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
May 29, 2010

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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.
Equanimity is a perfect, unshakeable balance of mind.

Nyanaponika Thera

With equanimity, you can deal with situations with calm and reason while keeping your inner happiness.

The Dalai Lama
Topics

- Equanimity in Buddhist Thought and Practice
- Self-Directed Neuroplasticity
- General Methods
- The Enlightened Brain and Related Methods
- Eddies in the Stream
Common - and Fertile - Ground

Neuroscience

Psychology

Buddhism
We ask, “What is a thought?”

We don’t know,

yet we are thinking continually.

Venerable Tenzin Palmo
Domain of Intervention

- We can intervene in three domains:
  - World (including relationships)
  - Body
  - Mind

- All three are important. And they work together.

- We have limited influence over world and body.

- In the mind:
  - Much more influence
  - Changes are with us wherever we go
“Know the Mind, Shape the Mind, Free the Mind”

- **Mindfulness**, **virtue**, and **wisdom** are identified in Buddhism, other contemplative traditions, and Western psychology as central pillars of practice.

- These map to central functions of the nervous system: receiving/learning, regulating, and prioritizing. And map to the three phases of psychological healing and personal growth:
  - Be mindful of, release, replace.
  - Let be, let go, let in.

- Mindfulness is vital, but not enough by itself.
How does equanimity fit into Buddhist perspectives and practices?
Equanimity from Insight

- Three marks of existence:
  - Impermanence
  - Interdependent arising
  - Suffering

- The Four Noble Truths

- The chain of suffering:
  - Contact - Feeling - Craving - Clinging - Suffering
  - First and second dart
  - Eight worldly winds
  - The imperfectible nature of life: disenchantment
When the uninstructed worldling experiences a painful feeling, he or she sorrows, grieves, and laments; he or she weeps beating the breast and becomes distraught. He or she feels two feelings - a bodily one and a mental one.

Suppose they were to strike a person with a dart, and then strike him immediately afterward with a second dart, so that the person would feel a feeling caused by two darts.

So too, when the uninstructed worldling experiences a painful feeling, the person feels two feelings - a bodily one and a mental one.

The Buddha, SN 36:6
Eight Worldly Winds

- Pleasure and pain
- Praise and blame
- Gain and loss
- Fame and ill repute
Equanimity in Buddhist Practice

- Brahmavihara
- Paramitta
- 3rd and 4th Jhana
- Enlightenment factor
Concentration

And what, friends, is right concentration? Here, quite secluded from sensual pleasures, secluded from unwholesome states, a person enters upon and abides in the first jhana, which is accompanied by applied and sustained thought, with rapture and pleasure born of seclusion.

With the stilling of applied and sustained thought, the person enters upon and abides in the second jhana, which has self-confidence and singleness of mind without applied and sustained thought, with rapture and pleasure born of concentration.

With the fading away as well of rapture, the person abides in equanimity, and mindful and fully aware, still feeling pleasure with the body, enters upon and abides in the third jhana, on account of which noble ones announce: “He or she has a pleasant abiding who has equanimity and is mindful.”

With the abandoning of pleasure and pain, and with the previous disappearance of joy and grief, he or she enters upon and abides in the fourth jhana, which has neither-pain-nor-pleasure and purity of mindfulness due to equanimity. This is called right concentration.

The Buddha
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, not resisting it or chasing it
- Gently settling into peaceful well-being
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
Equanimity Sampler

- Self-compassion and self-goodwill
- Intention
- Relaxation
- Safety
- Well-being
- Panoramic view
- Taking in benefits
- Steadiness of mind
- Whole body experiencing
- Noticing feeling tone, and relaxing reactions
- Finding contentment in simply being, relaxing “greed”
- Feeling connected, relaxing “heartache”
- Feeling peaceful, relaxing “hatred”
- Surrendering to impermanence
Why does the brain matter, on the path of awakening?
The Mind/Brain System

- "Mind" = flow of information within the nervous system
  - Information is represented by the nervous system.
  - Most mind is unconscious; awareness is part of mind.
  - The headquarters of the nervous system is the brain.

- In essence then, apart from hypothetical transcendental factors, your mind is what your brain does.

- Brain = necessary, proximally sufficient condition for mind.
  - The brain depends on the nervous system, which intertwines with and depends on other bodily systems.
  - These systems in turn intertwine with and depend upon nature and culture, both presently and over time.
  - And as we’ll see, the brain also depends on the mind.
Your Amazing Brain

- **Size:**
  - 3 pounds of tofu-like tissue
  - 1.1 trillion brain cells
  - 100 billion “gray matter" neurons

- **Activity:**
  - Always on 24/7/365 - Instant access to information on demand
  - 20-25% of blood flow, oxygen, and glucose

- **Speed:**
  - Neurons firing around 5 to 50 times a second (or faster)
  - Signals crossing your brain in a tenth or hundredth of a second

- **Connectivity:**
  - Typical neuron makes ~5000 connections with other neurons:
    - ~ 500 trillion synapses
  - During one breath, a quadrillion-plus signals coursed through your head.

- **Complexity:**
  - Potentially 10 to the millionth power brain states
A Neuron
Your Amazing Brain

- **Size:**
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Fact #1

As your brain changes, your mind changes.
Fact #2

As your mind changes, your brain changes.

Immaterial mental activity maps to material neural activity.

This produces temporary changes in your brain and lasting ones.

Temporary changes include:
- Alterations in brainwaves (= changes in the firing patterns of synchronized neurons)
- Increased or decreased use of oxygen and glucose
- Ebbs and flows of neurochemicals
Tibetan Monk, Boundless Compassion
Rewards of Love
Christian Nuns, Recalling Profound Spiritual Experiences
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).

Mental Activity Shapes Neural Structure

- The flows of mind sculpt the brain.

- Immaterial information leaves material traces behind:
  - Increased blood/nutrient flow to active regions
  - Altered epigenetics (gene expression)
  - “Neurons that fire together wire together.”
    - Increasing excitability of active neurons
    - Strengthening existing synapses
    - Building new synapses; thickening cortex
    - Neuronal “pruning” - “use it or lose it”
The principal activities of brains are making changes in themselves.

Marvin L. Minsky
Fact #3

You can use your mind to change your brain to change your mind for the better.

This is self-directed neuroplasticity.
Perspectives on Neuroplasticity

- Neuroplasticity is not breaking news: For a century or more, it’s been presumed that mental activity changed neural structure: what else is learning? (The news is in the details of how.)

- Most neuroplasticity is incremental; occasionally it’s dramatic.

- Awareness increases neural structure-building. Residues of conscious experience continually sift into implicit memory.

- Your experience matters. Both for how it feels now and for the lasting threads it weaves into the fabric of your brain and being.

- Most experience is background, in the “simulator.” Thus the importance of mindfulness.
The Power of Mindfulness

- Attention is like a spotlight, illuminating what it rests upon.

- Because neuroplasticity is heightened for what’s in the field of focused awareness, attention is also like a vacuum cleaner, sucking its contents into the brain.

- Directing attention skillfully through mindfulness is therefore a fundamental way to shape the brain - and one’s life over time.

*The education of attention would be an education par excellence.*

William James
Know the mind.

Shape the mind.

Free the mind.
Equanimity in the Brain

- Understanding and Intention - Conceptual in prefrontal cortex; embodied in prefrontal cortex (action tendencies), parietal cortex (perspective), limbic system (emotion), and brainstem (arousal)

- Steadiness of mind - Sustained by oversight from the anterior cingulate cortex (ACC); over time, probably becomes a whole-brain stability of attention

- Global coherence - So as not to be caught by anything, experience presents itself as a coherent whole, probably enabled by large-scale gamma wave synchronization.

- Calm and contentment - Much parasympathetic activation, inhibiting fight-flight stress reactions; underlying well-being in the core motivational systems (Avoid, Approach, Attach)
General Methods for Equanimity

- Restraint
- Self-compassion
- Self-goodwill
- Steadiness of mind
- Tranquility
- Relaxing selfing
- Spacious awareness
Restraint

- *Sila*
  - The “bliss of blamelessness”
  - The Five Precepts

- Pausing

- The Buddha’s advice to Rahula

- Restraint promotes wisdom
The Buddha’s Advice to His Son

Rahula, when you wish to do an action of body, speech, or thought, you should reflect thus:

Would this action lead to my own affliction, or to the affliction of others, or the affliction of both? Is it an unwholesome action with painful results?

If you know that this action would lead to affliction, that it is an unwholesome action with painful results, then you definitely should not do such an action.

But when you reflect, if you know that this action would not lead to affliction, that it is a wholesome action with pleasant results, then you may do such an action.

Rahula, while you are doing an action, you should reflect [in the same way] and [make the same choice].

Also, Rahula, after you have done an action, you should reflect [in the same way]. If you know [the action led to affliction, was unwholesome, had painful results], you should confess such an action, reveal it, and lay it open to a teacher or to your wise companions in the holy life, [and] you should undertake restraint in the future.

But when you reflect, if you know that this action did not lead to affliction, that it was a wholesome action with pleasant results, you can abide happy and glad, training day and night in wholesome states.

Therefore, Rahula, you should train thus: “We will purify our bodily actions, our verbal actions, and our mental actions by repeatedly reflecting upon them.”

Adapted from Majjhima Nikaya 61, (Bhikkhu Bodhi translator)
Wisdom is . . . all about understanding the underlying spacious and empty quality of the person and of all experienced phenomena.

To attain this quality of deep insight, we must have a mind that is quiet and malleable.

Achieving such a state of mind requires that we first develop the ability to regulate our body and speech so as to cause no conflict.

Venerable Ani Tenzin Palmo
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.”
The root of Buddhism is compassion, and the root of compassion is compassion for oneself.

Pema Chodren
Self-Goodwill

- All the great teachers have told us to be compassionate and kind toward all beings. And that whatever we do to the world affects us, and whatever we do to ourselves affects the world.

- You are one of the “all beings!” And kindness to yourself benefits the world, while hurting yourself harms the world.

- It’s a general moral principle that the more power you have over someone, the greater your duty is to use that power wisely. Well, who is the one person in the world you have the greatest power over? It’s your future self. You hold that life in your hands, and what it will be depends on how you care for it.

- Consider yourself as an innocent child, as deserving of care and happiness as any other.
“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
Steadiness of Mind

- Daily meditation
- Concentration practices
- Attention to the neutral
Evolutionary History

The Triune Brain

The Triune Brain - (P. MacLean 1990)
Circuits of Reactive Responses
Cooling the Fires

- Regard stressful activation as an affliction.

- Lots of methods for stimulating the parasympathetic nervous system to down-regulate the SNS:
  - Big exhalation
  - Relaxing the body
  - Yawning
  - Fiddling the lips

- Get in the habit of rapidly activating a damping cascade when the body activates.

- Regard bodily activation as just another compounded, “meaningless,” and impermanent phenomenon; don’t react to it.
Relaxing Selfing

- Upsets arise within the perspective of “I.”

- What is the sense of “I” that is running at the time? Strong? Weak? Mistreated?

- Are you taking things personally?

- What happens when you relax selfing?

*The worst things in my life never actually happened to me.*

Oscar Wilde
Brain activations of “selfing” - Gillihan, et al., *Psychological Bulletin*, 1/2005
Relaxing Selfing

- Upsets arise within the perspective of “I.”

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- Are you taking things personally?

- What happens when you relax selfing?

*The worst things in my life never actually happened to me.*

Oscar Wilde
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
Spacious Awareness

- Open space of awareness

- Experiences come and go like clouds moving across the sky.

- Feeling tones are just more clouds.

- No cloud ever harms or taints the sky.

*Trust in awareness, in being awake, rather than in transient and unstable conditions.*

Ajahn Sumedho
## Dual Modes

<table>
<thead>
<tr>
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<th>“Being”</th>
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</tr>
<tr>
<td>Abstract</td>
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<tr>
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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)

“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.
Ways to Activate the Two Modes

Ways to shift into **medial** mode:
- Verbal thought
- Task focus
- Sense of threat or opportunity
- Mini-movies in the mental simulator

Ways to shift into **lateral** mode:
- Sensory awareness
- Sense of the body as a whole
- “Don’t-know mind”
- Panoramic view
- Open space awareness
- Boundless compassion
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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.

Adapted from the Serenity Prayer, by Reinhold Niebuhr (1892-1971)
The Enlightened Brain
Reverse Engineering the Brain

*What is the nature of the brain when a person is:*

- In peak states of productivity?
- Self-actualizing?
- Experiencing inner peace?
- Enlightened (or close to it)?
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
- ~ 80 million years of mammals
- ~ 60 million years of primates
- ~ 6 million years ago: last common ancestor with chimpanzees, our closest relative among the “great apes” (gorillas, orangutans, chimpanzees, bonobos, humans)
- 2.5 million years of tool-making (starting with brains 1/3 our size)
- ~ 150,000 years of homo sapiens
- ~ 50,000 years of modern humans
- ~ 5000 years of blue eyes
Three Motivational Systems

- **Avoid** “sticks,” threats, penalties, pain
- **Approach** “carrots,” opportunities, rewards, pleasure
- **Attach** to “us,” for proximity, bonds, feeling close

Reptiles and fish avoid and approach. Mammals and birds also *affiliate* - especially primates and humans. Affiliating is a breakthrough, co-evolving with emotion.

Although the three branches of the vagus nerve loosely map to the three systems, the essence of each is its aim, not its neuropsychology. Each system can draw on another system for its ends.
Home Base of the Human Brain

When not threatened, ill, in pain, hungry, upset, or chemically disturbed, most people settle into being:

- **Calm** (the Avoid system)
- **Contented** (the Approach system)
- **Caring** (the Attach system)
- **Creative** - synergy of all three systems

This is the brain in its natural, *responsive* mode.
The Responsive Mode
To Survive, We Leave Home . . .

- **Avoid**: When we feel threatened or harmed
- **Approach**: When we can’t attain important goals
- **Attach**: When we feel isolated, disconnected, unseen, unappreciated, unloved

This is the brain in its *reactive* mode of functioning - a kind of inner homelessness.
The Reactive Mode

![Diagram showing the reactive mode as a triangle with sides labeled: Approach, "Greed", Ignorance, Suffering; "Avoid", "Hatred", Heartache; Affiliate. The triangle is divided into three sections, each marked with a different emotional response.]
Reactive Dysfunctions in Each System

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

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

- **Affiliate** - Borderline, narcissistic, antisocial PD; symbiosis; *folie a deux*; “looking for love in all the wrong places”
Two Modes of Activating the Three Systems

- **Reactive**: Ignorance, disturbance, suffering, harm, high “selfing”

- **Responsive**: Wisdom, equanimity, happiness, benefit, low “selfing”

It’s typical to shift between modes - though:
- Sometimes both modes intertwine within a single action, interaction, or experience.
- Some people stabilize in one mode.

Internal and external factors determine which mode is active and how it’s expressed.
Choices . . .

Or?
How to come home?

How to recover the natural, responsive mode of the brain?
“Taking the Fruit as the Path”

Gladness

Love

Peace
The Approach system
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

- Being included, valued, liked, respected, loved by others
- The good feelings that come from being kind, fair, generous
- Feeling loving

- Things are alright; nothing is wrong; there is no threat
- Feeling safe and strong
- The peace and relief of forgiveness

- Recognizing your positive character traits
- Spiritual or existential realizations
How to Take in the Good

1. Look for positive facts, and let them become positive experiences.

2. Savor the positive experience:
   - Sustain it for 10-20-30 seconds.
   - Feel it in your body and emotions.
   - Intensify it.

3. Sense and intend that the positive experience is soaking into your brain and body - registering deeply in emotional memory.
Benefits of Positive Emotions

- The benefits of positive emotions are a proxy for many of the benefits of Taking in the Good.

- Emotions organize the brain as a whole, so positive ones have far-reaching benefits

- These include:
  - Stronger immune system; less stress-reactive cardiovascular
  - Lift mood; increase optimism, resilience
  - Counteract trauma
  - Promote exploratory, “approach” behaviors
  - Create positive cycles
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
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.
Renunciation

- The middle way between asceticism and hedonism

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

- In the brain: feeling tone --> enjoying --> wanting --> pursuing
  - Wanting without enjoying is a hell.
  - Enjoying without wanting is a middle way.

- But beware: the brain usually wants (craves) and pursues (clings) to what it likes. Consider the frequent, blunt admonitions in the dharma against indulging in sensual pleasure.
It occurred to me: that whatever pleasure and joy there is in the world, this is the gratification in the world; that the world is impermanent, bound up with suffering, and subject to change, and this is the danger in the world; and that the removal and abandonment of desire and lust for the world is the escape from the world . . .

So long as I did not directly know, as they really are, the gratification in the world as gratification, its danger as danger, and the escape from the world as escape, for so long I did not claim to have awakened to the unsurpassed perfect enlightenment.

The Buddha, Anguttara Nikaya, 3:101

With sensual pleasures as the cause, people indulge in misconduct of body, speech, and mind: a danger in the case of sensual pleasures, a mass of suffering visible in this present life . . . And what is the escape? It is the removal of desire and lust, the abandonment of desire and lust for sensual pleasures.

The Buddha, Majjhima Nikaya, 13
I make myself rich by making my wants few.

Henry David Thoreau
The Great Way is easy.

For one with no preferences.

Third Zen Patriarch
The Attach system
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.
Feeling Connected

- Yearnings to feel connected are normal and vital.

- Our ancestors passed on their genes by learning to choose good mates, bond with their young, draw males in to provide for children, create “the village it takes to raise a child” whose brain is quadrupling in size after birth and thus needs a long and vulnerable childhood, and team up with each other to compete with other bands for scarce resources. Mammals, etc. that did not care about feeling connected did not pass on their genes.

- Feeling connected buffers against stress, increases positive emotions, promotes resilience, and increases caring for others. It can also gradually fill any holes in your heart left over from a childhood (or last job, or last marriage) in which you didn’t feel very connected with others who cared about you.
Ananda approached the Buddha and said, “Venerable sir, this is half of the spiritual life: good friendship, good companionship, good comradeship.”

“Not so, Ananda! Not so Ananda!” the Buddha replied. “This is the entire spiritual life. When you have a good friend, a good companion, a good comrade, it is to be expected that you will develop and cultivate the Noble Eightfold Path.”

[adapted from In the Buddha’s Words, Bhikkhu Bodhi]
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.
Benefits of Unilateral Virtue

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

- It feels good in its own right.

- It minimizes inflammatory triggers, evokes good treatment, empowers you to ask for it.

- It stands you on the moral high ground.

*Remaining virtuous in the face of provocation is a profound expression of non-harming and benevolence toward all beings.*

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The Avoid system
The Negativity Bias

- In our evolutionary history, threats usually had more impact on survival than opportunities. **Sticks are more salient than carrots:**
  - The amygdala is primed to label experiences negatively.
  - The amygdala-hippocampus system flags negative experiences prominently in memory.
  - *The brain is thus like Velcro for negative experiences but Teflon for positive ones.*

- Consequently, the Avoid system routinely hijacks the Approach and Attach systems, and “bad is stronger than good”:
  - It takes five positive interactions to undo a negative one.
  - People will do more to avoid a loss than get a gain.
  - It’s easy to create learned helplessness, but hard to undo.
Major Result of the Negativity Bias: Threat Reactivity

- Two mistakes:
  - Thinking there is a tiger in the bushes when there isn’t one.
  - Thinking there is no tiger in the bushes when there is one.

- We evolved to make the first mistake a hundred times to avoid making the second mistake even once.

- This evolutionary tendency is intensified by temperament, personal history, culture, and politics.

- Threat reactivity affects individuals, couples, families, organizations, nations, and the world as a whole.
Results of Threat Reactivity (Personal, Organizational, National)

- Our initial appraisals are mistaken:
  - Overestimating threats
  - Underestimating opportunities
  - Underestimating inner and outer resources

- We update these appraisals with information that confirms them; we ignore, devalue, or alter information that doesn’t.

- Thus we end up with views of ourselves, others, and the world that are ignorant, selective, and distorted.
Costs of Threat Reactivity
(Personal, Organizational, National)

- Feeling threatened feels bad, and triggers stress consequences.
- We over-invest in threat protection.
- The boy who cried tiger: flooding with paper tigers makes it harder to see the real ones.
- Acting while feeling threatened leads to over-reactions, makes others feel threatened, and creates vicious cycles.
- The Approach system is inhibited, so we don’t pursue opportunities, play small, or give up too soon.
- In the Attach system, we bond tighter to “us,” with more fear and anger toward “them.”
Besides its impacts at the personal and organizational level, threat reactivity is a major source of prejudice, oppression, and war.

Reducing threat reactivity is a key way to make this world a better place.
Not Harming

- The fundamental tenet of morality in Buddhism and other traditions
- Applies to oneself as well as 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 as Safe as You Reasonably Can

- Connecting with others; finding allies; internalizing self-encouraging, -nurturing, -soothing, -coaching resources

- Feeling strong

- Waking up from Threat Level Orange:
  - Recognizing real threats
  - Not getting alarmed at paper tigers
  - Seeing opportunities clearly
  - Recognizing all your inner and outer resources for dealing with threats and fulfilling opportunities
The Responsive Mode
Some Ways to Take the Fruit as the Path


Approach system
- Be glad.
- Appreciate your resources.
- Give over to your best purposes.

Avoid system
- Cool the fires.
- Recognize paper tigers.
- Tolerate risking the dreaded experience.

Affiliate system
- Sense the suffering in others.
- Be kind.
- Act with unilateral virtue.
Eddies in the stream
Common Nature of Matter and Mind

- Patterns - eddies - form from matter (including energy, quantum weirdness, etc.): whirlpools, butterflies, and galaxies. Patterns of information (mind) form via assemblies of material synapses.

- These patterns exist only within Now - which is infinitely “thin” yet holds all the causes of the past conditioning the future.

- All patterns are transient, interdependent, and emergent.

- At the leading edge of Now, they are effectively unconditioned.
The Nature of Awakened Being?

- Awakened beings (and those far along the path) seem to:
  - abide as the nature of things at the leading edge of Now,
  - embedded in and embodying the ongoing knowing of transience that continually undoes craving and clinging,
  - with a freedom that comes from both that undoing and some sense of the unconditioned.

- This abiding, knowing, undoing, and freedom could be the natural fruit of Nibbana manifesting in the brain - at least in terms of the progression into Nibbana and the return from it.
Nibbana and the Brain

- In a recurring description in the dharma, one moves through the eight absorptions (Jhanas) to the point of “cessation.”

- Then - mysteriously - Nibbana “occurs.” After a while, more ordinary consciousness returns, through which the effects of Nibbana continue to ripple, for a lifetime.

- In the brain, these eight steps seem to correspond to a profound quieting of mind and brain: all eddies of information (and their underlying neural assemblies) disperse in awareness so that there is only fertile noise.

- At that point, the person is utterly present with the bare nature of matter and mind - the realization of which is transforming.
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.

The Buddha, Udana 8:3
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
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
Penetrative insight

joined with calm abiding

utterly eradicates

afflicted states.

Shantideva
Great 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.
Key Papers - 3


Key Papers - 4


