

# Equanimity:

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## *In the Dharma and in Your Brain*

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# Plan for the Day

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- Context
- Equanimity in Buddhist Thought and Practice
- Meditative Foundations
- The Brain: Sometimes Peaceful, Sometimes Not
- Mindfulness of Feeling
- Lunch
- When the Brain Gets Upset . . .
- . . . And What You Can Do about It
- Meditation on the Parasympathetic Nervous System
- Wise View and Equanimity
- Depths of Equanimity

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*Indeed, the sage who's fully quenched*

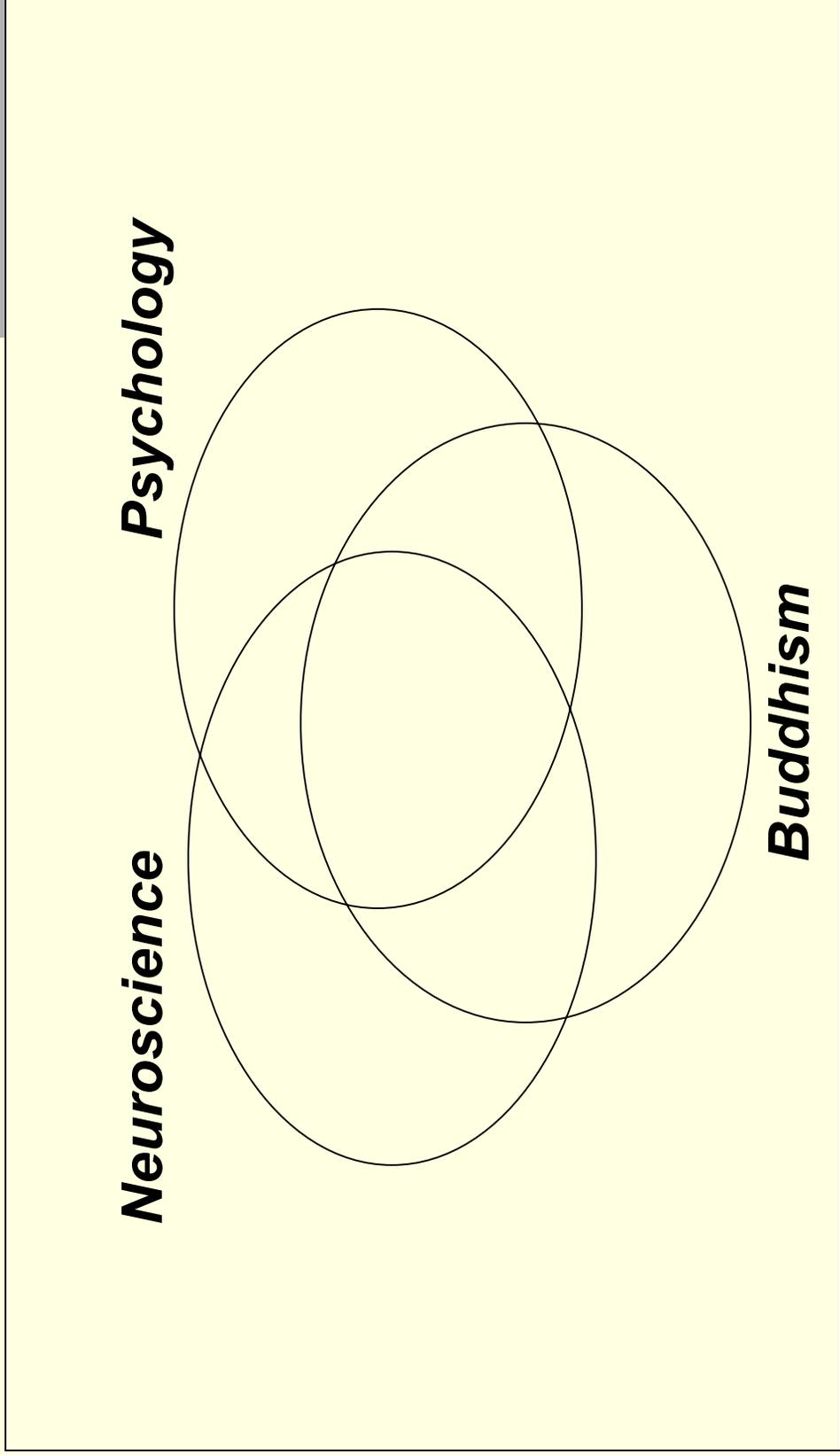
*Rests at ease in every way;*

*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

# Common - and Fertile - Ground



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*When the uninstructed worldling experiences a painful feeling, she sorrows, grieves, and laments; she weeps beating her breast and becomes distraught. She feels two feelings - a bodily one and a mental one.*

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

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

The Buddha, SN36:6

# Basics of Meditation

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- 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

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*Know the mind.*

*Shape the mind.*

*Free the mind.*

# Foundations of Meditation

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- Setting an intention - “top-down” frontal lobes, “bottom-up” limbic system
- Relaxing the body - parasympathetic nervous system (PNS)
- Feeling safer - inhibits amygdala/hippocampus vigilance circuits
- Evoking positive emotion - dopamine, norepinephrine
- Absorbing the benefits - primes memory circuits throughout the brain

# “Ardent, Diligent, Resolute, and Mindful”



# The Union of Mind and Body

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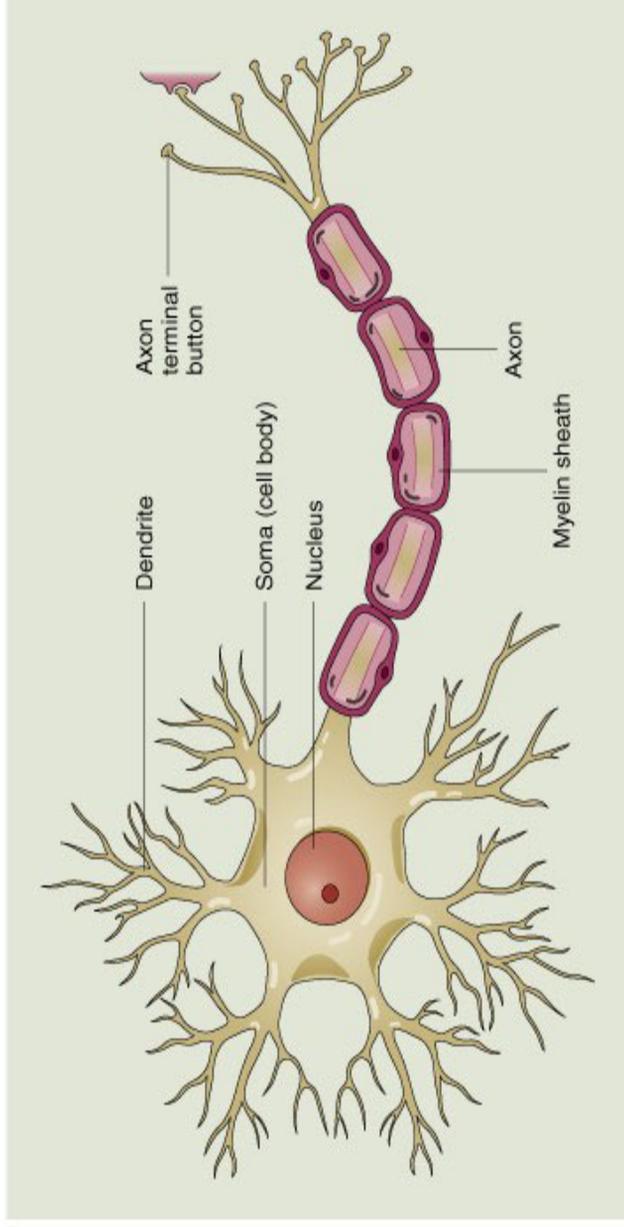
- Subjective experience correlates with brain activities.
- Change your experience - and you change your brain, temporarily and then permanently.
- Change your brain - and you change your experience.

# Meditation - Long-term Physical Effects

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- Dampens reactivity to stress
  - Dampens amygdala responses
  - Sensitizes and strengthens parasympathetic system
- Thickens brain regions (= makes them stronger):
  - Anterior cingulate (controlling attention, integrating thinking/feeling)
  - Insula (interoceptive awareness, empathy)
  - Less cortical thinning with aging
- Increases left frontal activation: more positive emotions
- Primes brain to enter states of very fast pulses of coherent neural activity integrating broad regions
- Increases serotonin (supporting mood, sleep, digestion)

# One Simple Neuron . . .

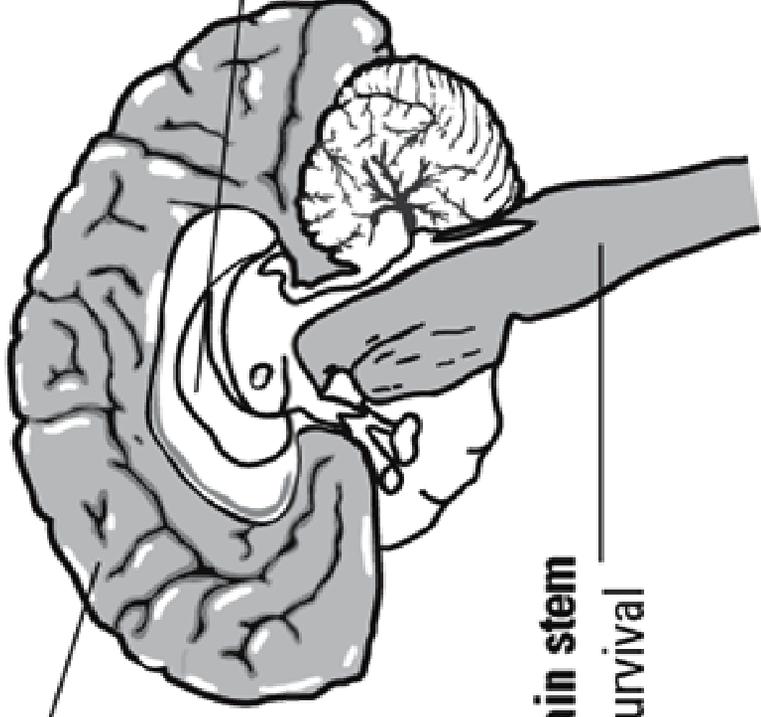


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# Circuits of Reactive Responses

**Neocortex**

Higher-order thinking

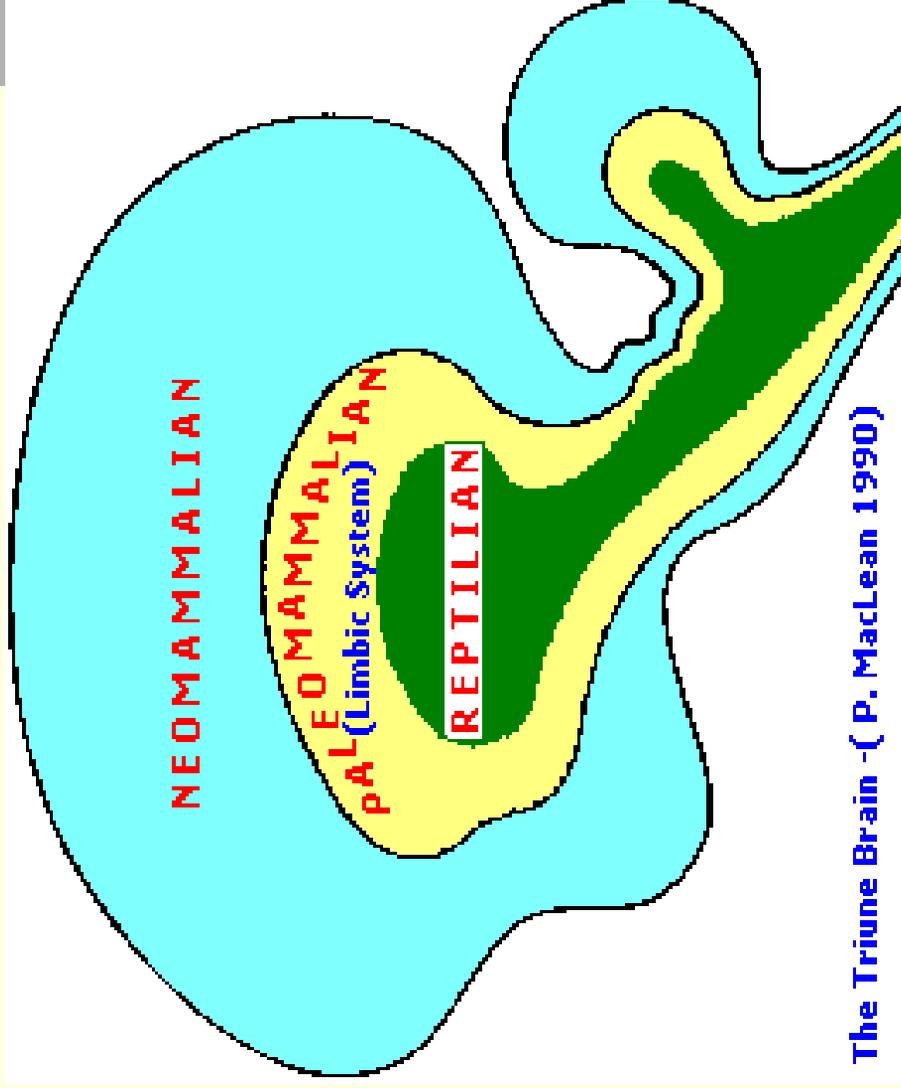


**Limbic brain**  
Emotions

**Brain stem**

Survival

# Evolutionary History



The Triune Brain - (P. MacLean 1990)

## The Triune Brain

# The Anatomy of Reactivity

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- Incoming stimuli processed by limbic system
  - Central switchboard
  - Primed to go negative: anxious combativeness
- Snap judgments [influenced by memory via hippocampus]:
  - Pleasant → Approach (mate with or eat)
  - Unpleasant → Avoid (flee from, fight with, freeze, or appease)
  - Neutral → Ignore, forget, move on
- Reacts before frontal lobes can process perception signals
  - “*Jump first, ask questions later!*”
- Can lead ancient, visceral reactions to hijack modern, reasoning mind (especially with history of trauma)

# Points of Intervention

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- In your environment:
  - Do whatever you can, that is wise, virtuous, etc.
  - But limited influence on your environment.
  - And only partial effects.
- In your inner world:
  - Much more influence
  - Changes are with you wherever you go
- Working internally with the frontal lobe/limbic circuits:
  - Train limbic to be less reactive
  - Increase top-down control
    - Foundation that prevents limbic reactivity
    - Increase alertness to emotional triggers
    - More powerful control over limbic system

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*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

# A Serenity Prayer

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*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.*

# Appraisals

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- What do we focus on, what do we pick out of the larger mosaic?
  - What meaning do we give the event? How do we frame it?
  - How significant do we make it? (Is it a 2 on the Ugh scale . . . Or a 10?)
  - What intentions do we attribute to others?
  - What are the embedded beliefs about other people? The world? The past? The future?
  - In sum, what views are we attached to?
- > Mainly frontal lobe and language circuits of left temporal lobe

# Self-Referencing

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- 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?
  - How does the sense of self change over the course of the upset (often intensifying)?
- > Circuits of “self” are distributed throughout the brain.

# Vulnerabilities

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- We all have vulnerabilities, which challenges penetrate through and/or get amplified by (moderated by inner and outer resources).
  - Physiological: Pain, fatigue, hunger, lack of sleep, biochemical imbalances, illness
  - Temperamental: Anxious, rigid, angry, melancholic, spirited/ADHD
  - Psychological: Personality, culture, effects of gender, race, sexual orientation, etc.
- > Depending on its nature, a vulnerability can be embodied or represented in many ways

# Memory

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- Stimuli are interpreted in terms of episodic memories of similar experiences.
  - And in terms of implicit, emotional memories or other, unconscious associations. (Especially trauma)
  - These shade, distort, and amplify stimuli, packaging them with “spin” and sending them off to the rest of the brain.
- > Hippocampus, with other memory circuits

# Aversion

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- The feeling tone of “unpleasant” is in full swing at this point, though present in the previous “gears” of survival reactivity.
  - In primitive organisms - and thus the primitive circuits of our own brain - the unpleasant/ aversion circuit is more primary than the pleasant/approach circuit since aversion often calls for all the animal’s resources and approaching does not.
  - Aversion can also be a temperamental tendency.
  - The Buddha paid much attention to aversion - such as to ill will - in his teachings, because it is so fundamental, and such a source of suffering.
- > Involves the limbic system, especially the amygdala

# Bodily Activation

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- The body energizes to respond; getting upset activates the stress machinery just like getting chased by a lion.
- Sympathetic nervous system (fight-or-flight)
- Hypothalamus-pituitary-adrenal (HPA) axis
- All this triggers blood to the large muscles (hit or run), dilates pupils (see better in darkness), cascades cortisol and adrenaline, increases heart rate, etc.
- These systems activate quickly, but their effects fade away slowly.
- Much collateral damage in the body and mind from chronically “going to war”

# Negative Emotions

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- Emotions are a fantastic evolutionary achievement for promoting grandchildren.
- Both the prosocial bonding emotions of caring, compassion, love, sympathetic joy . . .
- And the fight-or-flight emotions of fear, anger, sorrow, shame
- Emotions organize, mobilize the whole brain.
- They also shade our perceptions and thoughts in self-reinforcing ways.

# Loss of Executive Control

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- The survival machine is designed to make you identify yourself with your body and your emotional reactions. That identification is highly motivating for keeping yourself alive!
- So, in an upset, there is typically a loss of “observing ego” detachment, and instead a kind of emotional hijacking - all facilitated by neural circuits in which amygdala-shaped information gets fast-tracked throughout the brain, ahead of slower frontal lobe interpretations.
- With maturation (sometimes into the mid-twenties) and with experience, the frontal (especially prefrontal) cortices can comment on and direct emotional reactions more effectively.

# The Great Simulation Machine

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- Perceptual experience is a simulation of reality - selective, integrated, blanks filled in
- The brain uses that built-in machinery to run its own simulations of what could be happening over there, or might happen in the future, or did happen in the past. Often in the background; also in dreams. Uses a portion of the same circuits that would activate if you actually had that experience.
- These help the animal learn from its experiences and ready itself for the future. (And build understanding of others: empathy echoes)
- But they also prime us for over-reactions, infused with implicit references to a “self.”
- These firing patterns - “riffs on my life” - create wiring patterns, inclining the mind for better or worse.

# 8 Gears in the Survival Machine

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- Appraisals
- Self-Referencing
- Vulnerabilities
- Memory
- Aversion
- Bodily Activation
- Negative Emotions
- Loss of Executive Control

--> Exacerbated by simulations . . .

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

Oscar Wilde

# Methods for Appraisals

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- Staying mindful of the whole
- Mindful of the meanings, the framings
- Challenge the significance
  - Is it really an 8 on the 10-point Ugh scale?
  - If it's really a 2, why is my anger an 8?
- Challenging the intentions we attribute to others; realizing we are usually a bit player in their drama
- What beliefs are implicit about others, world?
- Cognitive therapy methods for challenging inaccurate, negative beliefs

# Methods for Self-Referencing

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- Recognizing the suffering that comes from selfing
- Mindfulness of the sense of “I”
- What are the implicit representations of self: Strong? Weak? Mistreated?
- How much are we taking things personally? (“Negative grandiosity” . . . )
- How does getting upset intensify or shade self?
- Seeing the interconnectedness of things in the situation, including yourself
- Identifying legitimate rights and needs, and taking care of them

# Methods for Vulnerabilities

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- Frame of compassion for yourself and self-acceptance
- Honest self-appraisal of physiology/health, temperament, and psychology: Weak spots? Hot buttons?
- Protecting vulnerabilities in situations:
  - Eating before you talk about what upset you
  - Asking people to slow down if you tend to be rigid
  - Pushing through inhibitions in assertiveness due to culture, gender
- Shore up vulnerabilities over time:
  - Medical care, vitamins, 5-HTP, antidepressants
  - Build up greater control over your attention
  - Take in positive experiences that slowly fill the hole in your heart

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*The root of Buddhism is compassion,*

*and the root of compassion is compassion for oneself.*

Pema Chodren

# Methods for Vulnerabilities

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- Frame of compassion for yourself and self-acceptance
- Honest self-appraisal of physiology/health, temperament, and psychology: Weak spots? Hot buttons?
- Protecting vulnerabilities in situations:
  - Eating before you talk about it
  - Asking people to slow down if you tend to be rigid
  - Push through inhibitions in assertiveness due to being a woman
- Shore up vulnerabilities over time:
  - Medical care, vitamins, 5-HTP, antidepressants
  - Build up greater control over your attention
  - Take in positive experiences that slowly fill the hole in your heart

# Methods for Memory

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- Be aware of the “pre-amp” turbo-charging of memory and sensitization.
- Increase positive emotional memories by “taking in the good.”
- Shift emotional memories in positive directions over time by recalling old painful experiences while simultaneously bringing positive thoughts and feelings prominently to mind.
- Other methods for trauma (e.g., EMDR)

# Methods for Aversion

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- Understand the central place in the dharma of working with aversion; use that to motivate yourself to not act aversively.
- Second Foundation of Mindfulness (feeling)
- Focus on neutral feeling tones
- Dwell on the conditioned, compounded, and impermanent nature of the unpleasant
- Compassion for people who are aversive to you
- Other forms of releasing ill will

# Methods for Bodily Activation

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- Understanding the mechanical, animal nature of activation
- Regarding stressful activation as an affliction (health consequences of chronic stress)
- Lots of methods for stimulating the parasympathetic nervous system to down-regulate the SNS
- Getting in the habit of rapidly activating a damping cascade when the body activates
- Regarding bodily activation as just another compounded, “meaningless,” and impermanent phenomenon

# Methods for Negative Emotions

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- Mindfulness of how thoughts shape emotions . . . and emotions shape thoughts.
- Lots of practices for letting go of negative emotions (e.g., visualizing them leaving the body through valves in the tips of the fingers and the toes)
- Cultivation of rapture and joy – and the dopaminergic neurological benefits of those states, including for steadying the mind

# Methods for Executive Control

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- Slow down; buy yourself time.
- Cultivate steadiness of mind
- Describe your experiences in words (noting)
- Actively enlist internal resources, e.g., sense of others who love you, recollection of what happened the last time you lost your temper
- Enlist external resources, e.g., call a friend, therapy, go to Spirit Rock
- Stay embodied, which helps dampen runaway emotional-visual reactions

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*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

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*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

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*Penetrative insight*

*joined with calm abiding*

*utterly eradicates*

*afflicted states.*

Shantideva

# The Buddha's Words on Lovingkindness

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*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.*

# 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.*

# Flashes of Nibbana

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*Actually, when we meditate we do experience little breakthroughs, like tiny flashes of the unconditioned mind. But that's just the beginning of the processes. It's certainly not the end!*

*Wisdom is a huge subject. It 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.*

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***May you know love, joy,  
wonder, and wisdom,  
in this life,  
just as it is.***

**Thank you!**