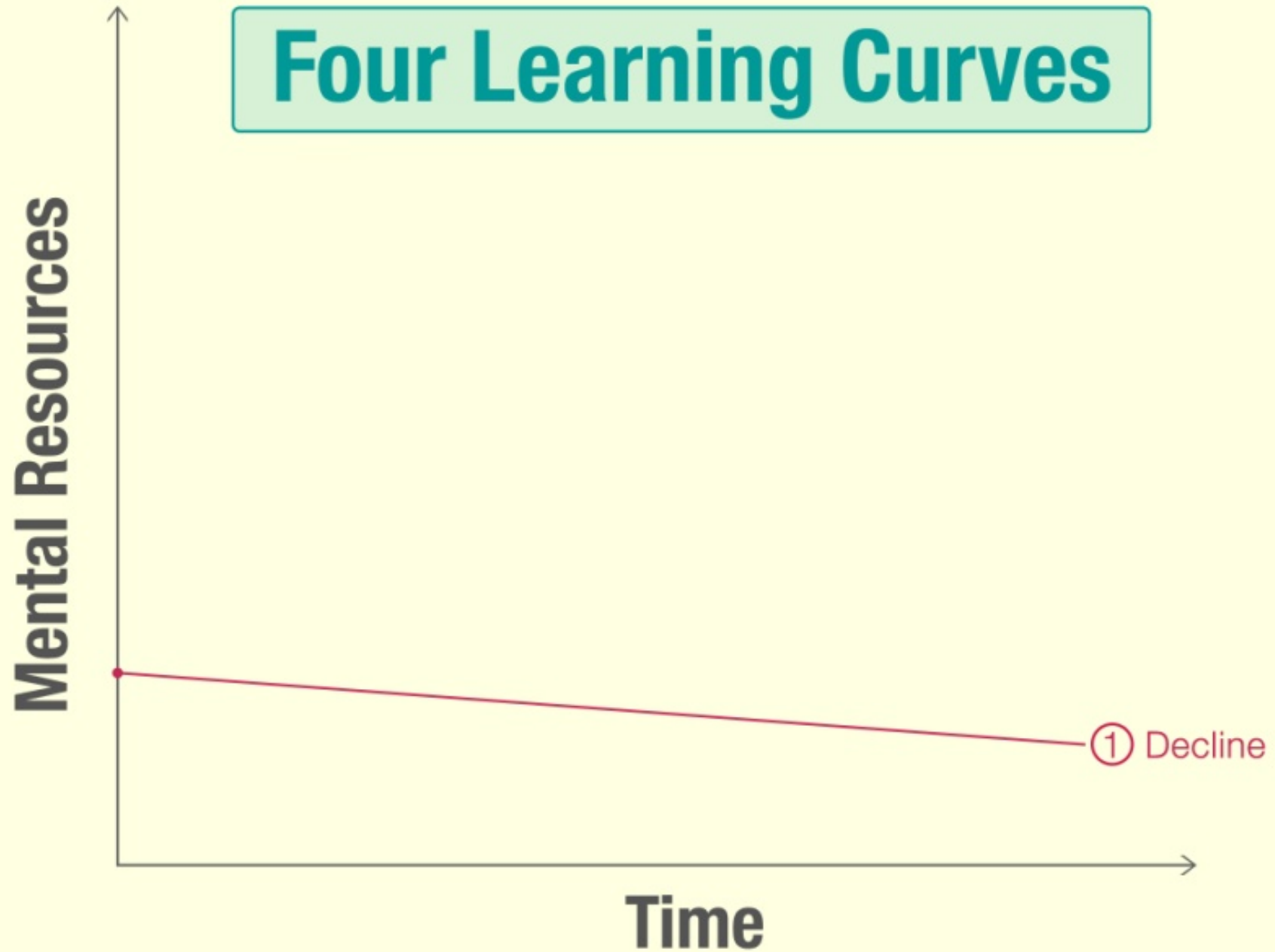


Acquiring Mental Resources

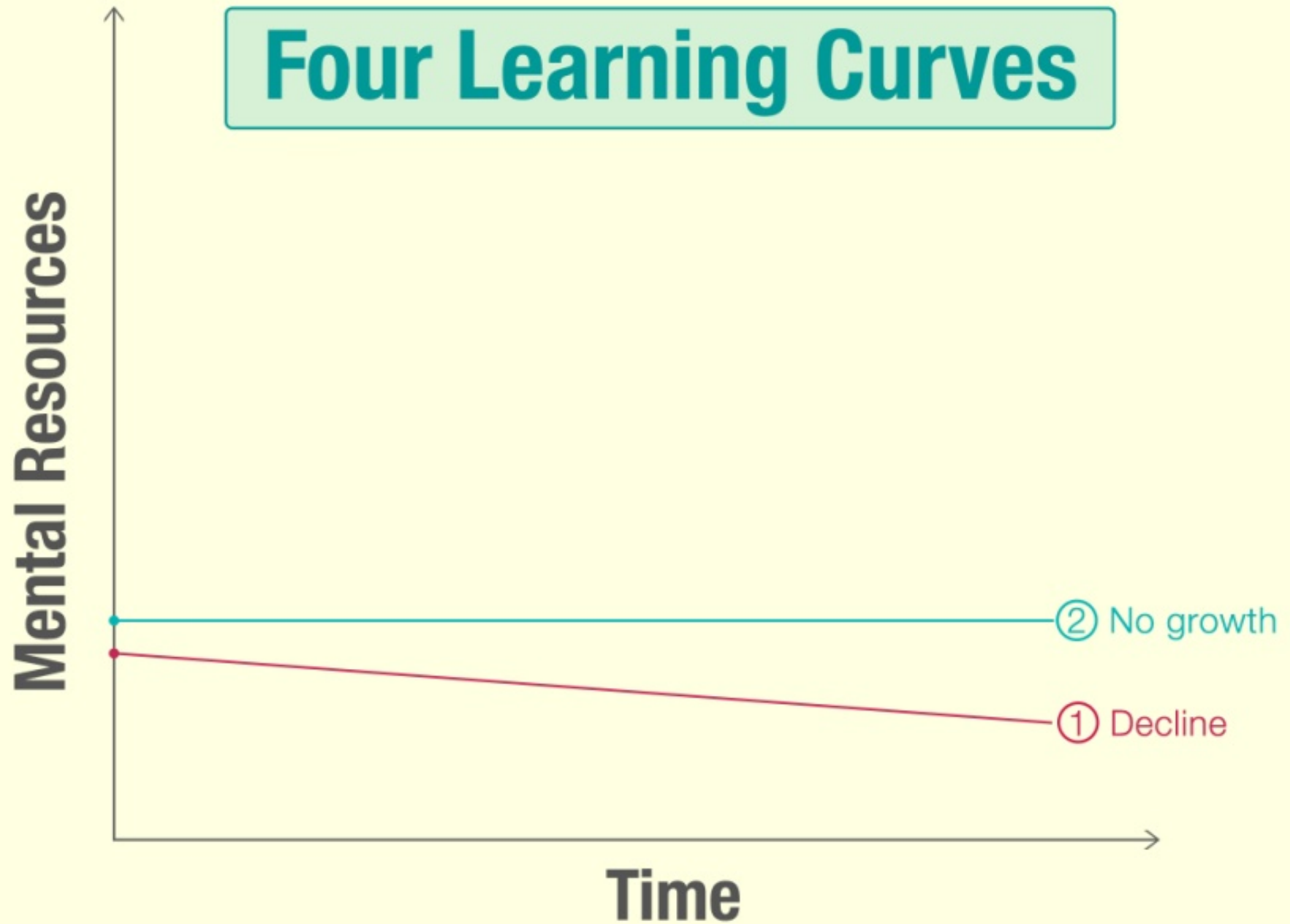
Half or more of the variation in psychological attributes, including mental resources, is due to non-heritable factors.

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

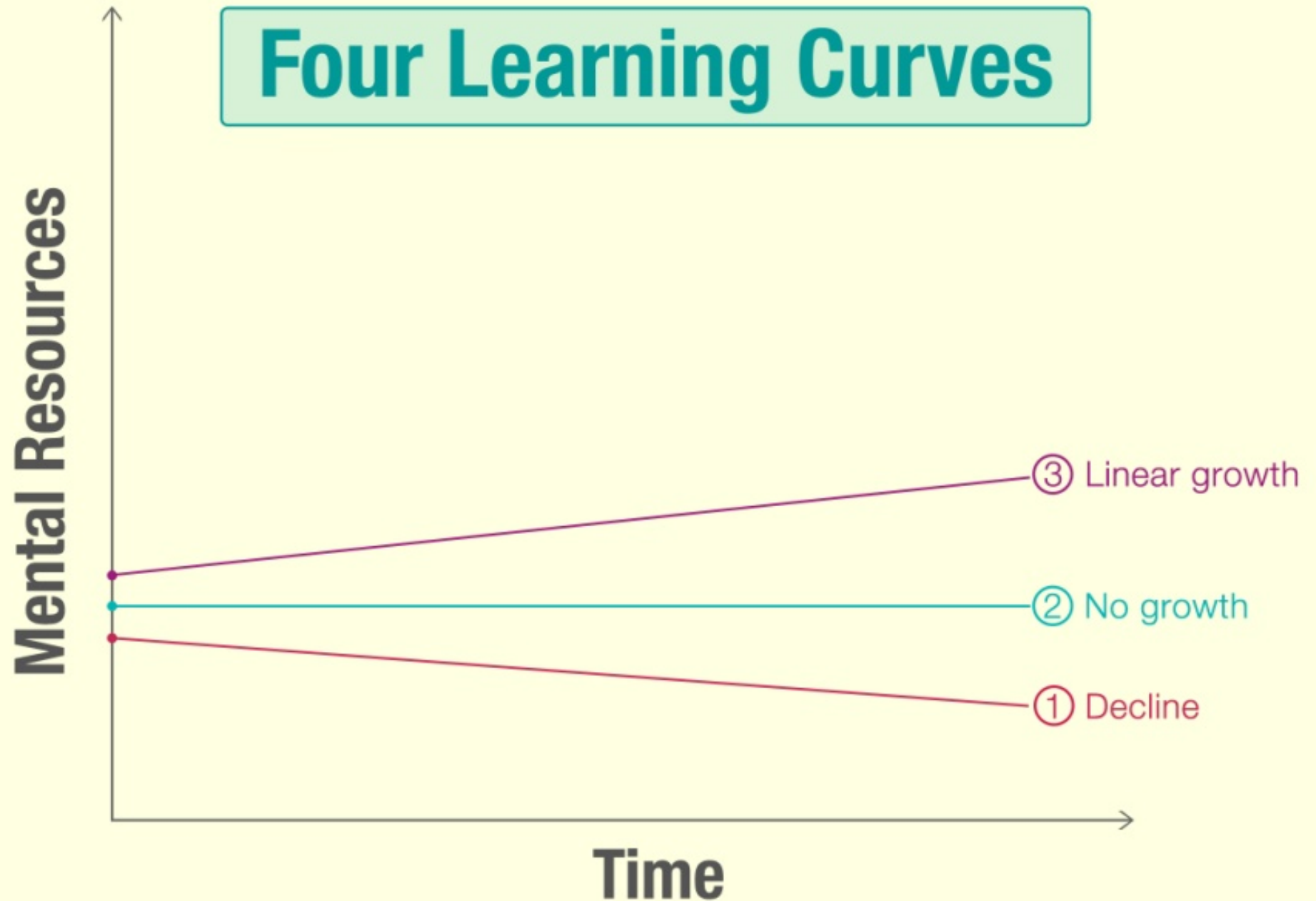
Four Learning Curves



Four Learning Curves

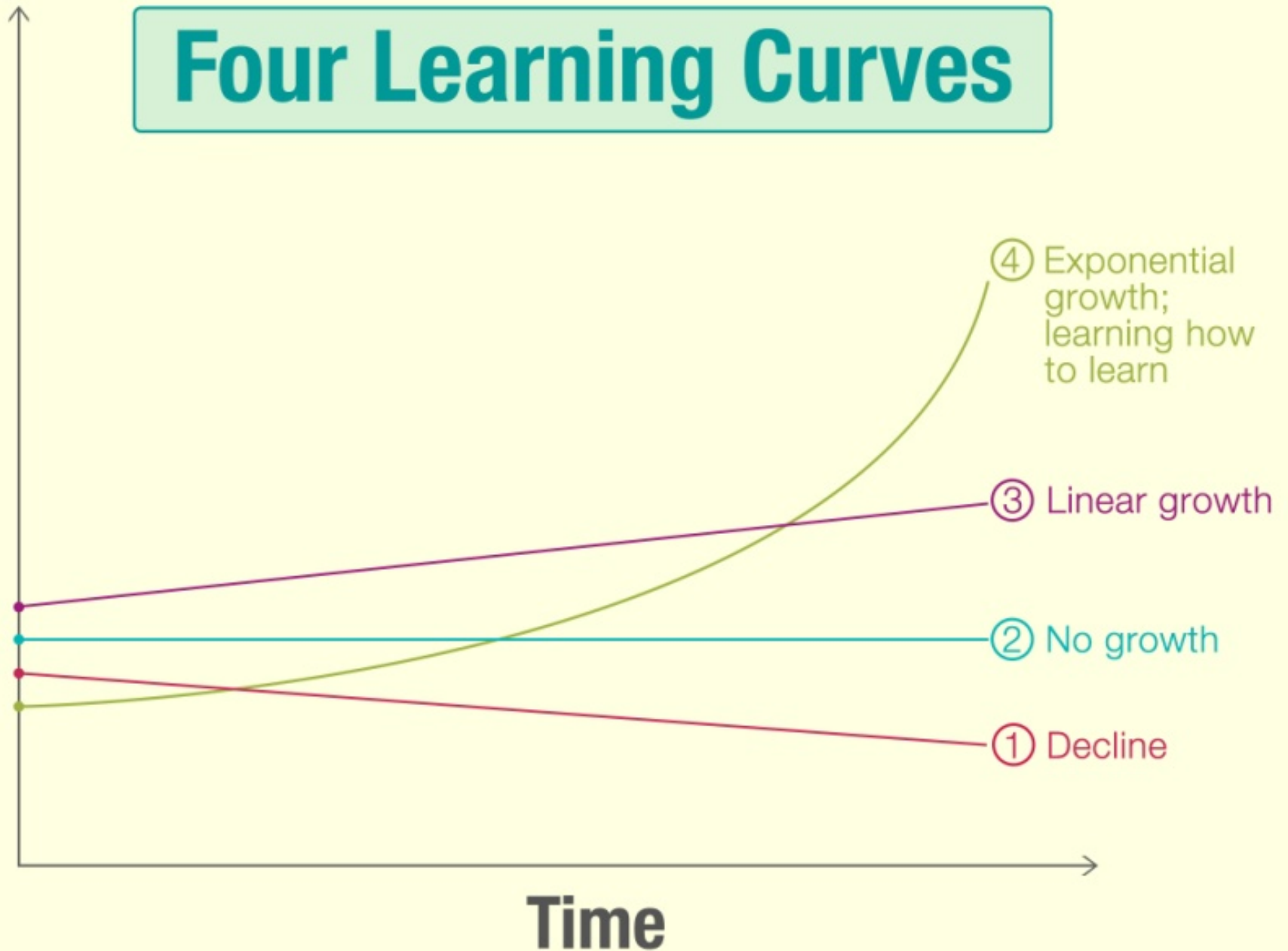


Four Learning Curves



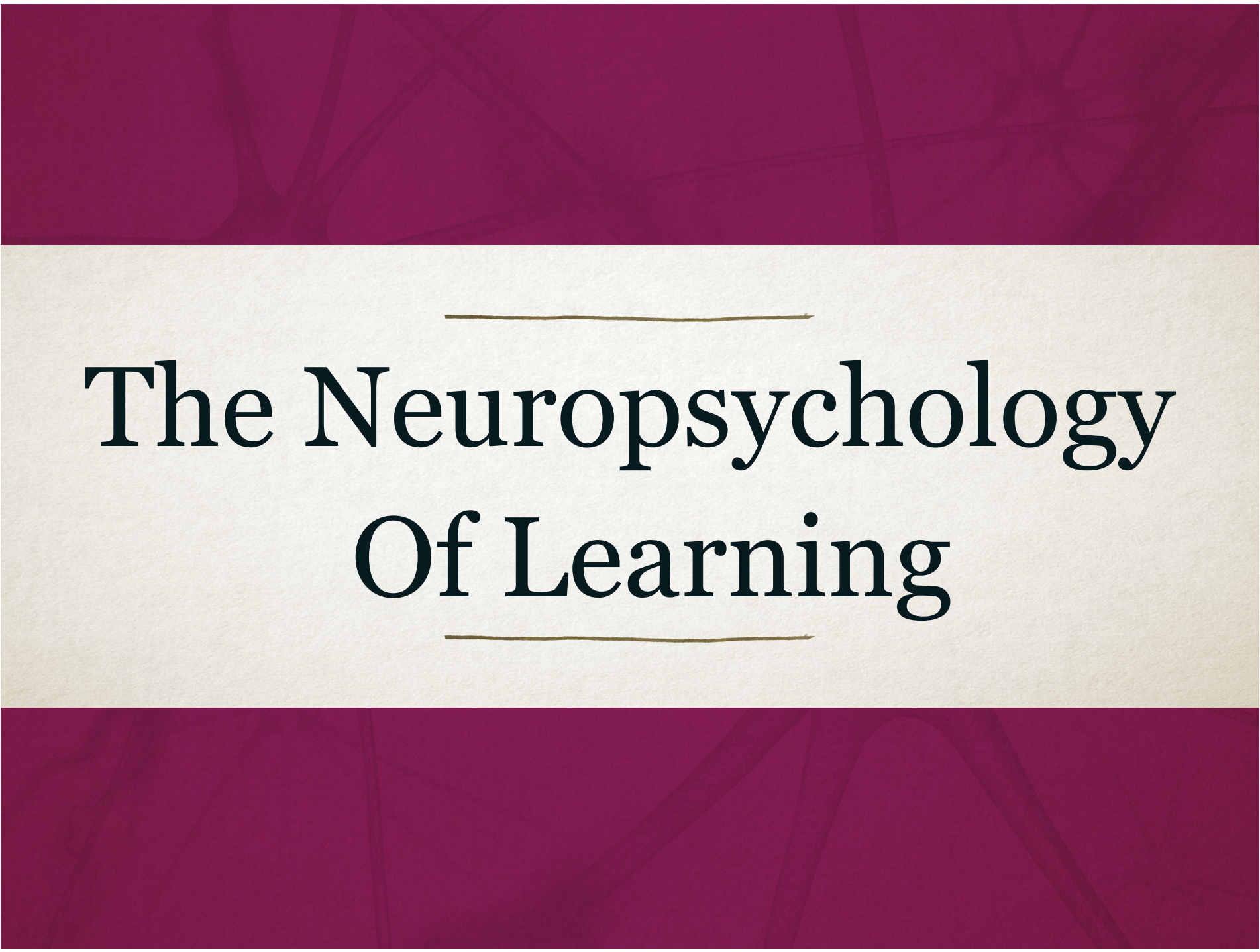
Four Learning Curves

Mental Resources





What can people do
to steepen
their growth curves?



The Neuropsychology Of Learning

Mental resources are acquired in two stages:





Neurons that fire together,

wire together.

Mechanisms of Neuroplasticity

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

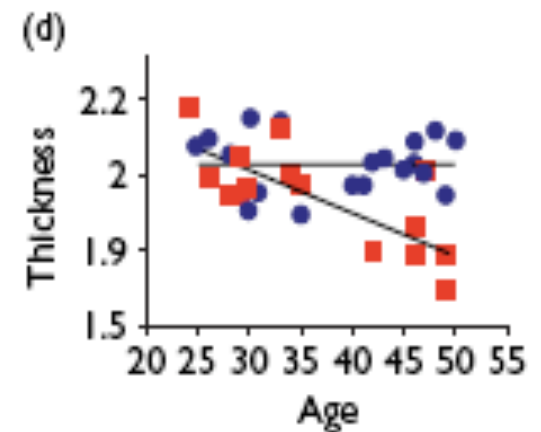
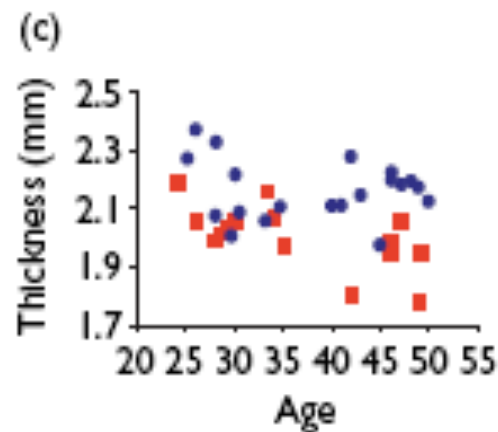
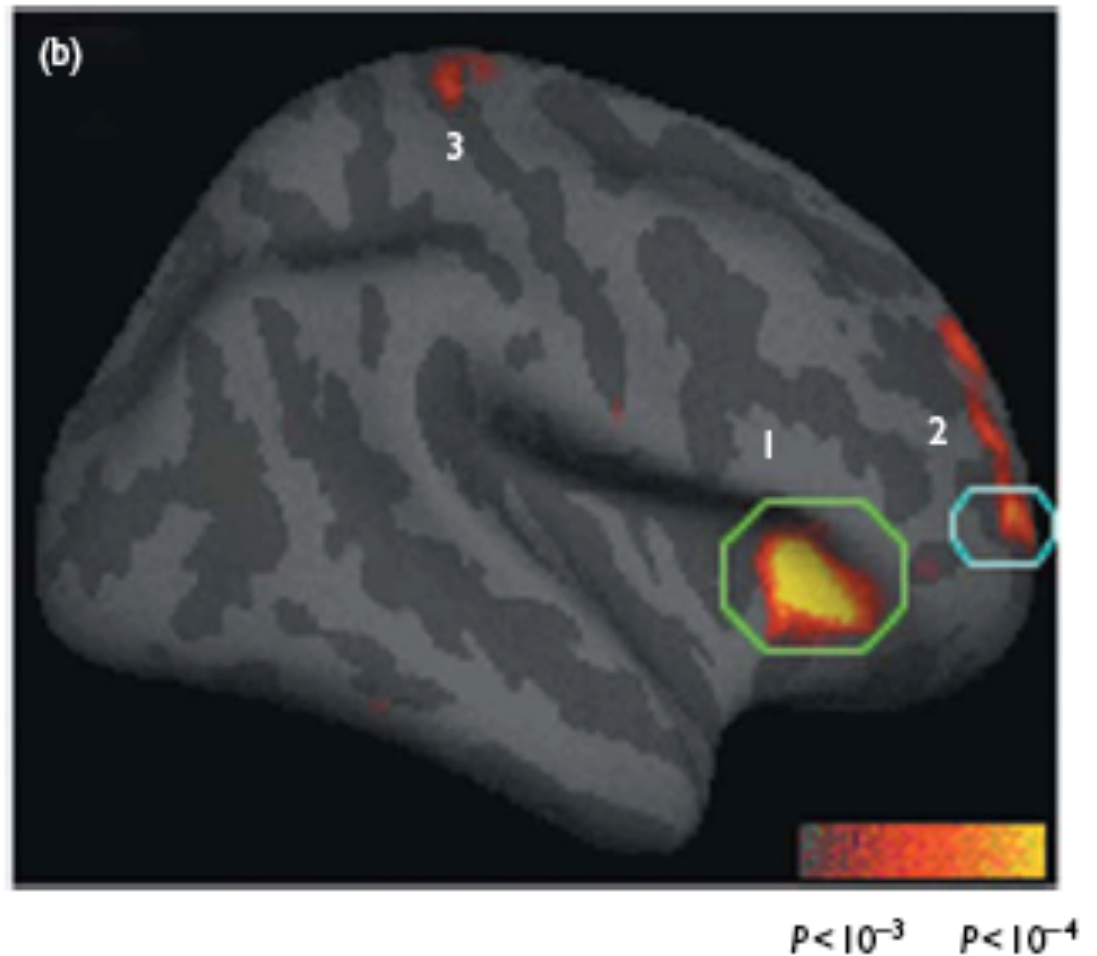
We become more **compassionate** by repeatedly installing experiences of compassion.

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

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

Meditation
experience is
associated
with increased
cortical thickness.

Lazar, et al. 2005.
Neuroreport, 16,
1893-1897.



But – experiencing doesn't equal learning.

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

What fraction of our
beneficial mental states lead to
lasting changes
in neural structure or function?

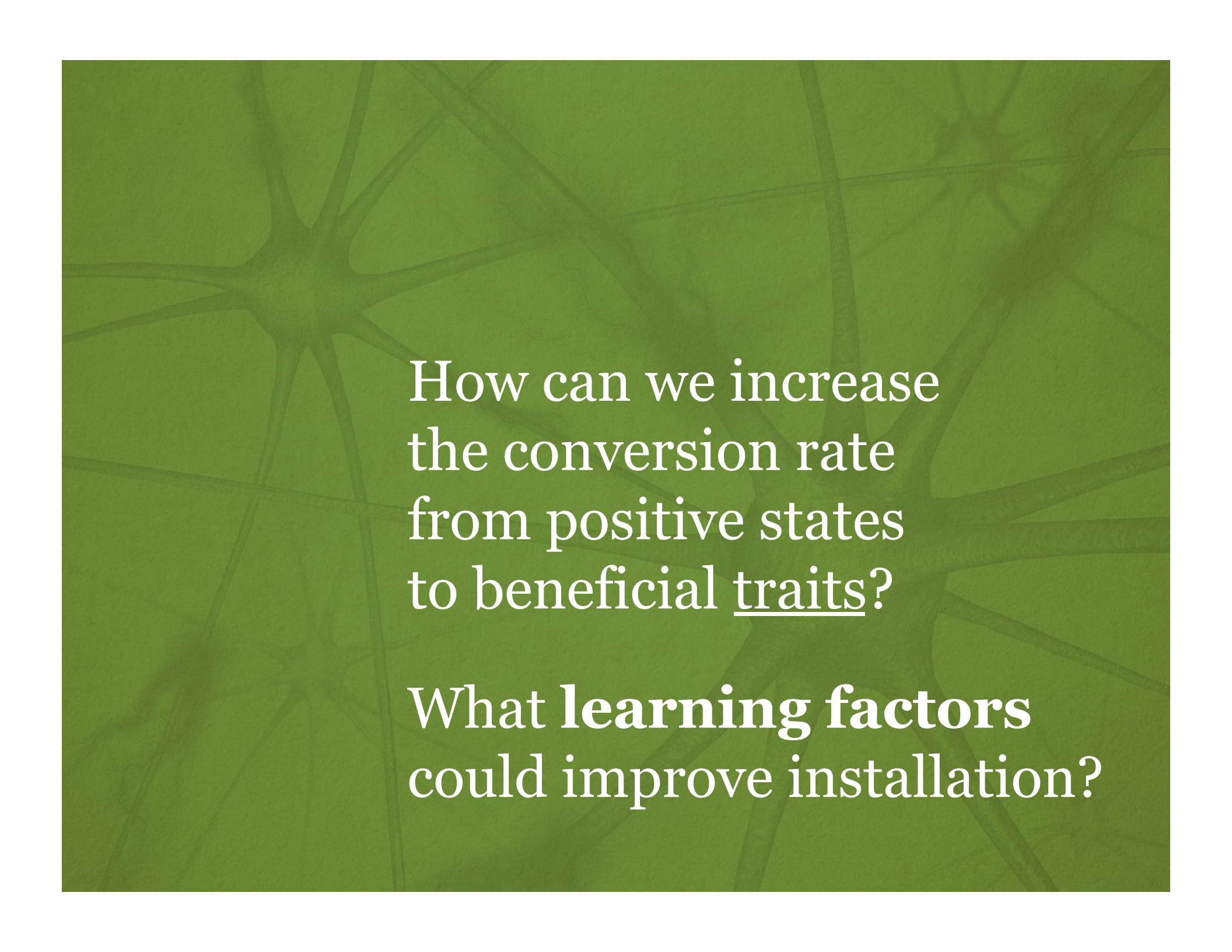


We tend to focus on activation
more than installation.

This reduces the gains from
psychotherapy, coaching,
human resources training,
mindfulness programs,
and self-help activities.

Educators
have systematically focused on
mental factors of academic learning,
including teaching them explicitly.

Therapists, coaches, trainers, etc.
have generally **not** systematically
focused on mental factors of social,
emotional, and somatic learning –
and rarely teach these explicitly.



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

What **learning factors**
could improve installation?



Changing Your Brain For the Better

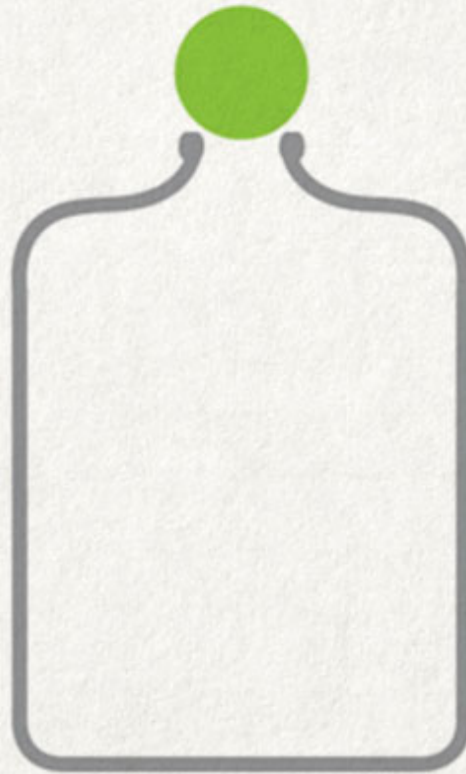
HEAL: Turning States into Traits

Activation

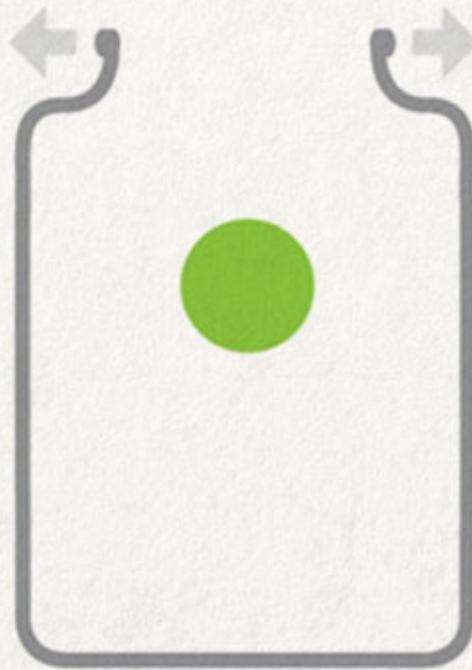
1. Have a beneficial experience

Installation

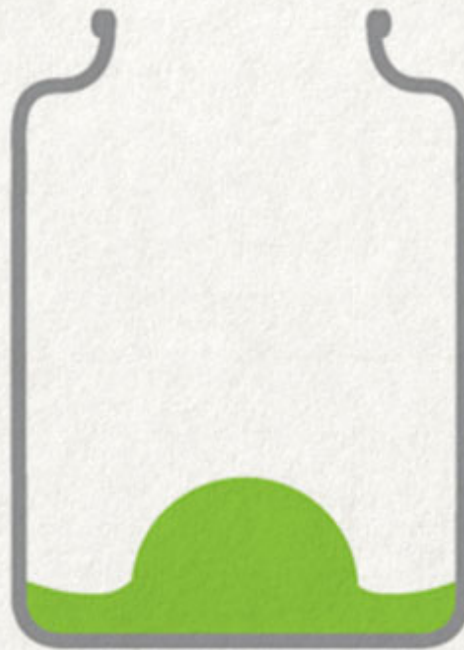
2. Enrich the experience
3. Absorb the experience
4. Link positive and negative material
(Optional)



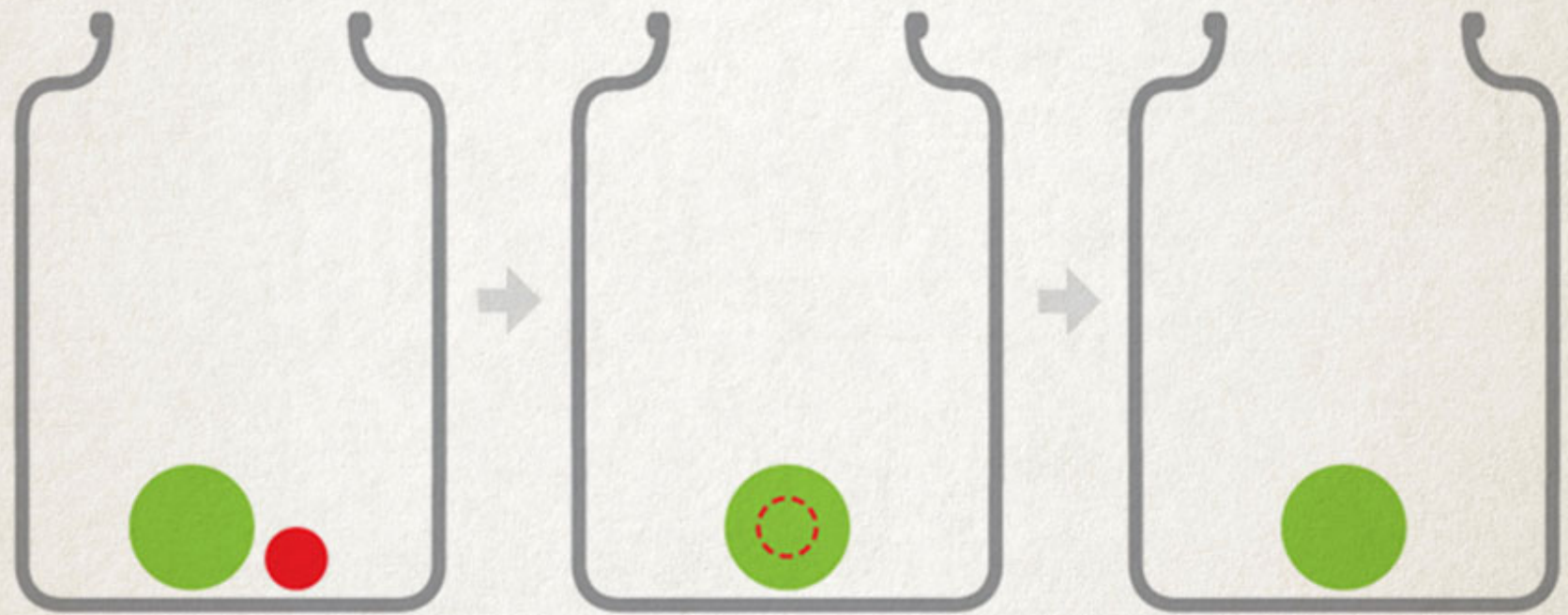
Have a Beneficial Experience



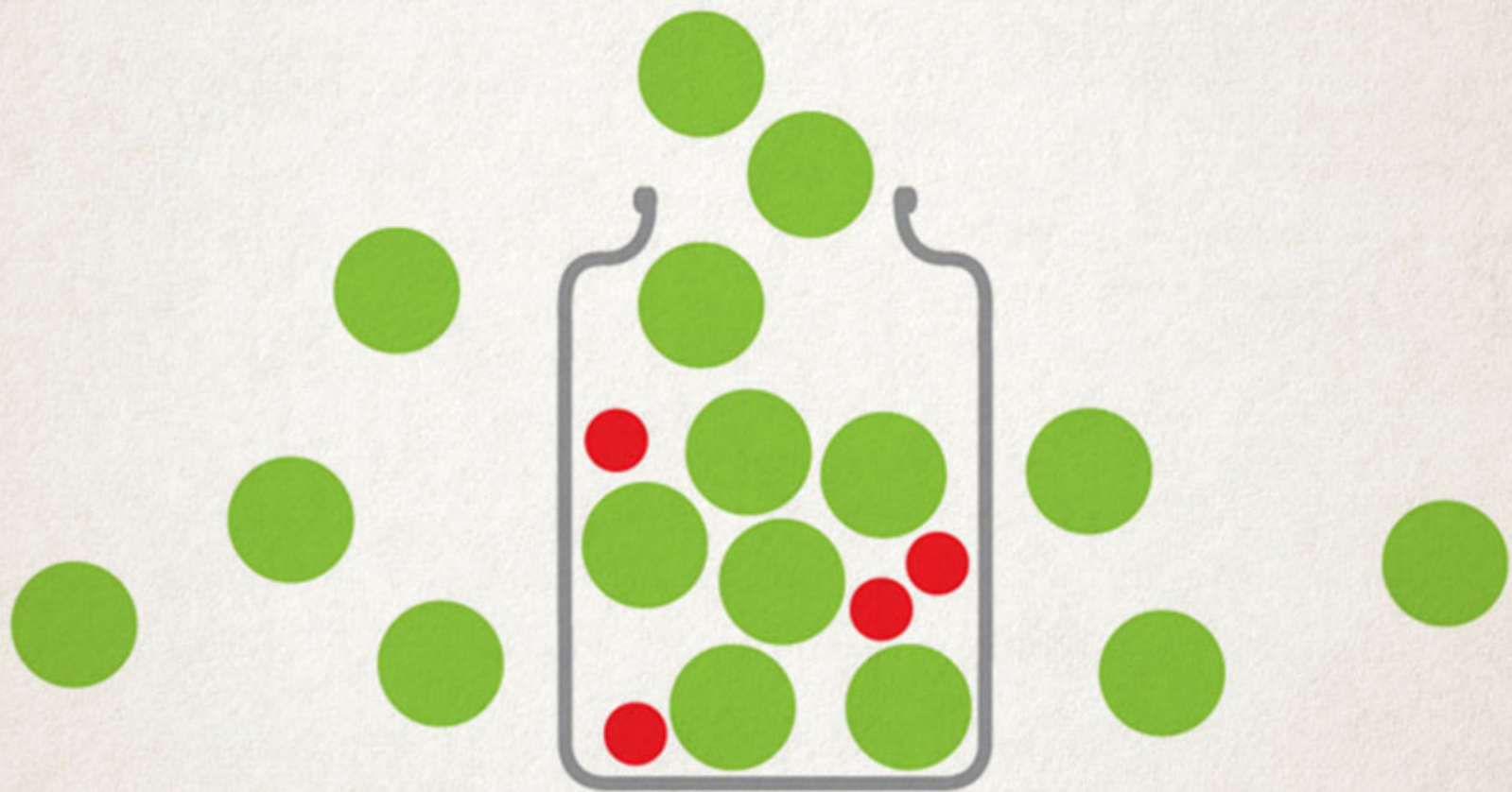
Enrich It



Absorb It



Link Positive & Negative Material



Have It, Enjoy It

Let's Try It

Notice

Being all right
right now

Create

Gratitude,
gladness

Create

Compassion,
kindness

For each of the above:

Have the experience. Enrich it. Absorb it.

It's Good to Take in the Good

Develops psychological resources:

- General – resilience, positive mood, feeling loved
- Specific – matched to challenges, wounds, deficits

Has built-in, implicit benefits:

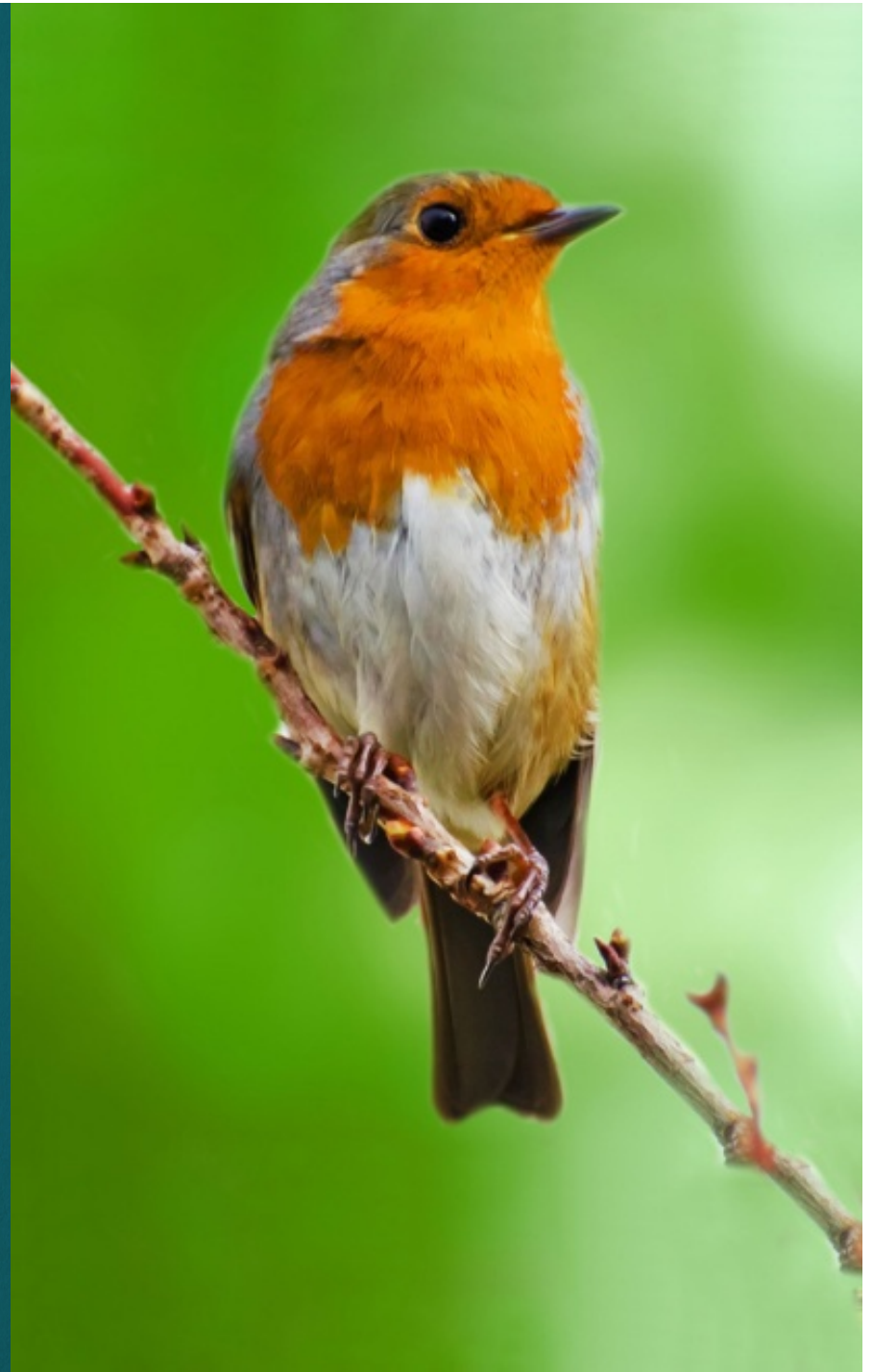
- Training attention and executive functions
- Being active rather than passive
- Treating oneself kindly, that one matters

May sensitize brain to the positive

Fuels positive cycles with others

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

Lao Tzu



Learning

is the strength of strengths,
since it's the one we use
to grow the rest of them.

Knowing how to learn
the things that are important to you
could be the greatest strength of all.



Growing Key Resources



Resilience is required
for challenges to our needs.

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

Our Three Fundamental Needs



Safety



Satisfaction



Connection

Meeting Our Three Fundamental Needs



Safety

Avoiding
harms

(threat response)



Satisfaction

Approaching
rewards

(goal pursuit)

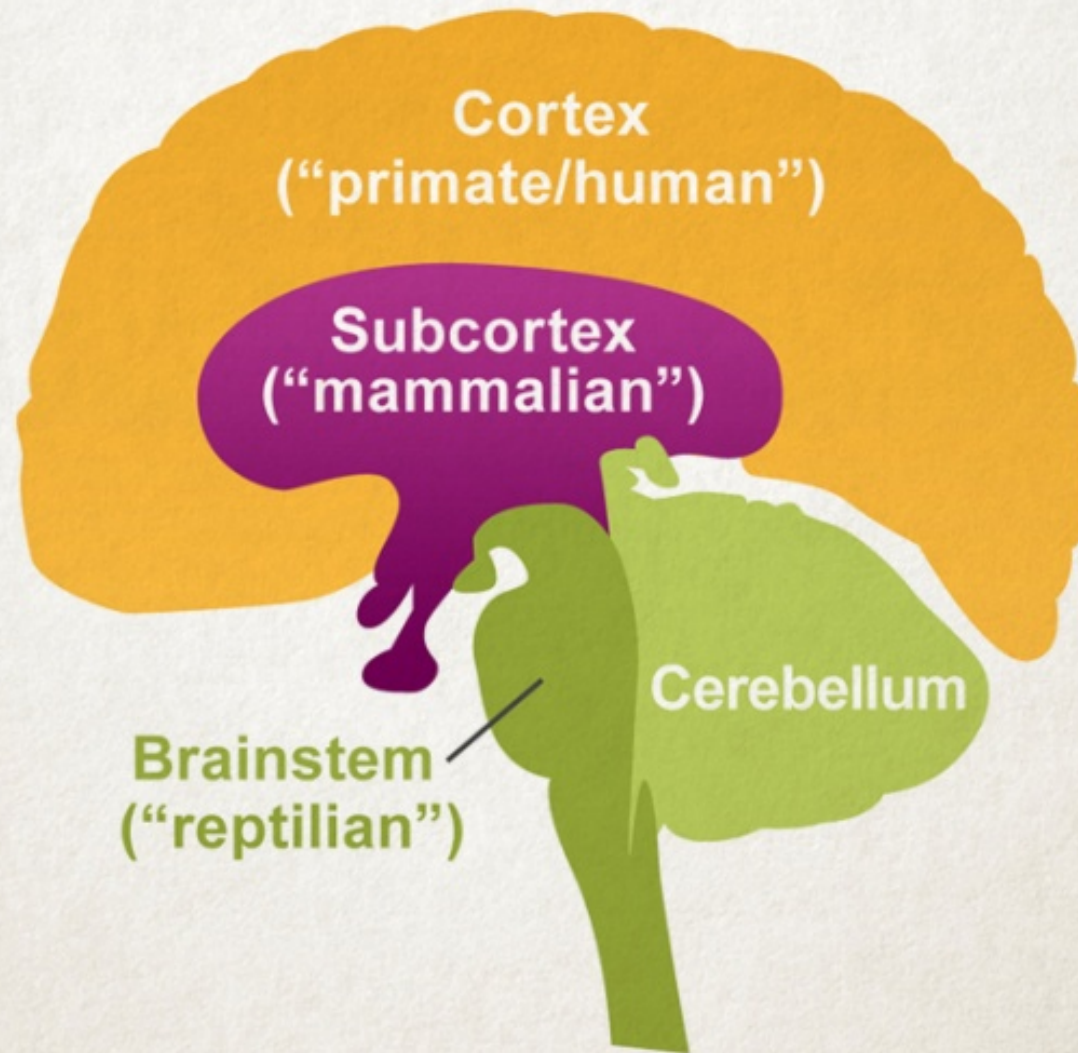


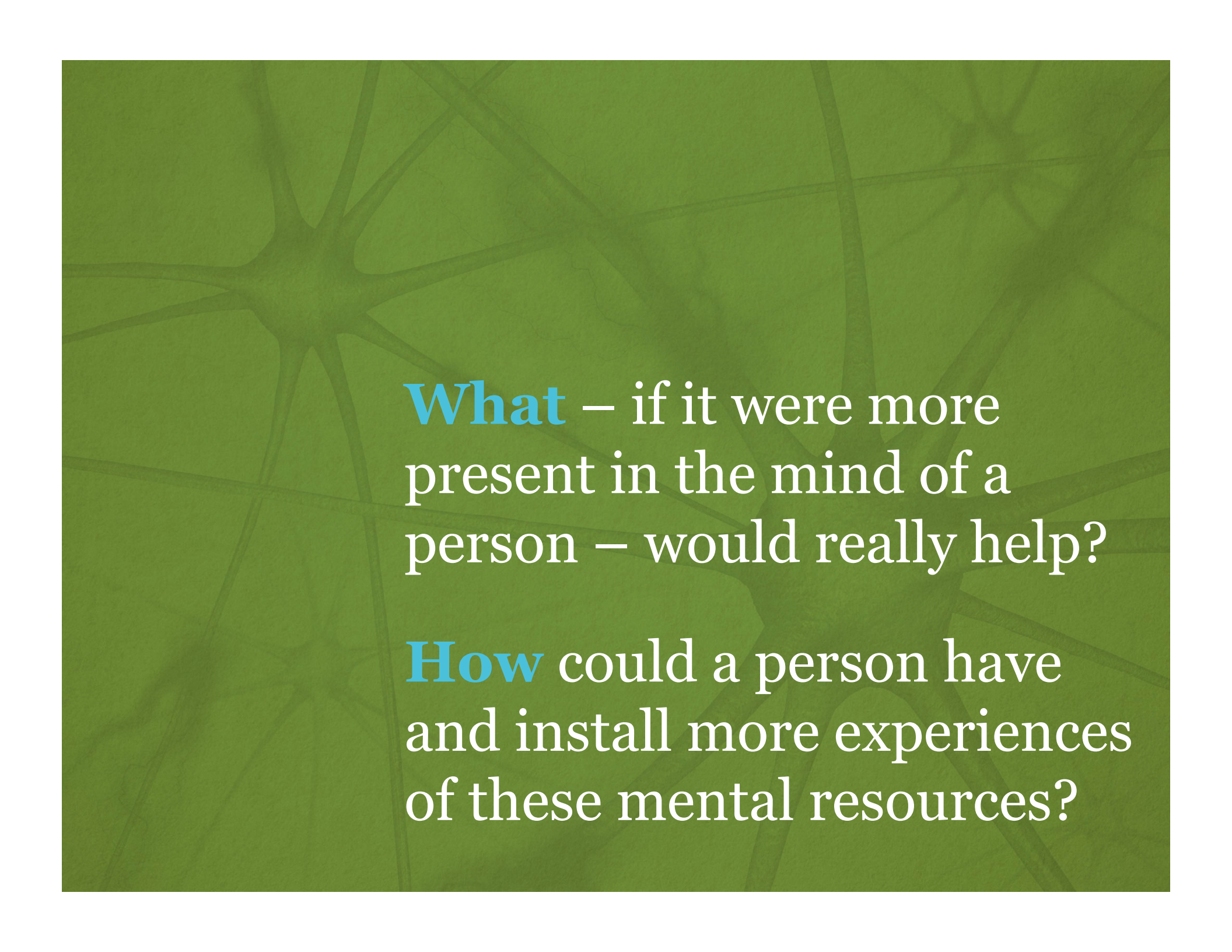
Connection

Attaching
to others

(social
engagement)

The Evolving Brain





What – if it were more present in the mind of a person – would really help?

How could a person have and install more experiences of these mental resources?

Matching Resources to Needs

Safety

See actual threats
See resources
Grit, fortitude
Feel protected
Alright right now
Relaxation
Calm

Peace

Satisfaction

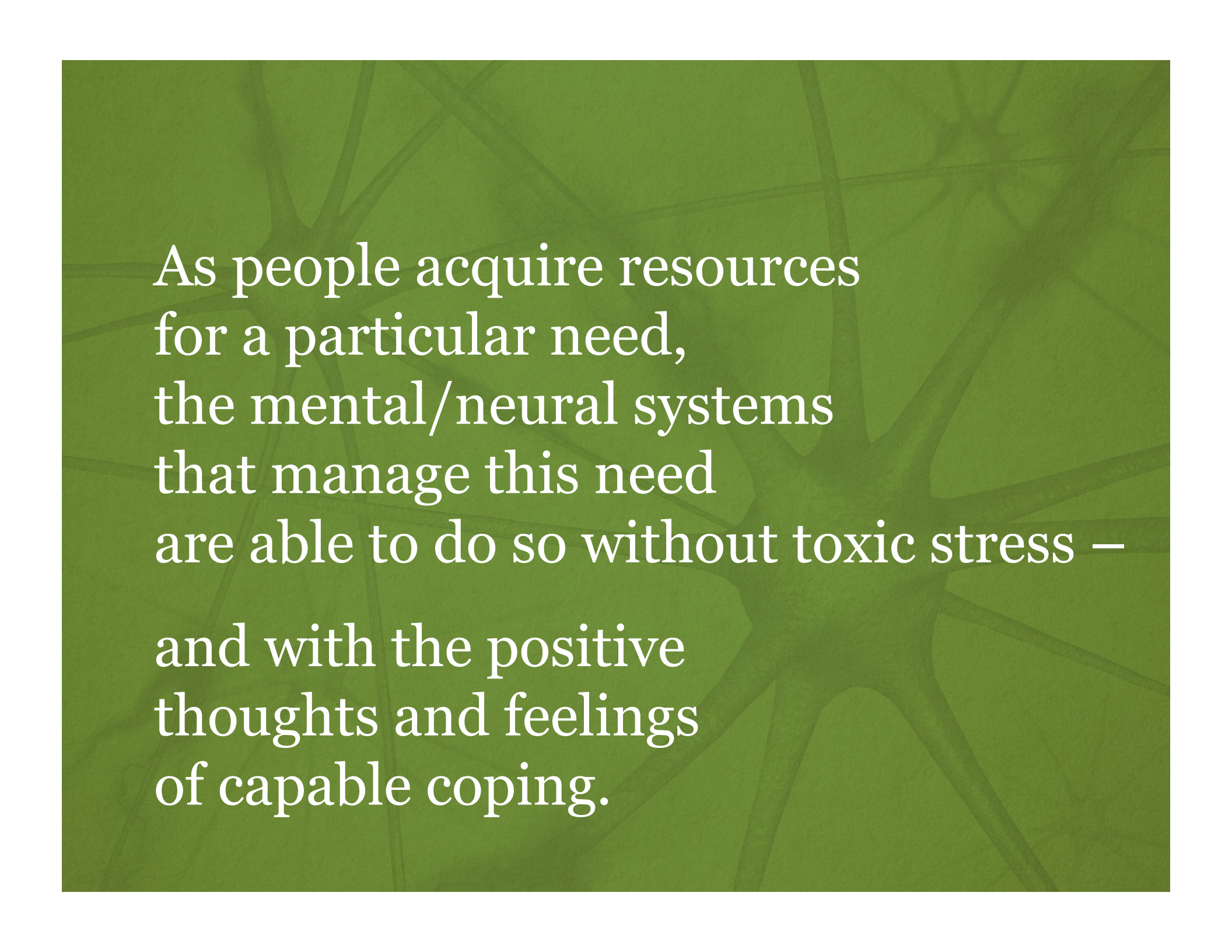
Gratitude
Gladness
Feel successful
Healthy pleasures
Impulse control
Aspiration
Enthusiasm

Contentment

Connection

Empathy
Compassion
Kindness
Wide circle of “us”
Assertiveness
Self-worth
Confidence

Love



As people acquire resources
for a particular need,
the mental/neural systems
that manage this need
are able to do so without toxic stress –

and with the positive
thoughts and feelings
of capable coping.

People experience an underlying sense of deficit and disturbance that produces the “craving” which causes suffering and harm.

Internalizing experiences of needs met builds up a sense of fullness and balance – so we can meet the next moment and its challenges feeling already strong, happy, compassionate, and at peace.

Pet the Lizard



Feed the Mouse



Hug the Monkey

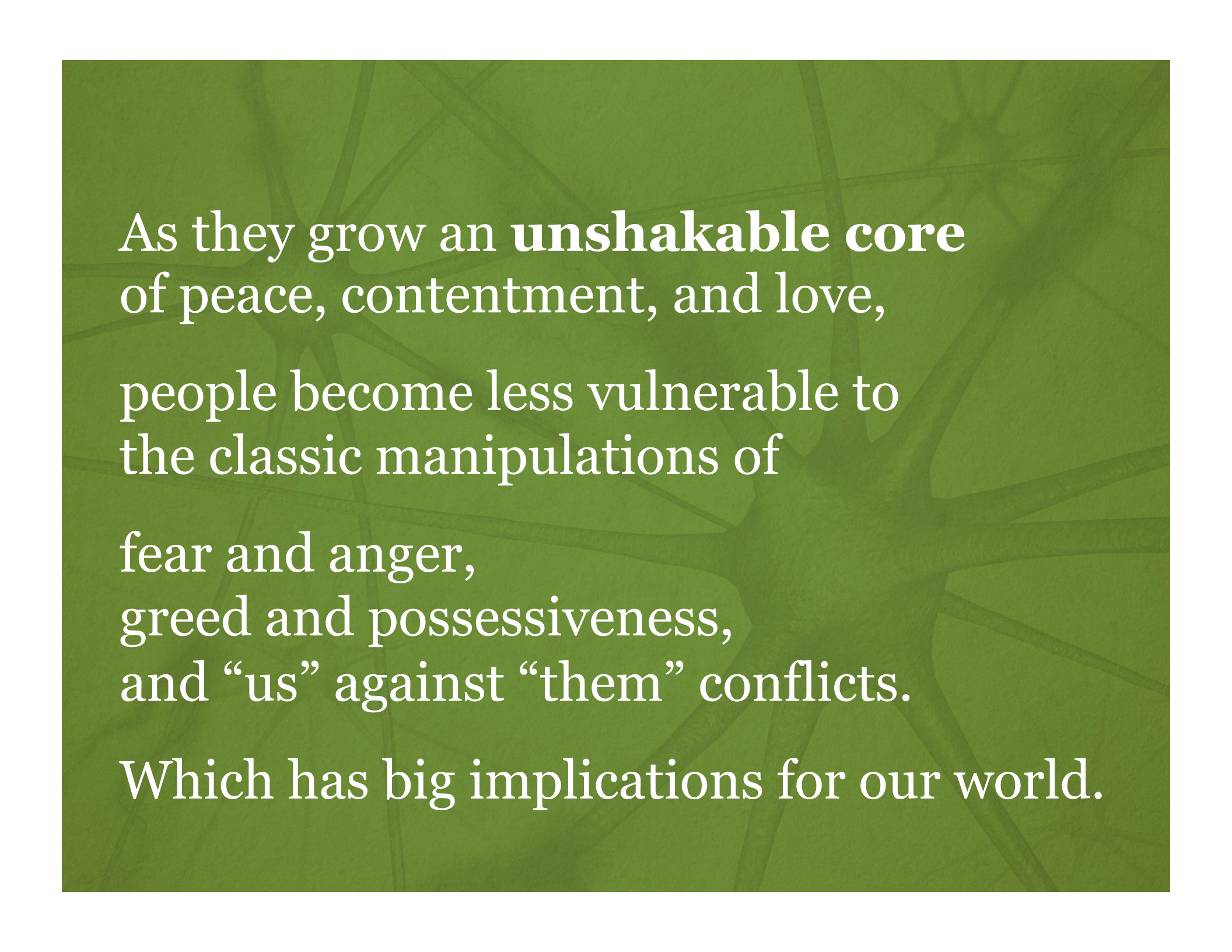


Coming Home

Peace

Contentment

Love



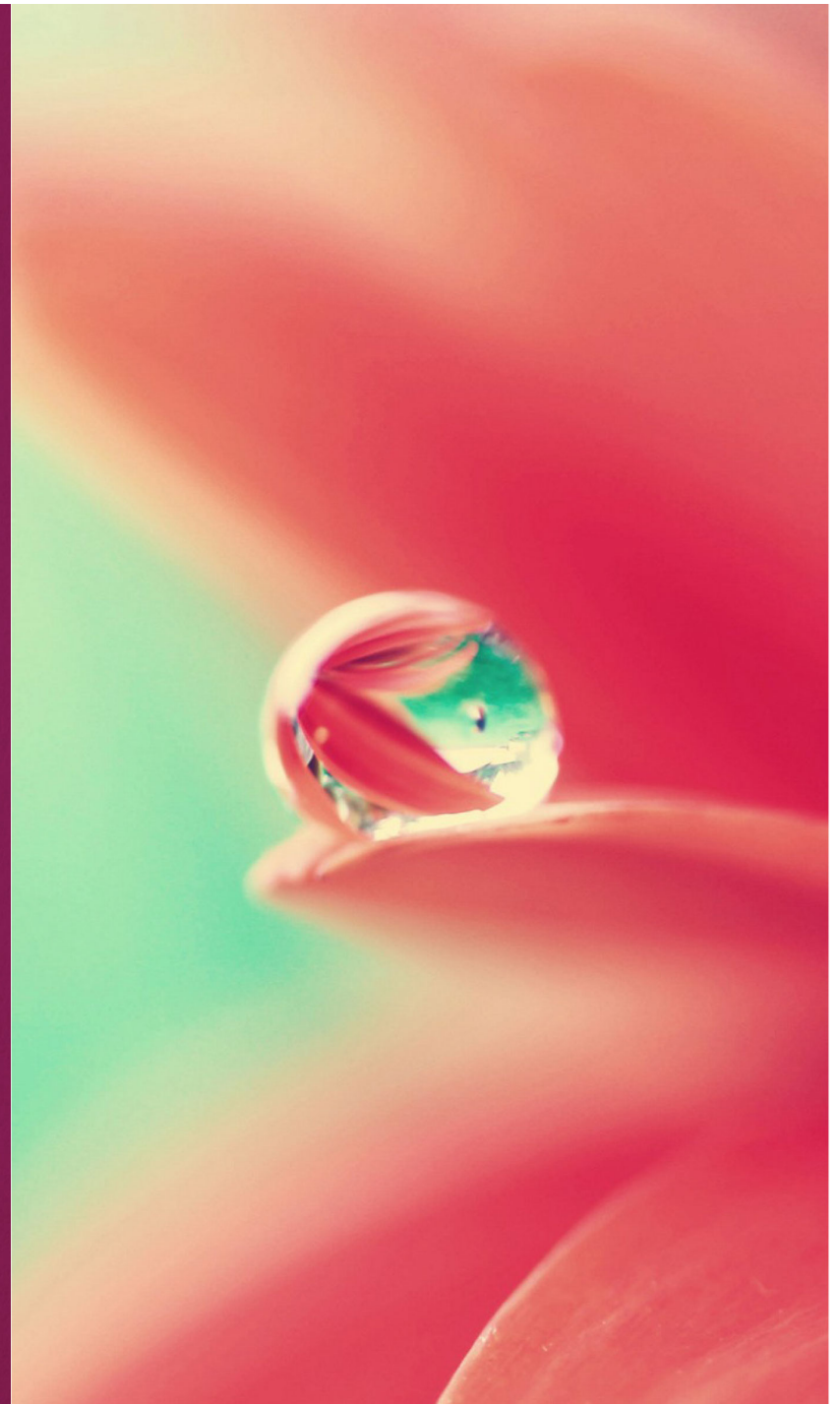
As they grow an **unshakable core**
of peace, contentment, and love,
people become less vulnerable to
the classic manipulations of
fear and anger,
greed and possessiveness,
and “us” against “them” conflicts.
Which has big implications for our world.

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

*Drop by drop
is the water pot filled.*

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

Dhammapada 9.122



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