Buddha’s Brain:

Lighting up the Neural Circuits of Happiness, Love, and Wisdom

Esalen
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Topics 1

- Overview
- Self-directed neuroplasticity
- Self-compassion
- Resource yourself
- How to grow inner strengths
- The negativity bias
- Steadying the mind
- Cultivation
- Positive neuroplasticity: taking in the good
- Getting good at taking in the good
Topics 2

- The evolving brain
- Key resource experiences
- Flowers pulling weeds
- Being and doing
- Your loving nature
- A kind heart
- Feeding the hungry heart
- Equanimity
- Strength with heart
- Coming home
Overview
Neurons that fire together, wire together.
Ardent, Diligent, Resolute, and Mindful
Mindfulness of the wholesome
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 Built From Brain Structure
Gratitude
Learning to Take in the Good
Evolutionary History

The Triune Brain - (P. MacLean 1990)
Our Three Fundamental Needs

Safety

Satisfaction

Connection
Needs Met by Three Systems

Safety – Avoiding harms

Satisfaction – Approaching rewards

Connection – Attaching to others
Pet the Lizard
Feed the Mouse
Hug the Monkey
Self-Directed Neuroplasticity
Common - and Fertile - Ground

Contemplative Practice

Psychology  Neurology
Apart from the hypothetical influence of a transcendental X factor . . .

Awareness and unconsciousness, mindfulness and delusion, and happiness and suffering must be natural processes.

Mind is grounded in life.
We ask, “What is a thought?”

We don’t know,

yet we are thinking continually.

Venerable Tenzin Palmo
A Neuron
Mental activity entails underlying neural activity.
Pain network: Dorsal anterior cingulate cortex (dACC), insula (Ins), somatosensory cortex (SSC), thalamus (Thal), and periaqueductal gray (PAG). Reward network: Ventral tegmental area (VTA), ventral striatum (VS), ventromedial prefrontal cortex (VMPFC), and amygdala (Amyg). K. Sutliff, in Lieberman & Eisenberger, 2009, Science, 323:890-891
Repeated mental activity entails repeated neural activity.

Repeated neural activity builds neural structure.
Neurons that fire together, wire together.
The Opportunity

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

Your experience *matters*. Both for how it feels in the moment and for the lasting residues it leaves behind, woven into the fabric of your brain and being.
Self-Compassion
Self-Compassion

- Compassion is the wish that a being not suffer, combined with sympathetic concern. Self-compassion simply applies that to oneself. It is not self-pity, complaining, or wallowing in pain.

- Studies show that self-compassion buffers stress and increases resilience and self-worth.

- But self-compassion is hard for many people, due to feelings of unworthiness, self-criticism, or “internalized oppression.” To encourage the neural substrates of self-compassion:
  - Get the sense of being cared about by someone else.
  - Bring to mind someone you naturally feel compassion for
  - Sink into the experience of compassion in your body
  - Then shift the compassion to yourself, perhaps with phrases like: “May I not suffer. May the pain of this moment pass.”
“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
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
Resource Yourself
What Shapes Your Course in Life?

Challenges

Vulnerabilities

Resources
What Can You Usually Affect the Most?

Resources
Where Are Resources Located?

The World

The Body

The Mind
What Can You Usually Affect the Most?

The Mind
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 two questions:

What are some of the resources – inner strengths – inside your own mind?

What are some of the inner strengths that you’d like to develop?
How to Grow Inner Strengths
Two wolves in the heart
Inner Strengths Include

- **Capabilities** (e.g., mindfulness, insight, emotional intelligence, resilience, executive functions, impulse control)

- **Positive emotions** (e.g., gratitude, self-worth, love, self-compassion, secure attachment, gladness, awe, serenity)

- **Attitudes** (e.g., openness, determination, optimism, confidence, approach orientation, tolerance, self-respect)

- **Somatic inclinations** (e.g., vitality, relaxation, grit, helpfulness)

- **Virtues** (e.g., wisdom, patience, energy, generosity, restraint)
Inner Strengths Are Built From Brain Structure
Feeling alright right now
Be mindful of the difference between:

An **idea** and an **experience**

Noticing an experience and **creating** one

Having an experience and **internalizing** it
Why are we emphasizing internalization through enriching and absorbing?
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
Growing Inner Strengths

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 this installation, there is no learning, no change in the brain.
We’re good at activation but bad at installation.

This is the fundamental weakness in most patient education, human resources training, psychotherapy, coaching, and mindfulness training.
The same research that proves therapy works shows no improvement in outcomes over the last 30 or so years.

Scott Miller
Installation
Installation

Installation
Installation

Installation

Installation
To see what is in front of one’s nose takes a constant struggle.

George Orwell
Feeling Safer

- Tuning into bodily signals that you’re OK
- Recognizing protections
- Feeling unthreatened
- Releasing needless guarding, vigilance, tension, anxiety
The Negativity Bias
Unpleasant Experiences In Context

- Life contains unavoidable unpleasant experiences. Resisting them just adds to the stress, upset, etc.

- Some inner strengths come only from unpleasant experiences, e.g., knowing you’ll do the hard thing.

- But unpleasant experiences have inherent costs, in their discomfort and stress.

- Many inner strengths could have been developed without the costs of unpleasant experiences.

- Most unpleasant experiences are pain with no gain.
The Brain’s Negativity Bias

- As our ancestors evolved, avoiding “sticks” was more important for survival than getting “carrots.”

- Negative stimuli:
  - More attention and processing
  - Greater motivational focus: loss aversion

- Preferential encoding in implicit memory:
  - We learn faster from pain than pleasure.
  - Negative interactions: more impactful than positive
  - Easy to create learned helplessness, hard to undo
  - Rapid sensitization to negative through cortisol
Vicious Cycles in the Brain

- Amygdala initiates stress response ("alarm bell")
- Hippocampus:
  - Forms and retrieves contextual memories
  - Inhibits the amygdala
  - Inhibits cortisol production
- Cortisol:
  - Stimulates and sensitizes the amygdala
  - Inhibits and can shrink the hippocampus
- Consequently, chronic negative experiences:
  - Sensitize the amygdala alarm bell
  - Weaken the hippocampus: this reduces memory capacities and the inhibition of amygdala and cortisol production
  - Thus creating vicious cycles in the NS, behavior, and mind
Velcro for Bad, Teflon for Good

The negativity bias

bad experiences

good experiences
The Negativity Bias
Stone age brains in the 21st century
We can deliberately use the mind
to change the brain for the better.
Steadying the Mind
Basics of Meditation

- Relax; posture that is comfortable and alert
- Simple good will toward yourself
- Awareness of your body
- Focus on something to steady your attention
- Accepting whatever passes through awareness
- Gently settling into peaceful well-being
7 Neural Factors of Mindfulness

- Setting an intention - “top-down” frontal, “bottom-up” limbic
- Relaxing the body - parasympathetic nervous system
- Feeling cared about - social engagement system
- Feeling safer - inhibits amygdala/hippocampus alarms
- Encouraging positive emotion - dopamine, norepinephrine
- Panoramic view - lateral networks
- Absorbing the benefits - positive implicit memories
Cultivation
Cultivation in Context

Three ways to engage the mind:

- Be with it. Decrease negative. Increase positive.
- Let be. Let go. Let in.

Mindfulness present in all three ways to engage mind

While “being with” is primary, it’s often isolated in mindfulness-based practices.

Skillful means for decreasing the negative and increasing the positive have developed over 2500 years. Why not use them?
Join us for **Cultivating Inner Strength - Monastic Daylong [Dana - No Fee Day]**
with Ayya Anandabodhi and Ayya Santacitta on **Sunday, July 8**
from 9:30 am - 5 pm.

(Photo by Ed Ritger)
Cultivation Undoes Craving

- All life has goals. The brain continually seeks to avoid harms, approach rewards, and attach to others - even that of a Buddha.

- It is wholesome to wish for the happiness, welfare, and awakening of all beings - including the one with your nametag.

- We rest the mind upon positive states so that the brain may gradually take their shape. This disentangles us from craving as we increasingly rest in a peace, happiness, and love that is independent of external conditions.

- With time, even the practice of cultivation falls away - like a raft that is no longer needed once we reach the farther shore.
Know the mind.

Shape the mind.

Free the mind.
Positive Neuroplasticity: Taking in the Good
Learning to Take in the Good
Have a Good Experience
The Two Ways To Have a Beneficial Experience

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

Create one.
Aspects of Experience

- **Thoughts** – verbal and nonverbal
- **Perceptions** - sensations; relaxation; vitality
- **Emotions** - both feelings and mood
- **Desires** – values; aspirations; passions; wants
- **Behaviors** - reportoire; inclinations
- **Awareness** – wakefulness; “field” of experiences
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.
Reflections So Far

Noticing and creating an experience are different.

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.
Enrich It
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
Absorb It
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”
Link Positive and Negative Material
HEAL by Taking in the Good

1. **Have** a positive experience. Notice it or create it.

2. **Enrich** the experience through duration, intensity, multimodality, novelty, personal relevance

3. **Absorb** the experience by intending and sensing that it is sinking into you as you sink into it.

4. **Link** positive and negative material. [optional]
Have It, Enjoy It
It’s Good to Take in the Good

- Development of specific inner strengths
  - General - resilience, positive mood, feeling loved
  - Key resources – For challenges, deficits, wounds

- 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
Study on the HEAL Process

- With collaborators from the University of California, a 2013 study on the HEAL course, using a randomized waitlist control group design (46 subjects).

- Course participants, compared to the control group, reported more Contentment, Self-Esteem, Satisfaction with Life, Savoring, and Gratitude.

- After the course and at two month follow-up, pooled participants also reported more Love, Compassion, Self-Compassion, Mindfulness, Self-Control, Positive Rumination, Joy, Amusement, Awe, and Happiness, and less Anxiety and Depression.
Combined Sample: Depression (BDI) & Anxiety (BAI)

![Graph showing the change in mean scores for Depression (BDI) and Anxiety (BAI) over time: Pre-Course, Post-Course, and 2-Months Later.](image)
Feeling strong
Getting Good at Taking in the Good
Occasions for Taking in the Good

- 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
Resources for Taking in the Good

- Intention; willing to feel good
- Identified target experience
- Openness to the experience; embodiment
- Mindfulness of the steps of TG to sustain them
- Working through blocks
Obstructions to Taking in the Good

- General:
  - Distractibility
  - Blocks to self-awareness in general

- Specific:
  - Fears of lowering one’s guard
  - Sense of disloyalty to others (e.g., survivor guilt)
  - Culture (e.g., selfish, vain, sinful)
  - Gender style
  - Associations to painful states
  - Secondary gains in feeling bad
  - Not wanting to let someone off the hook
The Four Ways to Offer a Method

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

- All kids benefit from TG. Particular benefits for 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: benefits, “be the boss of your own mind.”
  - Down to earth, naturalistic
  - Scaffold based on executive functions, motivation, and need for autonomy.
  - Brief, concrete
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
- Strengthening the sense of being an active learner
- Developing child-specific 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 this question:

What are some of the ways you could use positive neuroplasticity with others?
The Evolving Brain
Biological Evolution

- 4+ billion years of earth
- 3.5 billion years of life
- 650 million years of multi-celled organisms
- 600 million years of nervous system
- 200 million years of mammals
- 60 million years of primates
- 6 million years ago: ancestor with chimpanzees
- 2.5 million years of tool-making
- 150,000 years of *homo sapiens*
Evolutionary History

The Triune Brain - (P. MacLean 1990)
Three Stages of Brain Evolution

- **Reptilian:**
  - Brainstem, cerebellum, hypothalamus
  - Reactive and reflexive
  - *Avoid* hazards

- **Mammalian:**
  - Limbic system, cingulate, early cortex
  - Memory, emotion, social behavior
  - *Approach* rewards

- **Human:**
  - Massive cerebral cortex
  - Abstract thought, language, cooperative planning, empathy
  - *Attach* to “us”
Our Three Fundamental Needs

Safety

Satisfaction

Connection
Three Fundamental Motivational and Self-Regulatory Systems

- **Avoid Harms:**
  - Primary need, tends to trump all others
  - Functional in first animals, in brainstem

- **Approach Rewards:**
  - Functional in first animals, in brainstem
  - Elaborated via sub-cortex in mammals for emotional valence, sustained pursuit, etc.

- **Attach to Others:**
  - Functional in mammals and birds, in sub-cortex
  - Very elaborated via cortex in humans for pair bonding, language, empathy, cooperative planning, compassion, altruism, etc.
"With all due respects, I find your disparaging remarks about the 'reptilian brain' unnecessary"
Reverse Engineering the Brain

What’s the state of the brain when a person is:

- In peak states of productivity or “flow?”
- Experiencing inner peace?
- Self-actualizing?
- Enlightened (or close to it)?
The Homeostatic Home Base

*When not invaded by threat, loss, or rejection [no felt deficit or disturbance of safety, satisfaction, and connection]*

The **body** defaults to a sustainable equilibrium of refueling, repairing, and pleasant abiding.

The **mind** defaults to a 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.
The Responsive Mode

- Avoid
- Peace
- Approach

- Wisdom
- Contentment

- Love
- Attach
Sam sees “peeping among the cloud-wrack . . . a white star twinkle for a while.

The beauty of it smote his heart, as he looked up out of the forsaken land, and hope returned to him.

For like a shaft, clear and cold, the thought pierced him that in the end the Shadow was only a small and passing thing: there was light and high beauty forever beyond its reach.”

Tolkein, The Lord of the Rings
But to Cope with Urgent Needs, We Leave Home . . .

When invaded by threat, loss, or rejection [felt deficit or disturbance of safety, satisfaction, or connection]:

The body fires up into the stress response; outputs exceed inputs; long-term building is deferred.

The mind fires up into:

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

This is the brain in allostatic, Reactive, craving mode.
Neurobiological Basis of Craving

When disturbed by threat, loss, or rejection [deficit of safety, satisfaction, or connection]:

The body fires up into the stress response; outputs exceed inputs; long-term building is deferred.

The mind fires up into:

- **Hatred** (the Avoiding system)
- **Greed** (the Approaching system)
- **Heartache** (the Attaching system)

This is the brain in allostatic, **Reactive, craving** mode.
The Reactive Mode
Reactive Dysfunctions in Each System

- **Avoid** - Anxiety disorders; PTSD; panic, terror; rage; violence

- **Approach** - Addiction; over-drinking, -eating, -gambling; compulsion; hoarding; driving for goals at great cost; spiritual materialism

- **Attach** - Borderline, narcissistic, antisocial PD; symbiosis; *folie a deux*; “looking for love in all the wrong places”
Choices . . .

Or?

Reactive Mode

Responsive 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.
Coming Home . . .

Peace

Happiness

Love
Key Resource Experiences
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
Pet the Lizard
Feed the Mouse
Hug the Monkey
Flowers Pulling Weeds
Using Memory Mechanisms to Help Heal Painful Experiences

- The machinery of memory:
  - When explicit or implicit memory is reactivated, it is rebuilt from schematic elements, not retrieved in toto.
  - When attention moves on, the memory gets reconsolidated.

- The open processes of memory reactivation and reconsolidation create a window of opportunity for shaping your internal world.

- Reactivated material associates with other things in awareness, especially if they are prominent and lasting.

- When memory returns to storage, it takes associations with it.

- You can imbue memory with positive associations.
The Fourth Step of TIG

- When you are having a positive experience:
  - Sense the current positive experience sinking down into old pain, and soothing and replacing it.

- When you are having a negative experience:
  - Bring to mind a positive experience that is its antidote.

- In both cases, have the positive experience be big and strong, in the forefront of awareness, while the negative experience is small and in the background.

- You are not resisting negative experiences or getting attached to positive ones. You are being kind to yourself and cultivating positive resources in your mind.
The Tip of the Root

For the fourth step of TIG, try to get at the youngest, most vulnerable layer of painful material.

The “tip of the root” is commonly in childhood. In general, the brain is most responsive to negative experiences in early childhood.

Prerequisites

- Understanding the need to get at younger layers
- Compassion and support for the inner child
- Capacity to “presence” young material without flooding
Psychological Antidotes

**Avoiding Harms**
- Strength, efficacy --> Weakness, helplessness, pessimism
- Safety, security --> Alarm, anxiety
- Compassion for oneself and others --> Resentment, anger

**Approaching Rewards**
- Satisfaction, fulfillment --> Frustration, disappointment
- Gladness, gratitude --> Sadness, discontentment, “blues”

**Attaching to Others**
- Attunement, inclusion --> Not seen, rejected, left out
- Recognition, acknowledgement --> Inadequacy, shame
- Friendship, love --> Abandonment, feeling unloved or unlovable
Being and Doing
## Dual Modes

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<th>“Being”</th>
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Increased **Medial** PFC Activation Related to Self-Referencing Thought

Cortical Midline Areas for Self-Referencing Thought

Self-Focused (blue) and Open Awareness (red) Conditions (in the novice, pre MT group)

Self-Focused (blue) vs Open Awareness (red) Conditions (following 8 weeks of MT)

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“Bahiya, you should train yourself thus.”

In reference to the seen, there will be only the seen. To the heard, only the heard. To the sensed, only the sensed. To the cognized, only the cognized.

When for you there will be only the seen in reference to the seen, only the heard in the heard, only the sensed in the sensed, only the cognized in the cognized, then, Bahiya, there’s no you in that.

When there’s no you in that, there’s no you there. When there’s no you there, you are neither here nor yonder nor between the two.

This, just this, is the end of all suffering.

The Buddha
Ways to Activate “Being” Mode

- Relax
- Focus on bare sensations and perceptions
- Sense the body as a whole
- Take a panoramic, “bird’s-eye” view

- Engage “don’t-know mind”; release judgments
- Don’t try to connect mental contents together
- Let experience flow, staying here now

- Relax the sense of “I, me, and mine”
Whole Body Awareness

- Sense the breath in one area (e.g., chest, upper lip)
- Sense the breath as a whole: one gestalt, percept
- Sense the body as a whole, a whole body breathing
- Sense experience as a whole: sensations, sounds, thoughts . . . all arising together as one unified thing
- It’s natural for this sense of the whole to be present for a second or two, then crumble; just open up to it again and again.
Your Loving Nature
The Social Brain

- Social capabilities have driven recent brain evolution.
- Mammals and birds: bigger brains than reptiles and fish.
- More social primate species have larger cortex.
- Much of the brain’s tripling in size is for social functions (e.g., cooperative planning, empathy, language). The growing brain needed a longer childhood, which required greater pair bonding and band cohesion.
A Kind Heart
Us and Them

- Core evolutionary strategy: within-group cooperation, and between-group aggression.

- Both capacities and tendencies are hard-wired into our brains, ready for activation. And there is individual variation.

- Our biological nature is much more inclined toward cooperative sociability than toward aggression and indifference or cruelty. We are just very reactive to social distinctions and threats.

- That reactivity is intensified and often exploited by economic, cultural, and religious factors.

- Two wolves in your heart:
  - Love sees a vast circle in which all beings are “us.”
  - Hate sees a small circle of “us,” even only the self.

Which one will you feed?
In between-family fights, the baboon’s ‘I’ expands to include all of her close kin; in within-family fights, it contracts to include only herself.

This explanation serves for baboons as much as for the Montagues and Capulets.

Dorothy Cheney and Robert Seyfarth
If we could read the secret history of our enemies, we should find in each [person's] life sorrow and suffering enough to disarm any hostility.

Henry Wadsworth Longfellow
The Wisdom of Connection

A human being is a part of a whole, called by us “universe,” a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest... a kind of optical delusion of his consciousness.

This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us.

Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.

Albert Einstein
The Buddha’s Words on Lovingkindness

Wishing: In gladness and in safety, may all beings be at ease.

Omitting none, whether they are weak or strong, the great or the mighty, medium, short, or small, the seen and the unseen, those living near and far away, those born and to-be-born: May all beings be at ease.

Let none through anger or ill-will wish harm upon another. Even as a mother protects with her life her child, her only child, so with a boundless heart should one cherish all living beings; radiating kindness over the entire world: spreading upwards to the skies, and downwards to the depths, outwards and unbounded, freed from hatred and ill-will.

One should sustain this recollection.

This is said to be the sublime abiding.
Lovingkindness Practice

- Types of wishes
  - Safety
  - Health
  - Happiness
  - Ease

- Types of beings
  - Self
  - Benefactor
  - Friend
  - Neutral
  - Difficult

- Continually “omitting none” in all directions
Feeding the Hungry Heart
Healthy “Narcissistic Supplies”

- Healthy development requires caregivers to give a child extensive mirroring, attunement, and prizing; healthy adult relationships require much the same.

- These are normal “narcissistic supplies.” Deficits lead to:
  - Feelings of inadequacy, worthlessness, and shame
  - Tendencies toward extremes of clinging or distance

- As an adult, you can take in narcissistic supplies, gradually weaving them into your brain and your being.

- This is not clinging to praise, etc. It is filling the hole in your heart so your happiness is increasingly unconditional - not dependent on external events.
Feeling Prized

- It is natural and important to feel that your **person** is special to others: appreciated, acknowledged, respected, cherished, prized.

- Bring to mind experiences of:
  - Being praised, complimented, acknowledged
  - A time you knew you were appreciated, perhaps after some contribution or generosity
  - Being wanted by someone; wanted by a group
  - Feeling cherished by someone

- In daily life, look for experiences of being prized, including in small ways, and then savor them so they sink in.
Feeling Like a Good Person

Everyone has good qualities. No halo is required to have patience, determination, fairness, honesty, kindness, etc.

Recognizing these qualities in yourself is simply seeing reality with clear eyes, just like recognizing good food in your cupboard or good qualities in another person.

Methods:

- Pick a good quality that you know you have.
- Pay attention to any obstructions to recognizing and appreciating this good quality. Let them be . . . then let them go and return attention to the good quality.
- Gather evidence for this good quality in you (e.g., examples).
- Be mindful of what the good quality feels like in your body and mind; let it sink in.
- Consider how this good quality contributes to yourself and others.
- Open to a simple gladness for this good quality; let it sink in.
Equanimity
The First and Second Dart

- The Buddha referred to unavoidable discomfort - including disease, old age, death, and sorrow at harms befalling others - as the “first dart.”

- Then we add our reactions to that first dart. For example, one could react to a physical pain with anxiety, then anger at oneself for feeling anxious, then sadness linked to not being comforted as a child.

- Sometimes we react with suffering when there is no first dart at all, simply a condition that there is no need to get upset about.

- And sometimes we react with suffering to positive events, such as a compliment or an opportunity.

- The Buddha called these reactions “second darts” - the ones we throw ourselves.
Parasympathetic Nervous System

- The “rest-and-digest” parasympathetic nervous system (PNS) balances and dials down the “fight-or-flight” sympathetic nervous system.

- It soothes, resets, renews the body-mind. Though the SNS gets more press, the PNS is more primary.
Cooling the Fires

- Recognize that stress is not good for you. Get on your own side to prevent and minimize it.

- Cultivate relaxation and calm in your resting state.

- When you get stressed, activating a PNS, “cooling” cascade:
  - Inhale super-fully; hold it; l-o-n-g exhalation; repeat
  - Relax the tongue
  - Touch the lips
  - Relax the body
Liking and Wanting

- Distinct neural systems for liking and wanting

- In the brain: feeling/hedonic tone --> enjoying (liking) --> wanting --> pursuing
  - Wanting without liking is hell.
  - Liking without wanting is heaven.

- The distinction between *chandha* (wholesome wishes and aspirations) and *tanha* (craving)

- But beware: the brain usually wants (craves) and pursues (clings to) what it likes.
I make myself rich by making my wants few.

Henry David Thoreau
Practicing with Wanting

- Positive wants (e.g., practice, sobriety, love, aspirations) crowd out negative ones.

- Surround pleasant or unpleasant hedonic tones with spacious awareness - the “shock absorber” - without tipping into craving.

- Regard wants as just more mental content. Investigate them. Watch them come and go. No compulsion, no “must.”

- Be skeptical of predicted rewards - simplistic and inflated, from primitive subcortical regions. Explore healthy disenchantment.

- Pick a key want and just don’t do it.
No self,

No problem
Strength with Heart
What Is Empathy?

- It is sensing, feeling, and understanding how it is for the other person. In effect, you *simulate* his or her inner world.

- It involves (sometimes subtly) all of these elements:
  - Bodily resonance
  - Emotional attunement
  - Conceptual understanding

- Empathy is usually communicated, often tacitly.

- We can give empathy, we can receive it, and we can ask for it.
Neural Substrates of Empathy

- Three *simulating* systems:
  - **Actions**: “mirror” systems; temporal-parietal
  - **Feelings**: resonating emotionally; insula
  - **Thoughts**: “theory of mind”; prefrontal cortex

- These systems interact with each other through *association* and active *inquiry*.

- They produce an automatic, continual re-creation of aspects of others’ experience.
Empathy Skills

- Pay attention.
- Be open.
- Read emotion in face and eyes.
- Sense beneath the surface.
- Drop aversion (judgments, distaste, fear, anger, withdrawal).
- Investigate actively.

Express empathic understanding:
- Reflect the content
- Resonate with the tone and implicit material
- Questions are fine
- Offer respect and wise speech throughout
Reflections about Empathy

- You’re more likely to get empathy if you’re:
  - Open, present
  - Honest, real, authentic
  - Reasonably clear
  - Responsible for your own experience
  - Taking it in when you feel felt

- Empathy can be negotiated:
  - Name it as a topic in the relationship
  - Follow NVC format: “When X happens, I feel Y, because I need Z. So I request ______ .”
  - Stay with it.
Wise Speech

- Well-intended
- True
- Beneficial
- Timely
- Expressed without harshness
- If possible: wanted
There are those who do not realize that one day we all must die. But those who do realize this settle their quarrels.

The Buddha
If you let go a little, you will have a little happiness.

If you let go a lot, you will have a lot of happiness.

If you let go completely, you will be completely happy.

Ajahn Chah
Benefits of Unilateral Virtue

- It simplifies things: all you have to do is live by your own code, and others will do whatever they do.

- It feels good in its own right; it brings peace of mind, “the bliss of blamelessness.”

- It minimizes inflammatory triggers, and encourages good behavior in others.

- It stands you on the moral high ground.

- It teaches you what you can ask for from others.
Healthy Assertiveness

What it is: Speaking your truth and pursuing your aims in the context of relationships

What supports it:
- Being on your own side
- Self-compassion
- Naming the truth to yourself
- Refuges: Three Jewels, reason, love, nature, God
- Taking care of the big things so you don’t grumble about the little ones
- Health and vitality
Healthy Assertiveness: How to Do It - 1

- Know your aims; stay focused on the prize; lose battles to win wars
- Ground in empathy, compassion, and love
- Practice unilateral virtue
Healthy Assertiveness: How to Do It - 2

- Communicate for yourself, not to change others
  - Wise Speech; be especially mindful of tone
  - NVC: “When X happens, I feel Y because I need Z.”
  - Dignity and gravity
  - Distinguish empathy building (“Y”) from policy-making

- If appropriate, negotiate solutions
  - Establish facts as best you can (“X”)
  - Find the deepest wants (“Z”)
  - Focus mainly on “from now on”
  - Make clear plans, agreements
  - Scale relationships to their actual foundations
Coming Home
The Fruit as the Path

Peace

Contentment

Love
Penetrative insight

joined with calm abiding

utterly eradicates

afflicted states.

Shantideva
Suggested Books

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

Key Papers - 1

See www.RickHanson.net for other scientific papers.


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


Key Papers - 4


Feeling Already Full

- Sensing enoughness for the body
- Feeling buoyed and nurtured by the natural world
- Awareness of phenomena filling the mind
- Feeling filled by each moment’s arisings even as they pass away
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