
*Indeed, the sage who's fully quenched
Rests at ease in every way;
No sense desire adheres to him or her
Whose fires have cooled, deprived of fuel.*

*All attachments have been severed,
The heart's been led away from pain;
Tranquil, he or she rests with utmost ease.
The mind has found its way to peace.*

The Buddha

Equanimity:

In the Dharma and in Your Brain

Spirit Rock Meditation Center

March 30, 2014

Rick Hanson, Ph.D.

www.WiseBrain.org www.RickHanson.net

Topics

- **Perspectives**
- **Self-directed neuroplasticity**
- **Self-compassion**
- **Growing inner strengths**
- **The 2nd and 3rd Noble Truths**
- **Stop throwing darts**
- **The Avoiding system**
- **The Approaching system**
- **The Attaching system**
- **Eddies in the stream**
- **The fruit as the path**



Perspectives

What Is Equanimity?

- Balance - not reacting to the fleeting stream of experience
- Steadiness - sustained through all circumstances
- Presence - engaged with the world but not troubled by it; guided by values and virtues, not reactive patterns

The ancient circuitry of the brain continually triggers reactions. Equanimity is the circuit breaker that prevents the craving (broadly defined) that leads to suffering.

Equanimity is thus at the center of Buddhist practice.

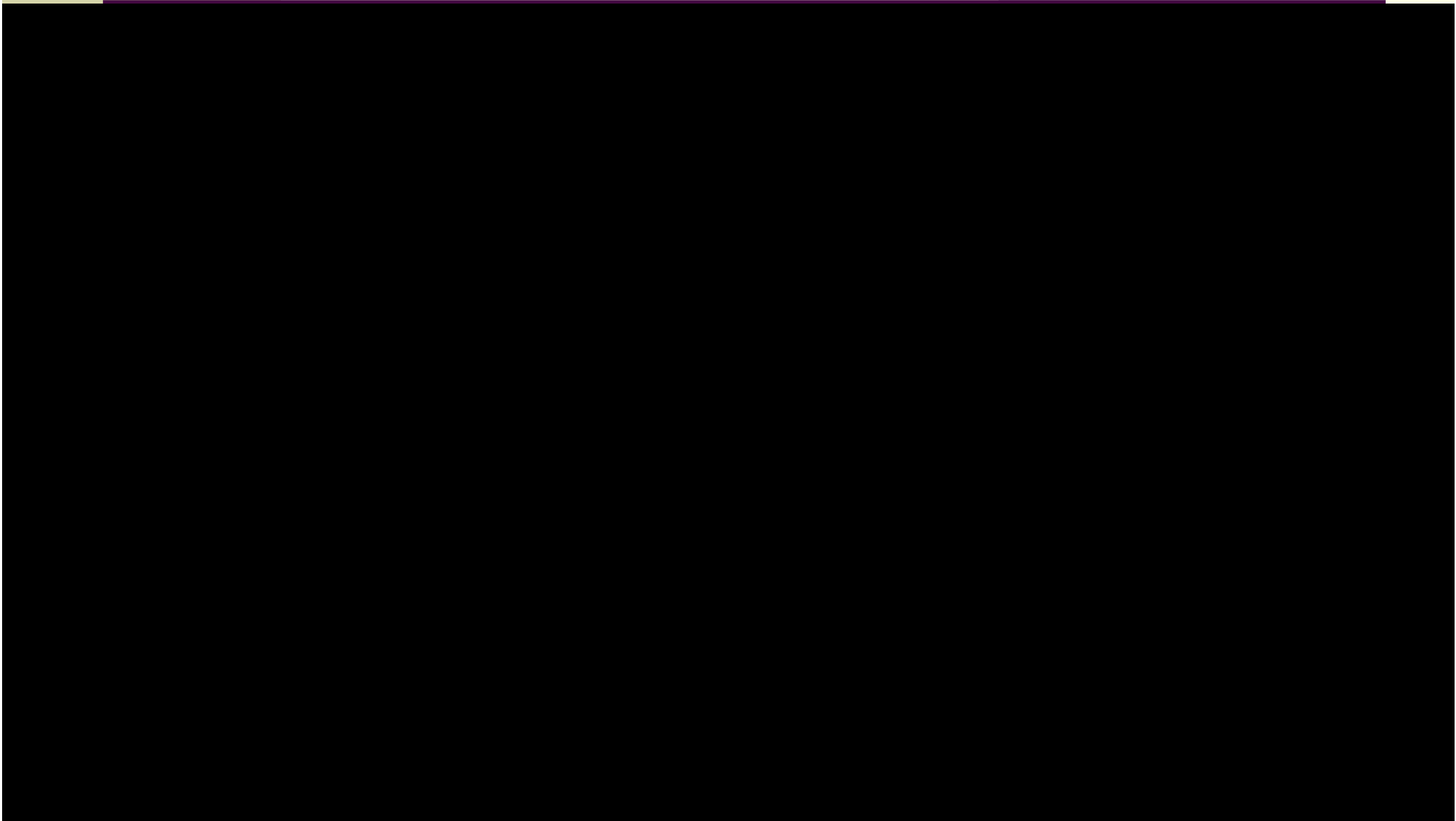
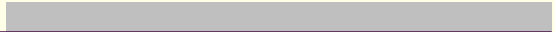
Penetrative insight

joined with calm abiding

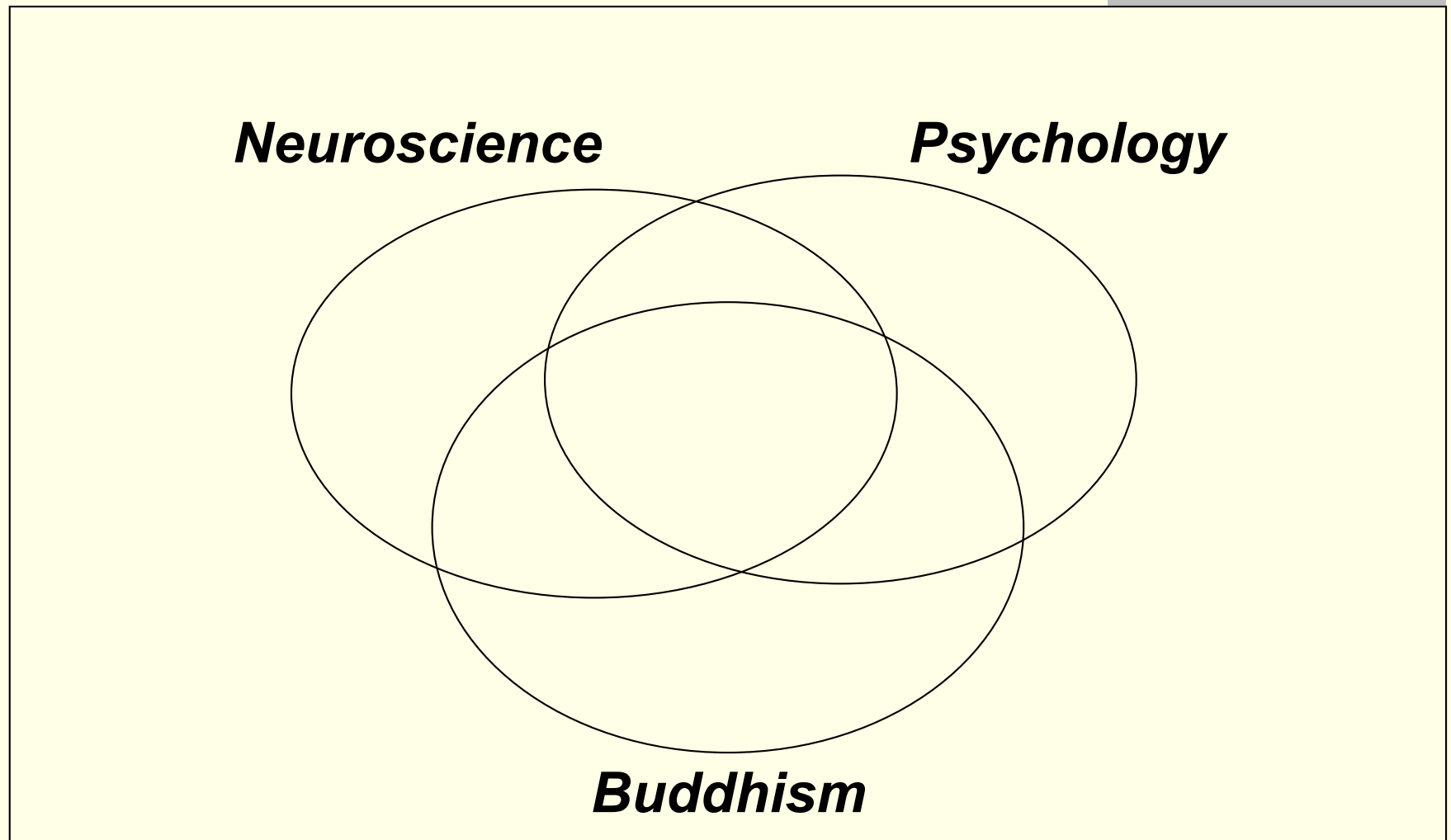
utterly eradicates

afflicted states.

Shantideva

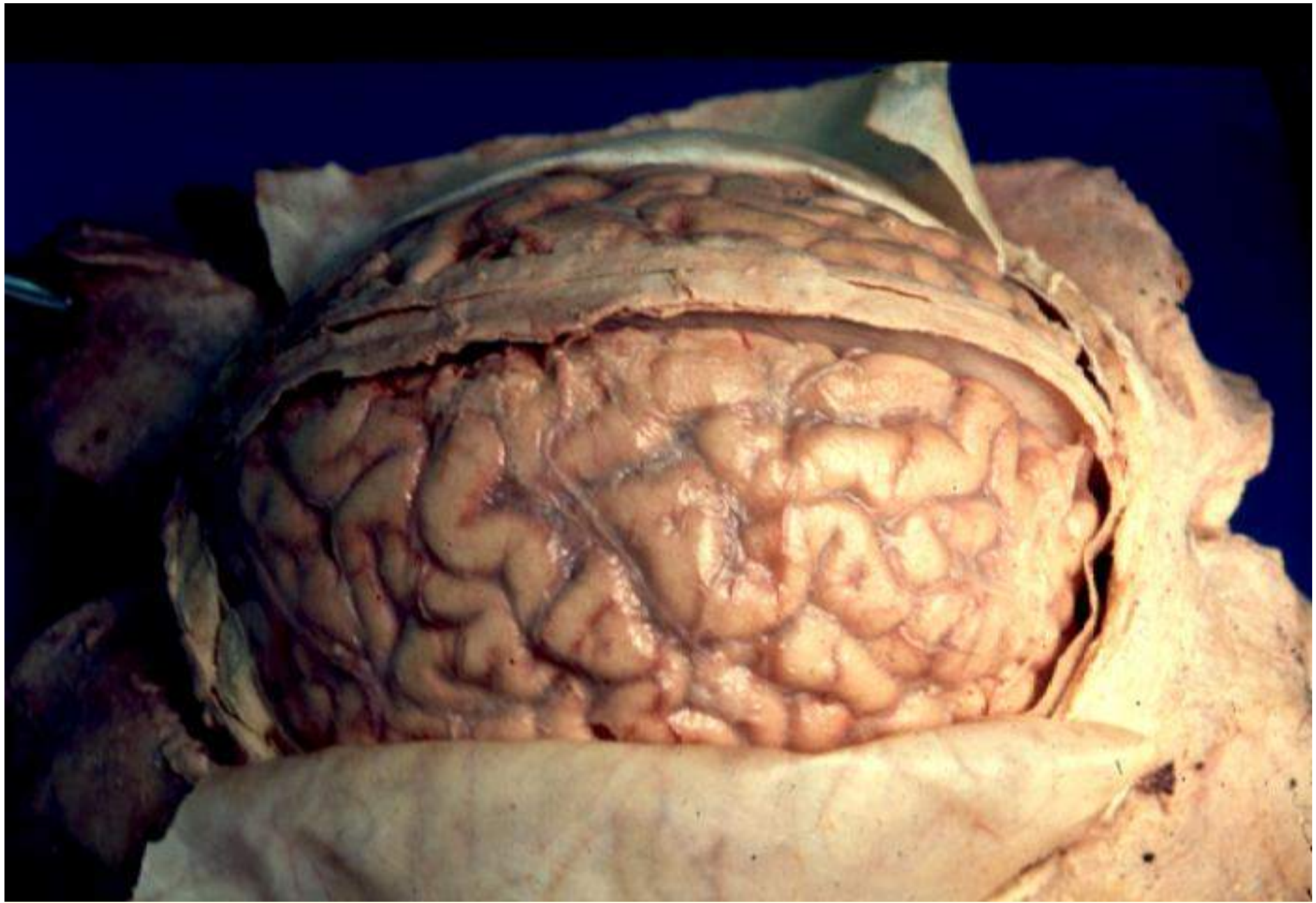


Common - and Fertile - Ground





Self-Directed Neuroplasticity



The Natural Mind

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,

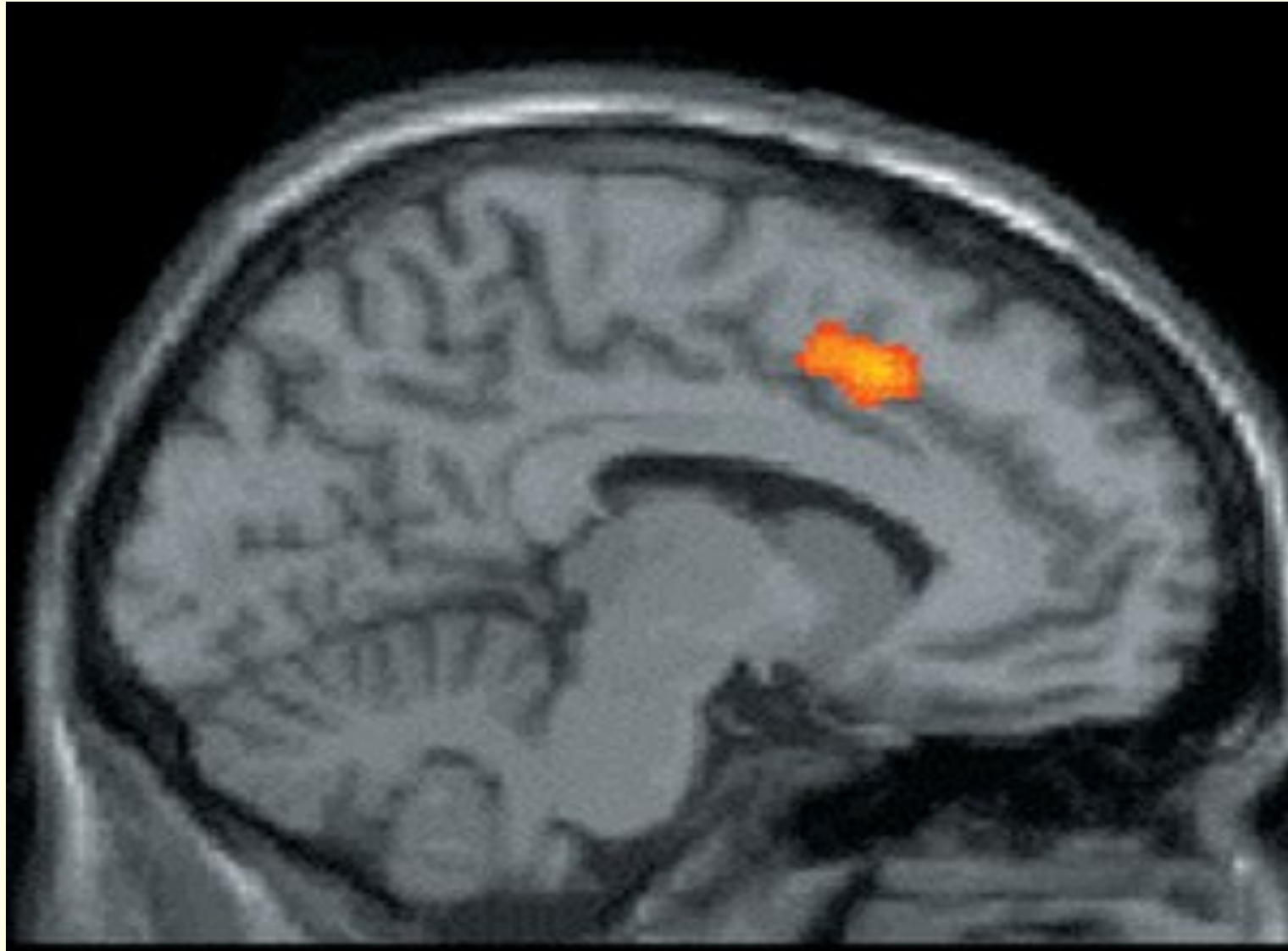
yet we are thinking continually.

Venerable Tenzin Palmo



**Mental activity entails
underlying neural activity.**

Ardent, Diligent, Resolute, and Mindful



**Repeated mental activity entails
repeated neural activity.**

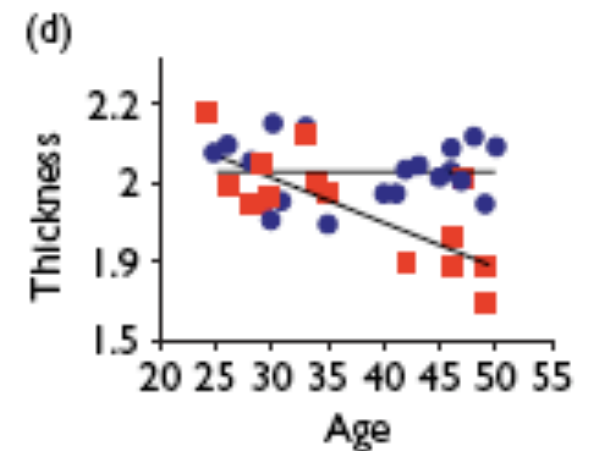
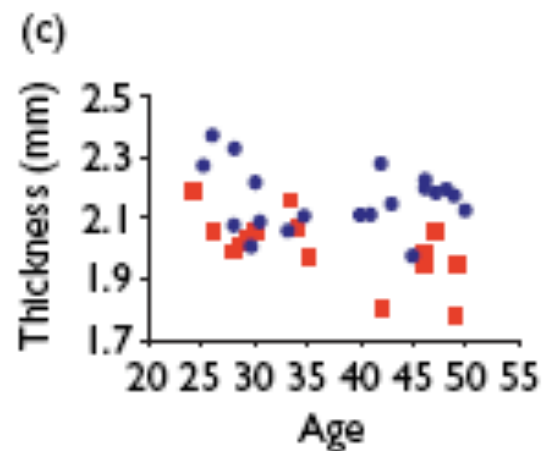
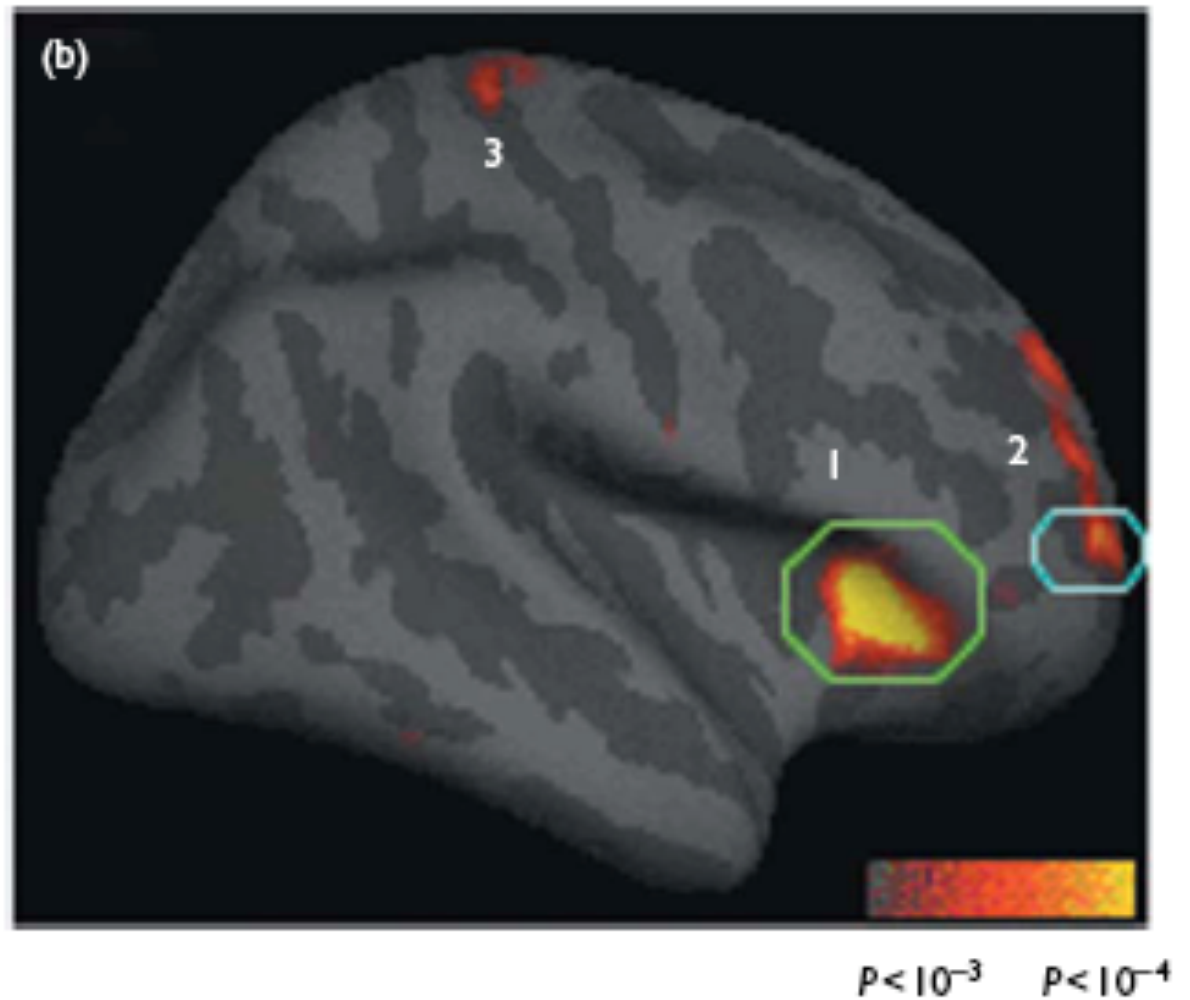
**Repeated neural activity
builds neural structure.**

A network of glowing yellow neurons with a central neuron highlighted in green. The neurons are interconnected by a dense web of thin, yellow, fiber-like structures. The central neuron has a bright green nucleus and is surrounded by a network of yellow fibers. The background is dark, making the glowing neurons stand out.

Neurons that fire together,

wire together.

Lazar, et al. 2005.
Meditation
experience is
associated
with increased
cortical thickness.
Neuroreport, 16,
1893-1897.



The Opportunity

We can use the mind

To change the brain

To change the mind for the better

To benefit ourselves and other beings.



Self-Compassion

*If one going down into a river,
swollen and swiftly flowing,
is carried away by the current --
how can one help others across?*

The Buddha

*The root of Buddhism is compassion,
and the root of compassion is compassion for oneself.*

Pema Chodren

Self-Compassion

- Compassion is the wish that someone not suffer, combined with feelings of sympathetic concern. Self-compassion simply applies that to oneself. It is not self-pity, complaining, or wallowing in pain.
- Self-compassion is a major area of research, with studies showing that it 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 focus of 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



Growing Inner Strengths

The image is a composite of two side-by-side close-up photographs of wolves. The left photograph shows a domestic-looking wolf with thick, grey and white fur, looking slightly to the right with its mouth open, showing its teeth. The right photograph shows a wild-looking wolf with thinner, grey and brown fur, looking down and to the left with its mouth open, showing its teeth. The text "Two wolves in the heart" is overlaid in a white, serif font across the center of both images.

Two wolves in the heart

Major Buddhist Inner Strengths

Mindfulness

Compassion

View

Investigation

Kindness

Intention

Energy

Altruistic joy

Effort

Bliss

Tranquility

Virtue

Conviction

Concentration

Wisdom

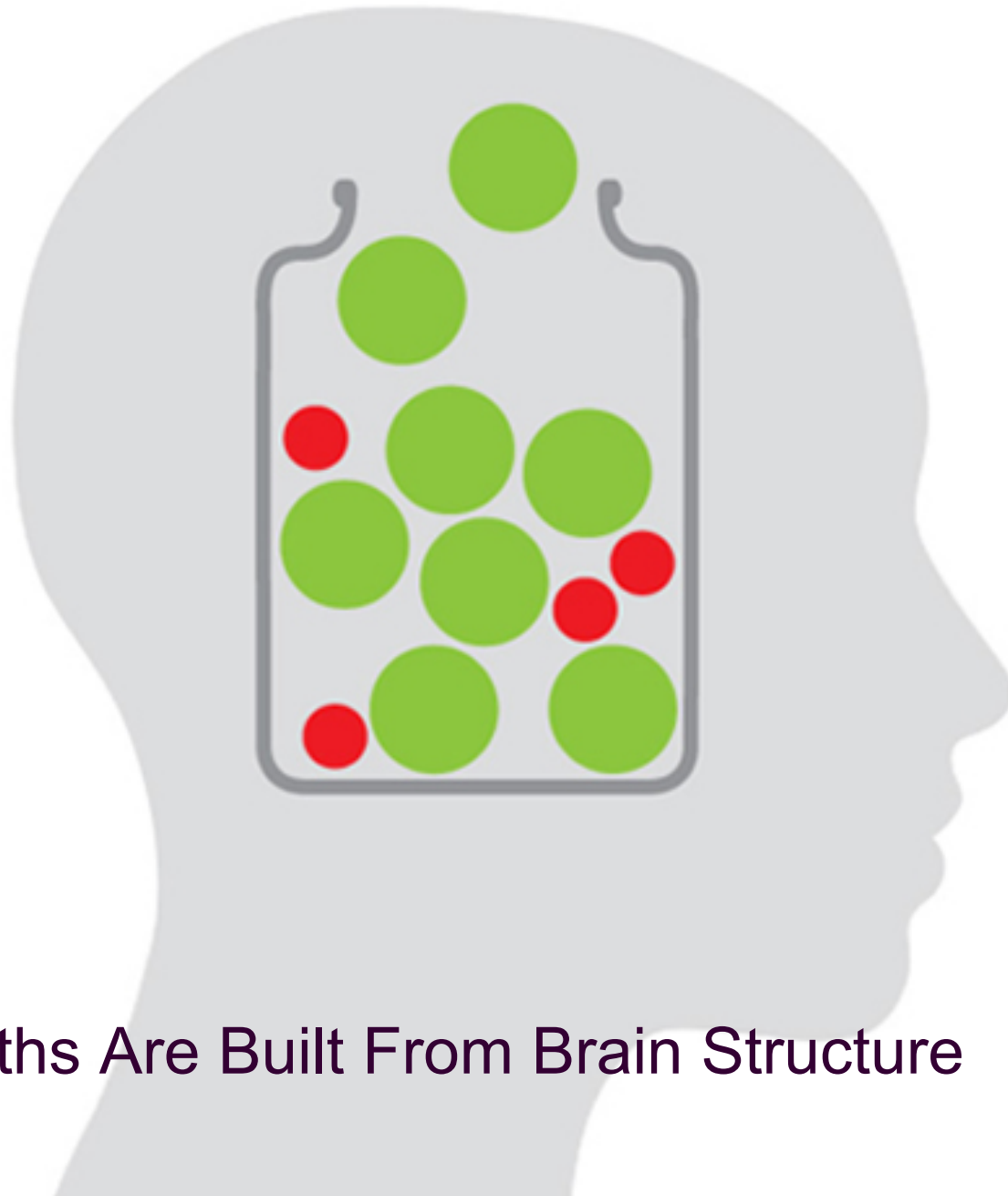
Generosity

Equanimity

Patience

Inner Strengths Include

- **Virtues** (e.g., patience, energy, generosity, restraint)
- **Executive functions** (e.g., meta-cognition)
- **Attitudes** (e.g., optimism, openness, confidence)
- **Capabilities** (e.g., mindfulness, emotional intelligence, resilience)
- **Positive emotions** (e.g., gratitude, self-compassion)
- **Approach orientation** (e.g., curiosity, exploration)



Inner Strengths Are Built From Brain Structure

Growing Inner Strengths

Inner strengths are grown from positive mental states that are turned into positive neural traits.

Change in neural structure and function (learning, memory) involves activation and installation.

We become more compassionate by repeatedly internalizing feelings of compassion; etc.

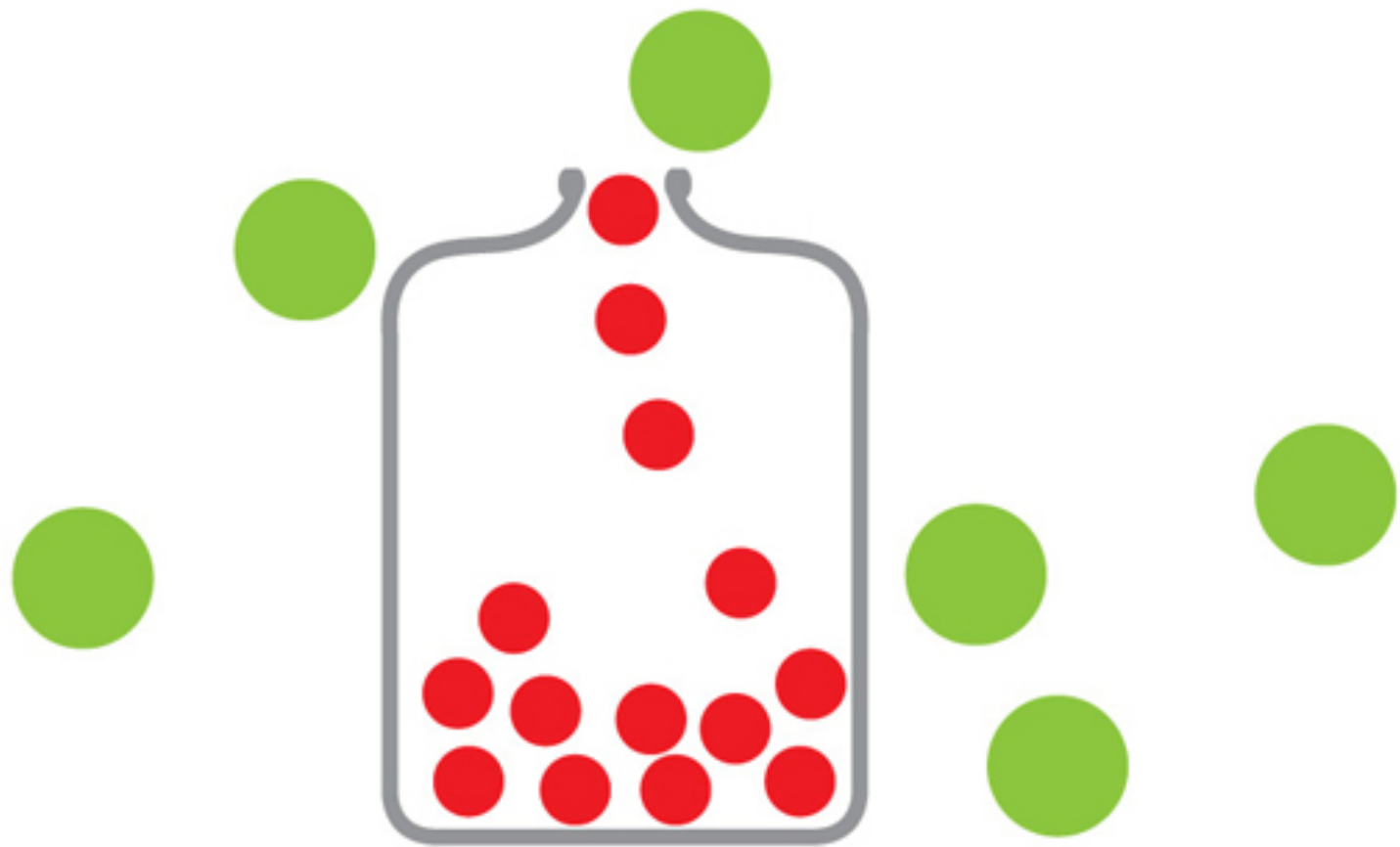
Without **installation**, there is no growth, no learning, no lasting benefit.

Negative Experiences In Context

- Going negative about negative --> more negative
- Some inner strengths come only from negative experiences, e.g., knowing you'll do the hard thing.
- But negative experiences have inherent costs, in discomfort and stress.
- Many inner strengths could have been developed without the costs of negative experiences.
- Many negative 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



The Negativity Bias

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.

Let's Try It

- **Notice** the experience already present in awareness that you are alright right now
 - Have the experience
 - Enrich it
 - Absorb it

- **Create** the experience of compassion
 - Have the experience - bring to mind someone you care about . . . Feel caring . . . Wish that he or she not suffer . . . Open to compassion
 - Enrich it
 - Absorb it

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

Lao Tsu

The Role of Cultivation

- Three fundamental ways to engage the mind:
 - Be with it. Decrease negative. Increase positive.
 - The garden: Observe. Pull weeds. Plant flowers.
 - Let be. Let go. Let in.
 - Mindfulness present in all three ways to engage mind
- While “being with” is profound, it can be isolated and over-valued in some therapies or spiritual practices.
- Skillful means for decreasing the negative and increasing the positive have developed over thousands of years. Why not use them?



SPIRIT ROCK MEDITATION CENTER



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)



Know the mind.

Shape the mind.

Free the mind.

*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.*



The 2nd and 3rd Noble Truths

A Telling of the Four Noble Truths

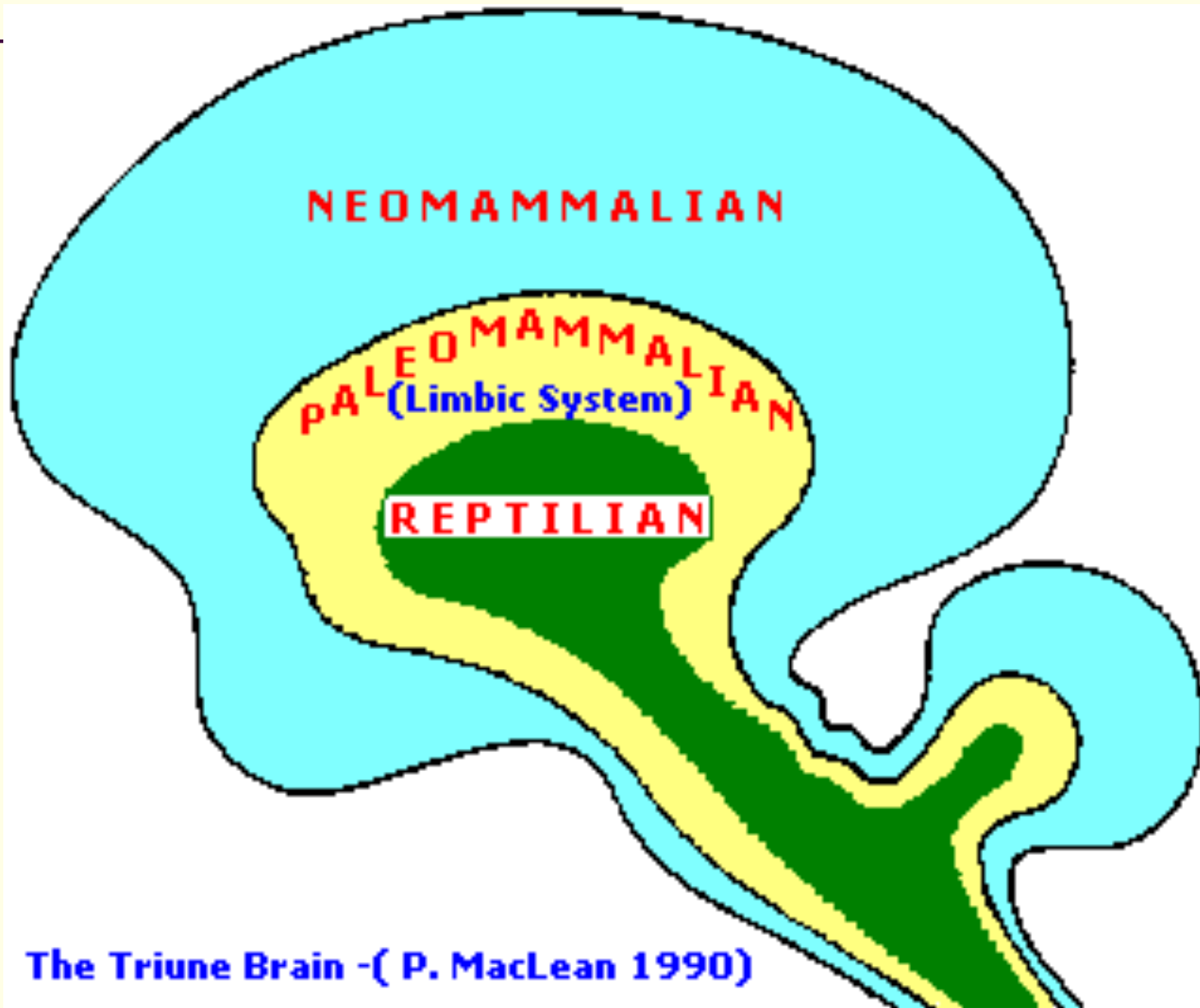
There is suffering.

When craving arises, so does suffering.

When craving passes away, so does suffering.

There is an eight-part path that both embodies and leads to the passing away of this craving.

Evolution of the Brain



Three Motivational and Self-Regulatory Systems

■ Avoid Harms:

- Predators, natural hazards, aggression, pain
- Primary need, tends to trump all others

■ Approach Rewards:

- Food, shelter, mating, pleasure
- Mammals: rich emotions and sustained pursuit

■ Attach to Others:

- Bonding, language, empathy, cooperation, love
- Taps older Avoiding and Approaching networks

Each system can draw on the other two for its ends.⁴³

Craving Arising . . .

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 its allostatic, **Reactive**, *craving* mode.⁴⁴

Craving Passing Away . . .

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

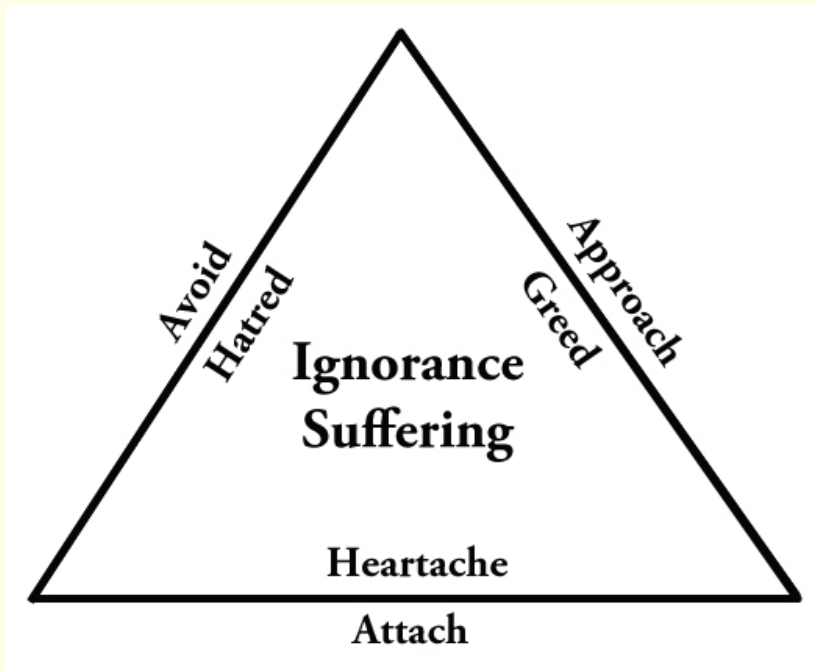
The body defaults to a sustainable equilibrium of refueling, repairing, and pleasant abiding.

The mind defaults to a sustainable equilibrium of:

- **Peace** (the Avoiding system)
- **Contentment** (the Approaching system)
- **Love** (the Attaching system)

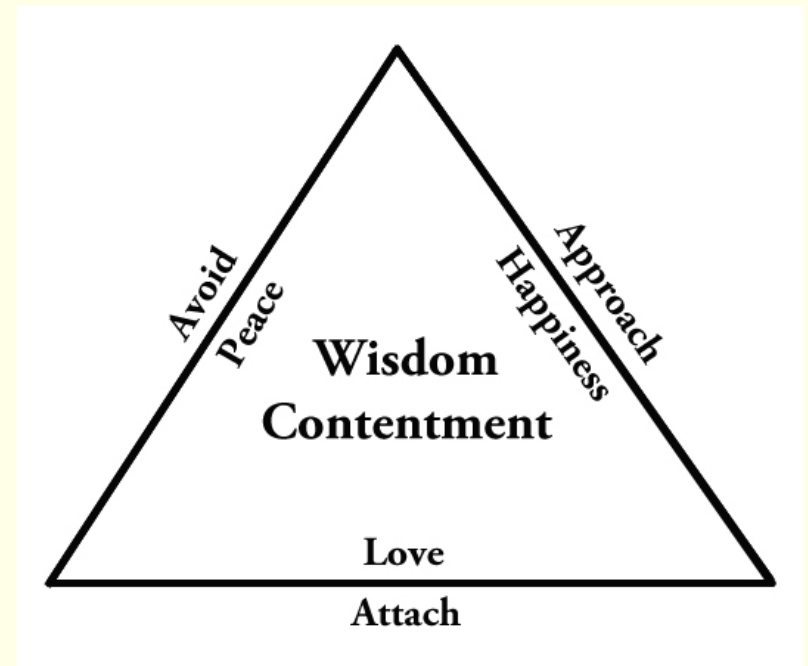
This is the brain in its homeostatic ***Responsive,***
minimal craving mode.

Choices . . .



Reactive Mode

Or?



Responsive Mode₆

A composite image showing Stone Age people in a modern city park. In the background, there are tall, modern apartment buildings. In the foreground, three Stone Age people are crouching in a grassy field. The central figure is a man with long, dark hair and a beard, wearing a simple, dark, animal-skin garment. He is looking directly at the camera. To his left, another man is crouching, and to his right, a woman is crouching, both also wearing simple, animal-skin garments. The scene is set in a lush, green park with many trees and bushes. The overall image is a juxtaposition of ancient and modern environments.

Stone age brains in the 21st century

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.

Pet the Lizard



Feed the Mouse



Hug the Monkey





Peace

Contentment

Love

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 pleased, 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



Stop Throwing Darts

The First and Second Dart


- The Buddha called unavoidable discomfort the “first dart.”
- Then we add our reactions to it, e.g., fear of pain, anger at hurt.
- Sometimes we react with suffering when there is no first dart at all, simply a condition there’s 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.

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.

Practicing with Wanting

- Help *chandha* replace *tanha*; flowers crowd out weeds.
- Surround pleasant or unpleasant feeling 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 explore what it is like not to do it for a second, a minute, or longer.



I make myself rich by making my wants few.

Henry David Thoreau

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

*In the deepest forms of insight,
we see that things change so quickly
that we can't hold onto anything,
and eventually the mind lets go of clinging.*

*Letting go brings equanimity.
The greater the letting go, the deeper the equanimity.
In Buddhist practice, we work to expand
the range of life experiences in which we are free.*

U Pandita



The Avoiding System

Cooling the Fires

- Regard stressful activation as an affliction.
- To stimulate PNS to calm SNS:
 - Big exhalation
 - Relaxing the body
 - Yawning
 - Fiddling the lips
 - Train in tranquility
- Regard bodily activation as another compounded, “meaningless,” and impermanent phenomenon; don’t react to it.

Not Harming

- Basis of morality in Buddhism and other traditions
- Applies to oneself as well as to others
- Precepts; Right Speech, Action, Livelihood
- The emphasis on abandoning ill will
- The distinction between moral action in the world and succumbing to anger and ill will
- The reframing of not-doing in active, doing terms

Feeling Alright Right Now

- Tuning into bodily signals that you're OK
- Recognizing protections
- Not afraid of paper tigers
- Feeling strong




The Approaching System

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.

Good Facts for Gladness and Gratitude

- The small pleasures of ordinary life
- The satisfaction of attaining goals or recognizing accomplishments - especially small, everyday ones
- Feeling grateful, contented, and fulfilled
- Recognizing your positive character traits
- Spiritual or existential realizations



The Attaching System



© Kalyan Varma

Feeling Cared About

- As we evolved, we increasingly turned to and relied on others to feel safer and less threatened.
 - Exile from the band was a death sentence in the Serengeti.
 - Attachment: relying on the secure base
 - The well-documented power of social support to buffer stress and aid recovery from painful experiences
- Methods:
 - Recognize it's kind to others to feel cared about yourself.
 - Look for occasions to feel cared about and take them in.
 - Deliberately bring to mind the experience of being cared about in challenging situations.

Understanding Inter-Being

- Nothing arises on its own; everything is connected to everything else.
- The world emerges from stardust.
- The body emerges from the world (sunlight lifts the cup) and from nature, joined with all life.
- The mind emerges in the body, culture, and family.

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.

A Serenity Prayer

*May I find the serenity to accept the things that cannot be changed,
the courage to change the things which should be changed,
and the wisdom to distinguish the one from the other.*

*Living one day at a time,
Enjoying one moment at a time,
Accepting hardship as a pathway to peace,
Taking this imperfect world as it is,
Not as I would have it,
Trusting in my refuges,
May I be reasonably happy in this life,
And supremely happy forever some day.*



Eddies in the Stream

*Blissful is passionlessness in the world,
The overcoming of sensual desires;
But the abolition of the conceit I am --
That is truly the supreme bliss.*

The Buddha, Udāna 2.11

To study the Way is to study the self.

To study the self is to forget the self.

*To forget the self is
To be enlightened by all things.*

Dogen

*For one who clings motion exists, but for one who does not
cling there is no motion.*

Where no motion is, there is stillness.

Where stillness is, there is no craving.

Where no craving is, there is neither coming nor going.

*Where no coming or going is there is neither arising nor
passing away.*

*Where neither arising nor passing away is, there is neither
this world, nor a world beyond nor a state between.*

This verily, is the end of suffering.

“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 Fruit as the Path

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.

“Taking the Fruit as the Path”

Peace

Happiness

Love

*Whose mind is like rock, steady, unmoved,
dispassionate for things that spark passion,
unangered by things that spark anger:*

*When one's mind is developed like this,
from where can there come suffering & stress?*

The Buddha, Udāna 4.34

Suggested Books

See www.RickHanson.net for other great books.

- Austin, J. 2009. *Selfless Insight: Zen and the Meditative Transformations of Consciousness*. MIT Press.
- Begley, S. 2007. *Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves*. Ballantine.
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Key Papers - 1

See www.RickHanson.net for other scientific papers.

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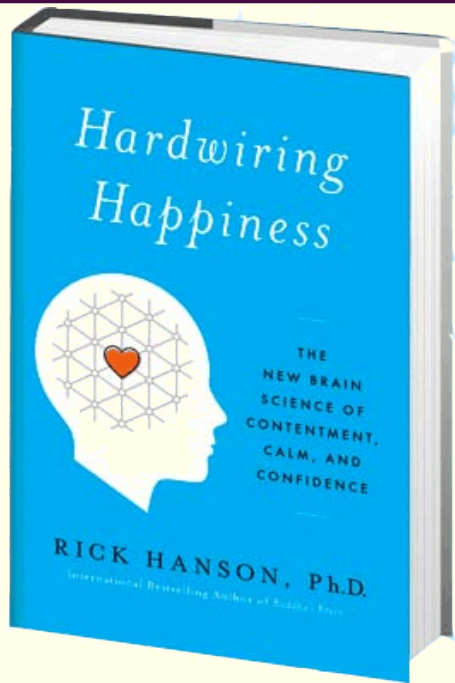
Key Papers - 3

- Lazar, S., Kerr, C., Wasserman, R., Gray, J., Greve, D., Treadway, M., McGarvey, M., Quinn, B., Dusek, J., Benson, H., Rauch, S., Moore, C., & Fischl, B. 2005. Meditation experience is associated with increased cortical thickness. *Neuroreport*. 16:1893-1897.
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- Lieberman, M.D. & Eisenberger, N.I. 2009. Pains and pleasures of social life. *Science*. 323:890-891.
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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



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