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*

Rick Hanson, Ph.D.
The Wellspring Institute For Neuroscience and Contemplative Wisdom
Class 1:
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
Classes of PNT

1. The Essence of Positive Neuroplasticity
2. Having, Enriching, and Absorbing Experiences
3. Linking Positive and Negative Material
4. Growing Strengths for Safety
5. Growing Strengths for Satisfaction
6. Growing Strengths for Connection
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

→ #1 is the most important here.
Challenges and Resources
Pick a partner and choose an A and a B (A’s go first). Then you’ll take turns, with one partner mainly speaking while the other person 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?
A Taste of Taking in the Good
Positive Neuroplasticity – 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 and Negative Material
Have It, Enjoy It
Let’s Try It

- **Notice** something beneficial in awareness.
  - Have the experience – more in the foreground.
  - Enrich it – sustain it, feel it in your body.
  - Absorb it – receive it, imagine or sense it’s sinking in.

- **Create** the experience of gladness or gratitude.
  - Have the experience.
  - Enrich it.
  - Absorb it.

- **Create** the experience of feeling cared about.
  - 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 you’ll take turns, with one partner mainly speaking while the other person listens, exploring this question:

What psychological resources – inner strengths – would you like to develop in yourself (perhaps through this program)?
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.
The Neuropsychology of Learning

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

From **state** to **trait**

From **activation** to **installation**

From **short-term** memory buffers to **long-term** storage
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?
Pick a partner and choose an A and a B (A’s go first). Then you’ll take turns, with one partner mainly speaking while the other person 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.
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

bad experiences

good experiences
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.”
Have It, Enjoy It
Class 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; value; drive; motivation; purpose; dream; passion; determination

- **Action** – behavior; posture; knowing how to
Having Beneficial Experiences
Positive Neuroplasticity – 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

Notice one you are already having.
- In the foreground of awareness
- In the background

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 yourself.

- Be a little active in your mind, recognizing aspects of the good fact that naturally elicit an experience.

- Imagine how another person might naturally feel in response to the good fact.

- Have kindness for yourself, encouraging yourself to have a beneficial experience.
Positive Neuroplasticity –
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
How to Absorb an Experience

- **Enriching** makes the experience more powerful. **Absorbing** makes memory systems more receptive by priming and sensitizing them.

- Intend and 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

- Giving over to the experience; letting it change you

- Letting go of resisting, grasping, clinging: “craving”
The good life, as I 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
Care and Concern for Yourself

- Bring to mind someone you are *for*. Find a sense of caring, seeing suffering and worth, feeling support, being an ally. Know this stance toward someone.

- Apply this stance, this feeling, toward yourself.

- Recognizing your difficulties and burdens. Seeing softness and vulnerability inside like in any other person. Recognizing your stress, worry, frustration, hurt, pain.

- Finding warmth for yourself, the wish that you not suffer and instead be truly happy, determined to have a good life as best you can.
Class 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 Tsu
Centering Practices
Pick a partner and choose an A and a B (A’s go first). Then take turns exploring each question before moving on to the next one:

What helps you feel safe?
What helps you feel satisfied?
What helps you feel connected?

→ Focus on how to authentically cultivate this experience in your mind, though you could also talk about how to resource your mind to take the actions that would give you this experience.
Centering Practices

- Feeling already safe
- Feeling already satisfied
- Feeling already connected
Key Resource Experiences
Our Three Fundamental Needs

Safety

Satisfaction

Connection
Needs Activated by . . .

Safety – Unpleasant; aversion; threat

Satisfaction – Pleasant; opportunity; loss

Connection – Heartfelt; attraction; rejection
Needs Met by Three Systems

Safety – Avoiding harms

Satisfaction – Approaching rewards

Connection – Attaching to others
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 sustainable equilibrium of:
- Peace (the Avoiding system)
- Contentment (the Approaching system)
- Love (the Attaching system)

This is the brain in its homeostatic Responsive, minimal craving 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:

- **Fear** (the Avoiding system)
- **Frustration** (the Approaching system)
- **Heartache** (the Attaching system)

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

Positive experiences of core needs met - the felt sense of safety, satisfaction, and connection - activate Responsive mode.

Activated Responsive states can become installed Responsive traits. Responsive traits foster Responsive states.

Responsive states and traits enable us to stay Responsive with challenges.
Can You Stay in the Green Zone When:

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

Avoiding Harms
- Feeling basically alright right now
- Feeling protected, strong, safe, at peace
- The sense that awareness itself is untroubled

Approaching Rewards
- Feeling basically full, the enoughness in this moment as it is
- Feeling pleasured, glad, grateful, satisfied
- Therapeutic, spiritual, or existential realizations

Attaching to Others
- Feeling basically connected
- Feeling included, seen, liked, appreciated, loved
- Feeling compassionate, kind, generous, loving
The Evolving Brain

The Triune Brain - (P. MacLean 1990)
Pet the Lizard
Feed the Mouse
Hug the Monkey
Linking Positive and Negative Material
“Negative” Material

“Negative” material includes pain, discomfort, worry, 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
HEAL by Taking in the Good

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 (e.g., soothing balm, filling up hollow places, connecting with younger layers of the psyche).

→ Throughout, the positive material remains more prominent in awareness.
Skills with the 4th 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.
Class 4:

Growing Strengths for Safety
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 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:
  - Get the sense of being cared about.
  - Bring to mind beings you care about. Find compassion for them.
  - Shift the compassion to yourself.
“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
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
Extra Strengths for Safety

- Feeling strong
- Sense of agency, efficacy
- Relaxation
- Seeing threats and resources accurately
- Finding refuges
- Dropping directly into peace
Feeling Protected

- Protections in your setting
- Resources inside you and in your life
- Other beings who could help protect you
- Imagining a wall, 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

- Disturbing and depleting bodily systems
- Overestimating threats and underestimating resources
- Fear, anger, immobilization, helplessness
- Fight, flight, freeze
- Strong sense of I-me-mine
- Vicious cycles in relationships
Responsive Approaches to Pain, Threat

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

- Recognizing costs of Reactive mode; knowing you can deal with challenges Responsively
- Multi-purpose: on your own side, centered, calm, love
- Feeling strong, agency, protected, alright, relaxed
- Seeing threats and resources accurately
- Finding refuges
- Peace in your core
Pick a partner and choose an A and a B (A’s go first). Then take turns exploring this question:

What **inner strengths** do – or could – help you deal with challenges to **safety** (things that make you feel anxious, angry, or helpless) in **Responsive** ways?
Coming Home

Peace

Contentment

Love
Class 5: Growing Strengths for Satisfaction
Multi-Purpose Inner Strengths

- Being on your own side
- Centering
- Calming
- Love
  - Feeling cared about
  - Feeling caring
  - Self-compassion
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
Extra Strengths for Satisfaction

- Noticing something already pleasant
- Gratitude
- Gladness
- The fullness of this moment
- Taking pleasure
- Finding enthusiasm and passion
- Making good plans
Class 5: Strengths for Satisfaction

- Sense of accomplishment
- Finding beauty
- The fullness of this moment
- 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 you’ll take turns, with one partner mainly speaking while the other person listens, exploring these questions:

What are some of the things you have accomplished in your life? Including lots of seemingly small things.
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.
Pick a partner and choose an A and a B (A’s go first). Then you’ll take turns, with one partner mainly speaking while the other person listens, exploring these questions:

What do “liking” and “wanting” feel like for you, and the differences between them?

What helps you pursue what you like without tipping into pressure, drivenness, and other aspects of wanting it?
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:
  - Before doing it, imagine the rewards of it.
  - While doing it, focus on the rewards of it.
  - After doing it, recall the rewards of it.
Strengths Supporting Responsive Approaches to Opportunities and Losses

- Seeing costs of Reactive and possibility of Responsive
- Multi-purpose: on your own side, centered, calm, love
- Sense of accomplishment, beauty, fullness of this moment, rewards of what you’d like to encourage, pleasure along the way, gratitude, gladness
- Finding enthusiasm and passion
- Making good plans and drawing in needed resources
- Contentment in your core
Pick a partner and choose an A and a B (A’s go first). Then take turns exploring this question:

What *inner strengths* do – or could – help you deal with challenges to *satisfaction* (things that make you feel frustrated, disappointed, or grieving) in *Responsive* ways?
Coming Home

Peace

Contentment

Love
Class 6:
Growing Strengths for Connection
Multi-Purpose Inner Strengths

- Being on your own side
- Centering
- Calming
- Love
  - Feeling cared about
  - Feeling caring
  - Self-compassion
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
Extra Strengths for Connection

- Feeling cared about and caring
- Feeling already connected
- Self-compassion
- Generosity
- Knowing that you are a good person
- Sense of community
- Healthy boundaries
- Compassionate assertiveness
- Not taking things personally
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
  - Understanding the need to get at younger layers
  - Compassion and support for the inner child
  - Capacity to “presence” young material without flooding
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, chosen
  - Appreciated, acknowledged, respected
  - Liked, befriended, supported
  - Loved, cherished, special
Pick a partner and choose an A and a B (A’s go first). Then you’ll take turns, with one partner mainly speaking while the other person 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.
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:
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  - Capable, skillful, talented, helpful
  - Included, wanted, sought out, chosen
  - Appreciated, acknowledged, respected
  - Liked, befriended, supported
  - Loved, cherished, special
Pick a partner and choose an A and a B (A’s go first). Then you’ll take turns, with one partner mainly speaking while the other person listens, exploring this question:

What was that practice like for you, exploring feelings of worth?

→ While listening, be as empathic as you can with your partner.
Strengths Supporting Responsive Approaches to Closeness and Rejection

- Seeing costs of Reactive and possibility 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 exploring this question:

What **inner strengths** do – or could – help you deal with challenges to **connection** (things that make you feel hurt, inadequate, resentful, hostile, or lonely) in **Responsive** ways?
Pick a partner and choose an A and a B (A’s go first). Then you’ll take turns, with one partner mainly speaking while the other person 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?
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
Suggested Books

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

Key Papers - 1

See www.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. 128


Key Papers - 4


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

Wellspring Institute: www.wisebrain.org

youtube.com/drrhanson  facebook.com/rickhansonphd