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 Training

Turning Everyday Experiences Into Lasting Inner Strengths

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The Essence of Positive Neuroplasticity
Introduction
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
<table>
<thead>
<tr>
<th>1</th>
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</thead>
<tbody>
<tr>
<td><strong>The Essence of Positive Neuroplasticity</strong></td>
<td><strong>Having, Enriching, and Absorbing Experiences</strong></td>
<td><strong>Linking Positive And Negative Material</strong></td>
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<td><strong>Growing Strengths for Safety</strong></td>
<td><strong>Growing Strengths for Satisfaction</strong></td>
<td><strong>Growing Strengths for Connection</strong></td>
</tr>
</tbody>
</table>
What We’re Doing in PNT

1. Learning **how** to deliberately internalize beneficial experiences in implicit memory

2. Using internalization skills to cultivate **what** would be beneficial in your mind

3. Exploring different **ways** to encourage beneficial states and traits

MOST IMPORTANT
Challenges & Resources
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:

What are some of the challenges in your life these days? (in the world, body, or mind)

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

TIP: If you’re alone, reflect or journal.
A Taste of Taking in the Good
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)
Have a Beneficial Experience
Enrich It
Absorb It
Link Positive & Negative Material
Have It, Enjoy It
Let’s Try It

**Notice**
something beneficial in awareness

**Create**
the experience of gladness or gratitude

**Create**
the experience of feeling cared about

For each of the above:
Have the experience. Enrich it. Absorb it.
Growing Inner Strengths
Two Wolves in the Heart
Inner Strengths

Understandings
Capabilities
Positive Emotions
Attitudes
Motivations
Virtues
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 psychological resources – **inner strengths** – would you like to develop in yourself (perhaps through this program)?

**TIP:** If you’re alone, reflect or journal.
Inner Strengths Are Built From Brain Structure
Mental activity entails underlying neural activity.
Repeated mental activity entails repeated neural activity.

Repeated neural activity builds neural structure.
Neurons that fire together, wire together.
Learning – changing neural structure and function, proceeds in two stages:

<table>
<thead>
<tr>
<th>Encoding</th>
<th>Consolidation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activation State</td>
<td>Installation Trait</td>
</tr>
</tbody>
</table>
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, insight, mindfulness, self-worth, love, etc. – are enjoyable.
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?
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:

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

**TIP:** If you’re alone, reflect or journal.
The Three Ways to Engage the Mind
In the Garden of the Mind

1. Be with what is there
2. Decrease the negative
3. Increase the positive

Let be. Let go. Let in.
Mindfulness is present in all three.

“Being with” is primary – but not enough.
We also need “wise effort.”
Velcro for Bad, Teflon for Good

The negativity bias
The Negativity Bias
In the Garden of the Mind

1. Be with what is there
2. Decrease the negative
3. Increase the positive

Let be. Let go. Let in.
Mindfulness is present in all three.

“Being with” is primary – but not enough.
We also need “wise effort.”
That concludes Part 1: The Essence of Positive Neuroplasticity

COMING NEXT:

2

Having, Enriching, and Absorbing Experiences
2

Having, Enriching, and Absorbing Experiences
Elements of Experience
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
Having Beneficial 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)
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.
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
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.
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)
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
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
Absorbing Beneficial Experiences
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
• 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.
That concludes Part 2: Having, Enriching, and Absorbing Experiences

COMING NEXT:

3

Linking Positive and Negative Material
3

Linking Positive and Negative Material
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
Centering Practices
Centering Practices

Feel already safe
Feel already satisfied
Feel already connected
Key Resource Experiences
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
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:

<table>
<thead>
<tr>
<th>Avoiding</th>
<th>Approaching</th>
<th>Attaching</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Peace</strong></td>
<td><strong>Contentment</strong></td>
<td><strong>Love</strong></td>
</tr>
</tbody>
</table>

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**.
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.
Can You Stay in the Green Zone When:

- Things are unpleasant?
- Things are pleasant?
- Things are heartfelt?
### Some Types of Resource Experiences

<table>
<thead>
<tr>
<th><strong>Avoiding Harms</strong></th>
<th><strong>Approaching Rewards</strong></th>
<th><strong>Attaching to Others</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling basically alright right now</td>
<td>Feeling basically full, the enoughness in this moment as it is</td>
<td>Feeling basically connected</td>
</tr>
<tr>
<td>Feeling protected, strong, safe, at peace</td>
<td>Feeling pleasured, glad, grateful, satisfied</td>
<td>Feeling included, seen, liked, appreciated, loving</td>
</tr>
<tr>
<td>The sense that awareness itself is untroubled</td>
<td>Therapeutic, spiritual, or existential realizations</td>
<td>Feeling compassionate, kind, generous, loving</td>
</tr>
</tbody>
</table>
The Evolving Brain

- Cortex ("primate/human")
- Subcortex ("mammalian")
- Brainstem ("reptilian")
- Cerebellum
Pet the Lizard
Feed the Mouse
Hug the Monkey
Linking Positive and Negative Experiences
“Negative” Material

• “Negative” material includes pain, worry, discomfort, helplessness, anger, frustration, disappointment, drivenness, addiction, loneliness, insecure attachment, hurt, jealousy, resentment, inadequacy, shame

• Comes from the presence of the “bad” and the absence of the “good”

• Activated explicitly and implicitly
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
1. **Have** a beneficial experience.

2. **Enrich** it.

3. **Absorb** it.

4. **Link** it with negative material.

(Optional)
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\textsuperscript{th} 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.
That concludes Part 3: Linking Positive and Negative Material

COMING NEXT:

4

Growing Strengths For Safety
4

Growing Strengths For Safety
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 do you want to take home from this program so far?
(key ideas and experiences; what’s been useful)

TIP: If you’re alone, reflect or journal.
Multi-Purpose Inner Strengths

Being on your own side

Centering

Calming

Love

Feeling cared about | Feeling caring | Self-compassion
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
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.
Class 4: Strengths for Safety

- Feeling protected
- Feeling alright right now
- Handling threats in a Responsive way
- Centering in peace, contentment, and love
Feeling Protected

- Protections in your setting
- Resources inside you and in your life
- Other beings who could help protect you
- Imagining a shield, a force field protecting you
- Feeling as safe as you reasonably can
- Needless anxiety falling away . . . No need to struggle with anything unpleasant inside you or out in the world . . .
Feeling Basically Alright Right Now

- 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.
- Being alright, you can let go of any need to struggle with anything unpleasant.
- Feeling alright sinking into places inside that haven’t . . .
### Reactive Approaches to Pain or Threat

<table>
<thead>
<tr>
<th>Disturbing and depleting bodily systems</th>
<th>Overestimating threats and underestimating resources</th>
<th>Fear, anger, immobilization, helplessness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fight, Flight, Freeze</td>
<td>Strong sense of I-me-mine</td>
<td>Vicious cycles in relationships</td>
</tr>
</tbody>
</table>
### Responsive Approaches to Pain or Threat

<table>
<thead>
<tr>
<th>Sustainable outflow, intensity, pace</th>
<th>Centered, grounded, in-balance</th>
<th>Fear or anger contained in mindfulness, calm, strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perhaps positive emotions (e.g., confidence, vigor)</td>
<td>Less sense of I-me-mine</td>
<td>Assertive, firm; cautious but not cowed</td>
</tr>
</tbody>
</table>
## Strengths Supporting Responsive Approaches to Pains and Threats

<table>
<thead>
<tr>
<th>Recognizing costs of Reactive mode; knowing you can deal with challenges Responsively</th>
<th>Multi-purpose: on your own side, centered, calm, love</th>
<th>Feeling strong, agency, protected, alright, relaxed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeing threats and resources accurately</td>
<td>Finding refuges</td>
<td>Peace in your core</td>
</tr>
</tbody>
</table>
Coming Home

Peace
Contentment
Love
That concludes Part 4: Growing Strengths for Safety

COMING NEXT:

5
Growing Strengths For Satisfaction
Growing Strengths For Satisfaction
Class 5: Strengths for Satisfaction

Sense of accomplishment
Finding beauty
Imagining the rewards of something you’d like to help yourself want
Handling opportunities and losses in a Responsive way
Centering in peace, contentment, and love
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 things you have accomplished in your life?**

(*Including lots of seemingly small things*)

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

**Take in your partner’s recognition of you.**
Explore this setting for things that are beautiful (or otherwise pleasureable) to you: sounds, sights, tastes, touches, smells, and thoughts. Look for little things.

Really take in the sense of beauty (or the sense of pleasure in general).
Liking and Wanting

• **Desire** (positively or negatively valenced):
  – Liking: enjoying, preferring, valuing, “nice to have”
  – Wanting: pressure, tunnel vision, insisting, “must have,” addiction, craving; different from simple determination, passion, ambition, aspiration, commitment
  – You can like without wanting and want without liking.

• **Liking without wanting: heaven; wanting without liking: hell.**

• Dealing with the unpleasant, pleasant, heartfelt, and neutral on the basis of liking without tipping into wanting is the essence of the Responsive mode.
Encouraging Motivation

In some ways, the key to life is helping yourself learn to want things that are good for you that you don’t yet want.

It is said that wisdom is choosing a greater happiness over a lesser one.

To help your brain want and choose that greater happiness, associate anticipated rewards with whatever you want to encourage, by:

1. Before doing it, imagine the rewards.
2. While doing it, focus on the rewards.
3. After doing it, recall the rewards.
### Strengths Supporting Responsive Approaches to Opportunities and Losses

<table>
<thead>
<tr>
<th>Seeing costs of Reactive and benefits of Responsive</th>
<th>Multi-purpose: on your own side, centered, calm, love</th>
<th>Sense of accomplishment, beauty, fullness of this moment, rewards, pleasure, gratitude, gladness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding enthusiasm and passion</td>
<td>Making good plans and drawing in needed resources</td>
<td>Contentment in your core</td>
</tr>
</tbody>
</table>
Coming Home

Peace
Contentment
Love
That concludes Part 5: Growing Strengths for Satisfaction

COMING NEXT:

6

Growing Strengths For Connection
6

Growing Strengths For Connection
Class 6: Strengths for Connection

Happiness at the good fortune of others
Feeling of worth
Empathy, given and received
Engaging relationships in a Responsive way
Centering in peace, contentment, and love
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
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, chosen
- Appreciated, acknowledged, respected
- Liked, befriended, supported
- Loved, cherished, special
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:

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

**TIP:** If you’re alone, reflect or journal.
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, chosen
- Appreciated, acknowledged, respected
- Liked, befriended, supported
- Loved, cherished, special
What was that practice like for you, exploring feelings of worth?

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:

While listening, be as empathic as you can with your partner.

**TIP:** If you’re alone, reflect or journal.
Strengths Supporting Responsive Approaches to Closeness and Rejection

- Seeing costs of Reactive and benefits of Responsive
- Multi-purpose: on your own side, centered, calm, love
- Feeling of worth
- Feeling cared about
- Self-compassion
- Feeling caring; empathy
- Compassion for the other person
- Autonomy
- Clarity
- Acting with strength and with heart
- Love in your core
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:

What are the key benefits for you from this training?

What are your key intentions for the days and weeks ahead?

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

• Be mindful of the hedonic tone of experiences – unpleasant, pleasant, heartfelt, neutral – and help yourself tip toward the green zone about them
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
Coming Home

Peace

Contentment

Love
Thank You
See RickHanson.net for other good books.

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


Key Papers – 2


- 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


Where to Find Rick Hanson Online

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

www.rickhanson.net/hardwiringhappiness

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

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

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<th>Facebook</th>
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<tbody>
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<td>youtube.com/drrhanson</td>
<td>facebook.com/rickhansonphd</td>
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