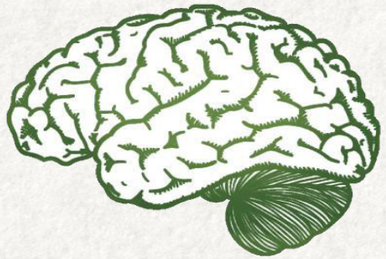
When we try to pick out
anything by itself,
we find it hitched to
everything else in the universe.

John Muir

Opening into Allness



Spirit Rock, December 14, 2019

Rick Hanson, Ph.D.
Wellspring Institute for Neuroscience and Contemplative Wisdom
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Foundations

We’ll be exploring experiences of

Steadiness

Wholeness

Nowness

Allness

In the Garden of the Mind

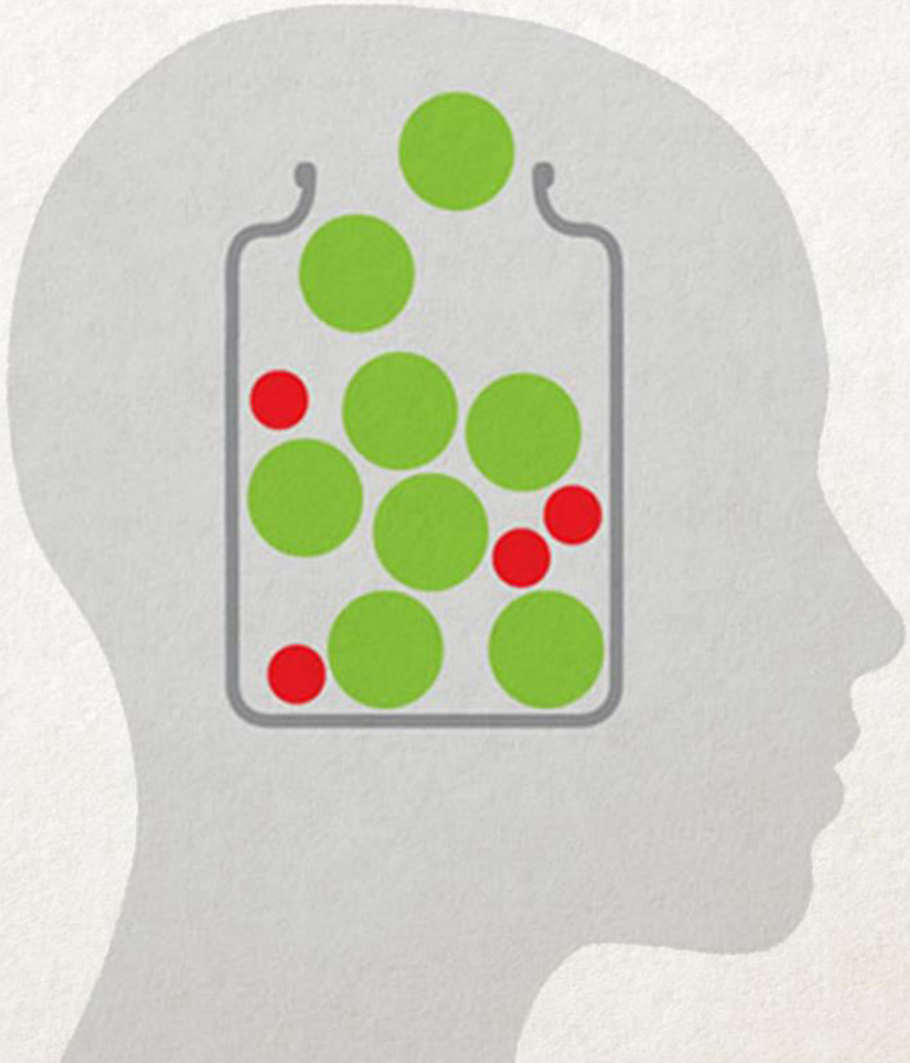
1	2	3
Be with what is there	**Decrease the negative**	**Increase the positive**

Witness. Pull weeds. Plant flowers.
Let be. Let go. Let in.
Mindfulness is present in all three.

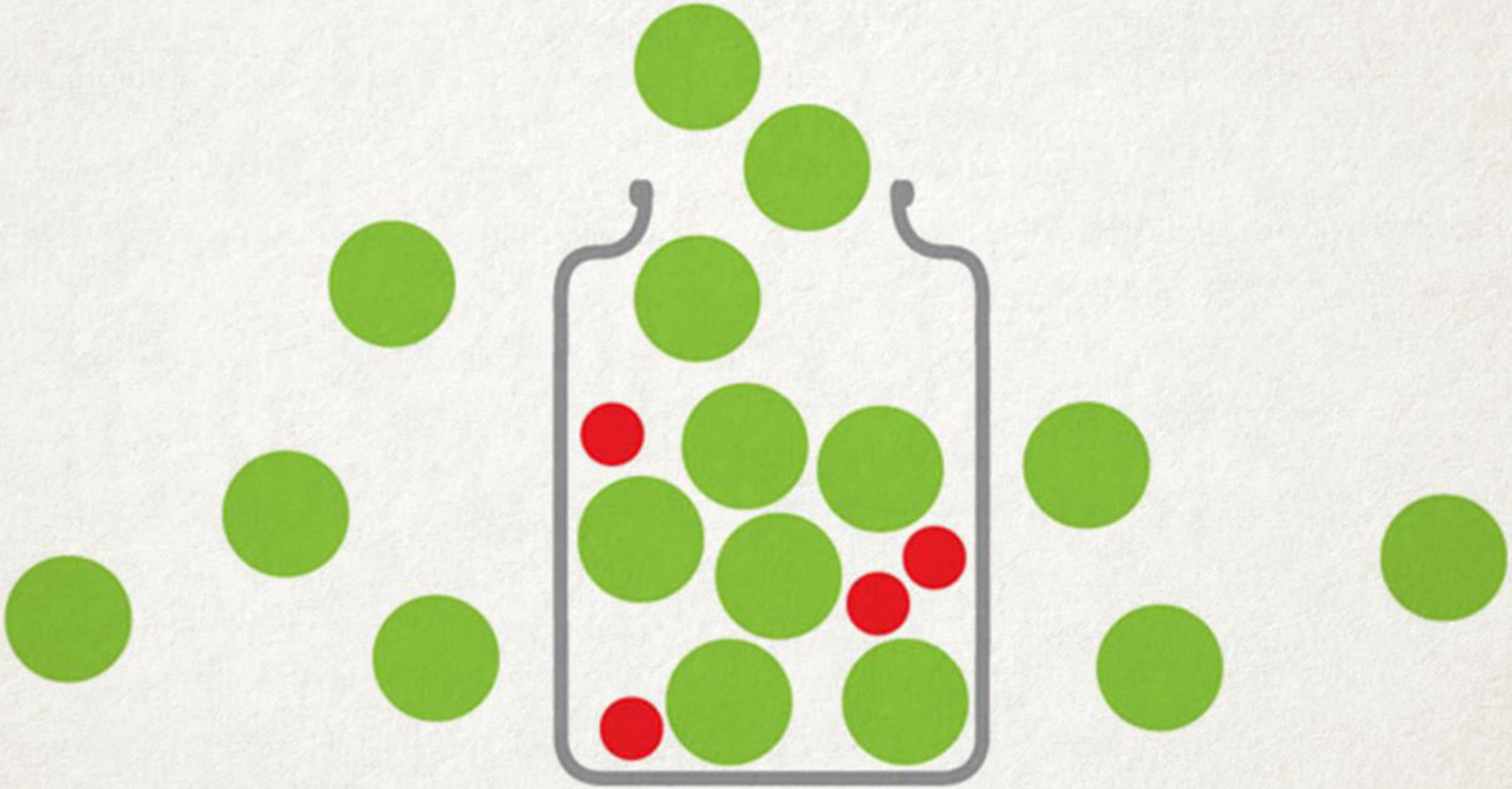
"Being with" is primary – but not enough.

We also need "wise effort."

Which Means Changing the Brain For the Better




Neurons that fire together,
wire together.



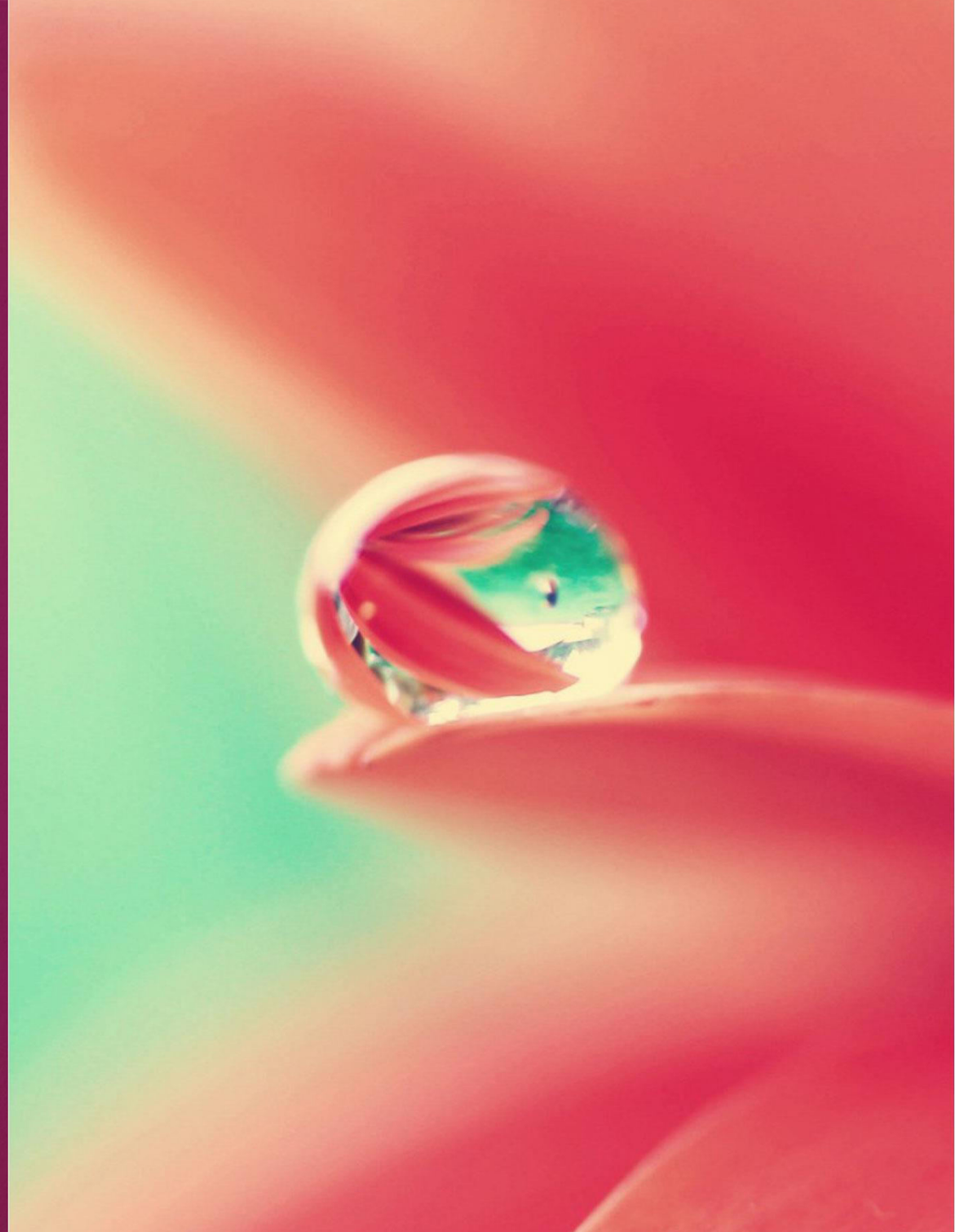
Have It, Enjoy It

Think not lightly of good, saying,
“It will not come to me.”

Drop by drop is
the water pot filled.

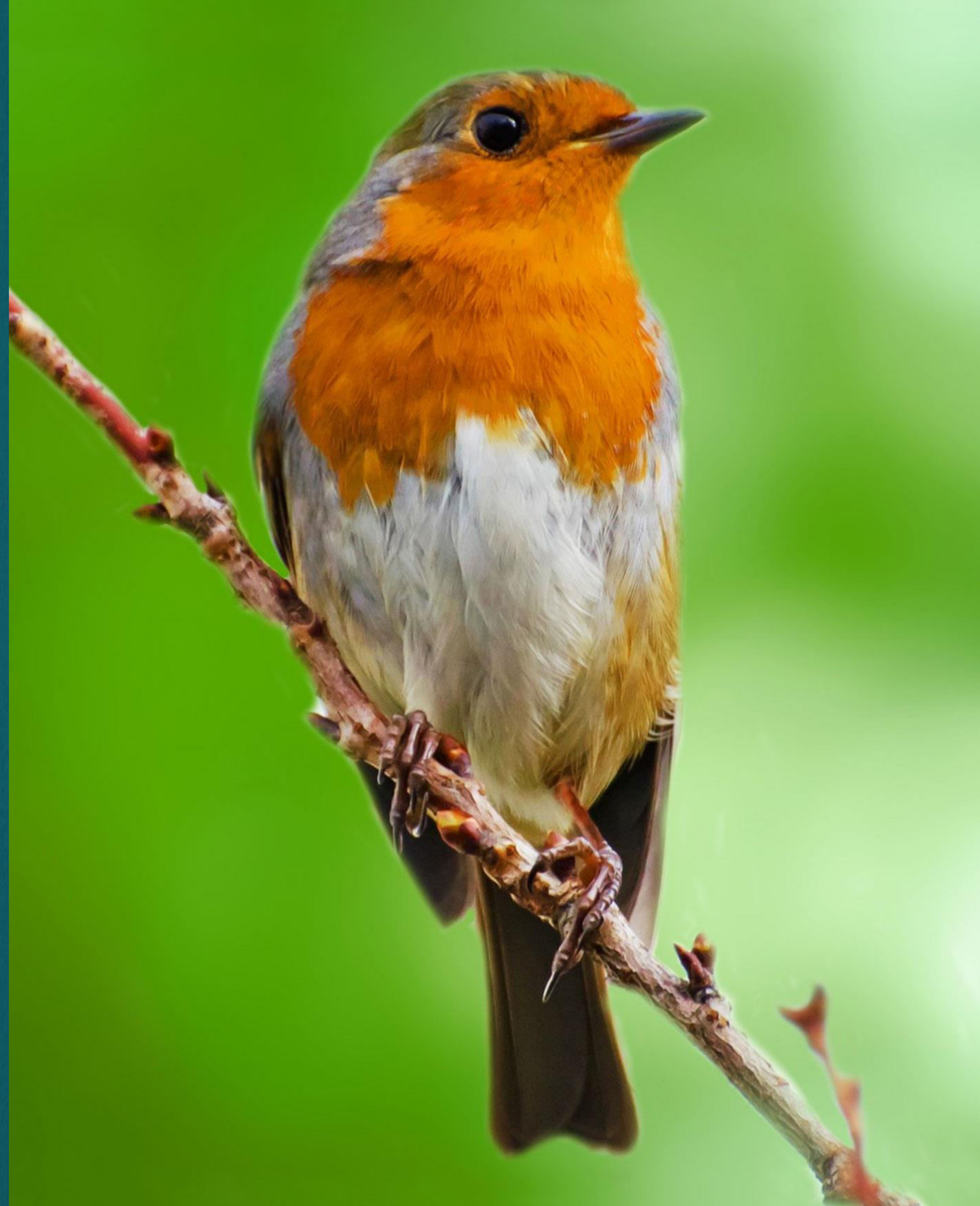
Likewise, the wise one,
Gathering it little by little,
Fills oneself with good.

Dhammapada 9.122



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

Lao Tzu



Steadying the Mind

Basics of Meditation

- Good will toward yourself
- Posture that is comfortable and alert
- In the present; aware and letting go
- Stable object of attention
- The mind settling and coming to rest

Mental Factors of Steadiness

- Establishing intention
- Relaxing body and breath
- Warming the heart
- Feeling safer
- Opening to positive emotions

Neural Factors of Steadiness

Intention – Top-down and bottom-up

Relaxation – Parasympathetic NS

Heartwarming – Social engagement sys.

Safer – Calms sympathetic NS

Positive emotions – Steadies attention, reduces “craving”

Enjoying Wholeness

The Parts and the Whole

Suffering is parts struggling with parts.

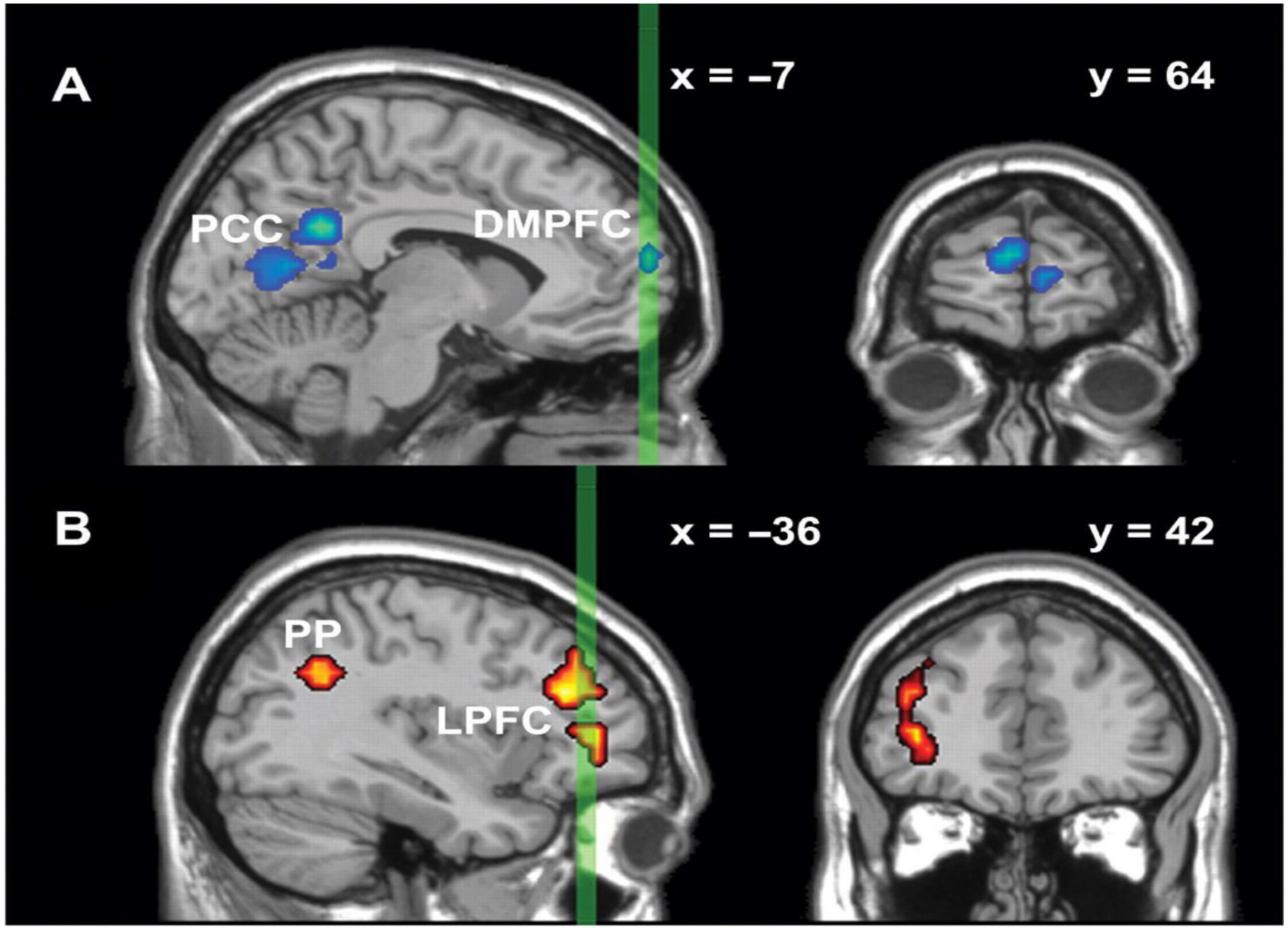
Meanwhile, there is always mind as a whole.

Mind as a whole simply is, not a problem.

When you experience your mind as a whole,
suffering falls away.

What helps us experience the mind as a whole?

Self-Focused (blue) and Open Awareness (red)



Farb, et al. 2007. *Social Cognitive Affective Neuroscience*, 2:313-322

Ways to Activate Lateral Networks

Focus on the present moment.

Don’t problem-solve, fantasize, or ruminate.

Relax the sense of “me” and “I.”

Widen into a panoramic view.

Rest in “don’t know mind.”

Sense your body as a whole.

Sensing Your Body as a Whole

Be aware of sensations of breathing all over your body.

Pick an area (e.g., chest) and include all the sensations there as a single whole.

Relax and receive sensations.

Gradually include more of your body.

Abide as a whole body breathing

Softening All the Edges

Relaxing, abiding as a body breathing

Sensations softening together

Heart softening

Everything in the mind softening together, a single mind process, awareness included

Edges softening between you and everything

Receiving Nowness

Enlightenment is
to forget this moment
and grow into the next.

Suzuki Roshi

Let go of the past, let go of the future,
let go of the present, and cross over
to the farther shore of existence.

With mind wholly liberated,
you shall come no more
to birth and death.

Dhammapada, 24.348

The Present Moment of Mind

Now is the great mystery: infinitely thin temporally, yet containing everything.

Imagine super-slow motion mindfulness of the emergent edge of Now, coming into being as it passes away.

The Present Moment of Brain

The neural networks of alerting track the leading edge of the windshield of consciousness.

These alerting networks entwine with allocentric networks that support the sense of being one with everything.

If you let go a little,
you'll have a little peace.

If you let go a lot,
you'll have a lot of peace.

If you let go completely,
you'll be completely peaceful.

Ajahn Chah

Letting Go

Rest in a sense of alrightness . . . peaceful, contented, warmhearted.

Be mindful of this moment continually emerging . . . so it's alright to let go.

Let go while exhaling.

Be mindful of sensations, all experiences changing . . . letting them pass away.

Opening into Allness

Allocentric Framework

Based on more ancient regions of the brain

Being-ness; alrightness already

What it is, independent of “me”; impersonal

Upper visual field

Egocentric Framework

Based on more recent regions of the brain

Doing-ness; goal-directed

Where it is, related to “me”; personal

Lower visual field

The Allocentric/Egocentric Dance

Alternately normally

As one increases, the other decreases

With new stimuli – thus, alerting –
allocentric increases briefly, then
egocentric response shaped by the
hedonic tone

Factors of Allocentrism

Fullness – nothing missing or wrong

Wholeness – wide inclusive awareness

Nowness – alerting, openness

Tranquility – GABA-regulated switches

Recognizing interconnectedness – you're a local ripple in the vast ocean of causes

Only Allness

Much as the mind is a whole, the material universe is a whole.

The allness that includes every sort of mind and matter is also a whole.

Allness as allness is always allness.

Much as mind as a whole is never a problem, allness as allness is never a problem.

Opening, in Peace

Feeling at ease . . . tranquil and alert

Your gaze or imagination extend out to the horizon and beyond

Experiences flowing, edges softening

Knowing you are lived by everything

Opening into allness

Intimations of The Unconditioned


MIND
MATTER
MYSTERY

My mind has reached
the unconditioned.

I have attained
the destruction of craving.

Dhammapada 11.154

The entire world is in flames,
the entire world is going up in smoke;
the entire world is burning,
the entire world is vibrating.

But that which does not vibrate or burn,
which is experienced by the noble ones,
where death has no entry –
in that my mind delights.

The Buddha

The born, come-to-be, produced,
The made, the conditioned, the transient,
Conjoined with decay and death,
A nest of disease, perishable,
Sprung from nutriment and craving's cord –
That is not fit to take delight in.

The escape from that,
The peaceful, beyond reasoning, everlasting,
The not-born, the unproduced,
The sorrowless state that is void of stain,
The cessation of states linked to suffering,
The stilling of the conditioned – bliss.

Itivuttaka 2.16

Unconditioned Possibility

Consider what may be always just prior to the emergent edge of now.

Also consider whether consciousness is necessary for quantum potentiality to congeal into actuality Now . . . continuously, throughout the universe.

Be still
Listen to the stones of the wall
Be silent, they try
To speak your

Name.
Listen to the living walls.
Who are you?
Who
Are you? Whose
Silence are you?

Thomas Merton

Pointing directly to the heart-mind

See your own nature

And become Buddha.

Hakuin

References

Suggested Books

See RickHanson.net for other good books.

- Austin, J. 2009. *Selfless Insight*. MIT Press.
- Begley. S. 2007. *Train Your Mind, Change Your Brain*. Ballantine.
- Carter, C. 2010. *Raising Happiness*. Ballantine.
- Hanson, R. (with R. Mendius). 2009. *Buddha's Brain: The Practical Neuroscience of Happiness, Love, and Wisdom*. New Harbinger.
- Johnson, S. 2005. *Mind Wide Open*. Scribner.
- Keltner, D. 2009. *Born to Be Good*. Norton.
- Kornfield, J. 2009. *The Wise Heart*. Bantam.
- LeDoux, J. 2003. *Synaptic Self*. Penguin.
- Linden, D. 2008. *The Accidental Mind*. Belknap.
- Sapolsky, R. 2004. *Why Zebras Don't Get Ulcers*. Holt.
- Siegel, D. 2007. *The Mindful Brain*. Norton.
- Thompson, E. 2007. *Mind in Life*. Belknap.

Selected References - 1

See www.RickHanson.net/key-papers/ for other suggested readings.

- Atmanspacher, H. & Graben, P. (2007). Contextual emergence of mental states from neurodynamics. *Chaos & Complexity Letters*, *2*, 151-168.
- Bailey, C. H., Bartsch, D., & Kandel, E. R. (1996). Toward a molecular definition of long-term memory storage. *PNAS*, *93*(24), 13445-13452.
- Baumeister, R., Bratlavsky, E., Finkenauer, C. & Vohs, K. (2001). Bad is stronger than good. *Review of General Psychology*, *5*, 323-370.
- Bryant, F. B., & Veroff, J. (2007). *Savoring: A new model of positive experience*. Mahwah, NJ: Erlbaum.
- Casasanto, D., & Dijkstra, K. (2010). Motor action and emotional memory. *Cognition*, *115*, 179-185.
- Claxton, G. (2002). Education for the learning age: A sociocultural approach to learning to learn. *Learning for life in the 21st century*, 21-33.
- Clopath, C. (2012). Synaptic consolidation: an approach to long-term learning.*Cognitive Neurodynamics*, *6*(3), 251–257.

Suggested References - 2

- Craik F.I.M. 2007. Encoding: A cognitive perspective. In (Eds. Roediger HL I.I.I., Dudai Y. & Fitzpatrick S.M.), *Science of Memory: Concepts* (pp. 129-135). New York, NY: Oxford University Press.

- Davidson, R.J. (2004). Well-being and affective style: neural substrates and biobehavioural correlates. *Philosophical Transactions of the Royal Society, 359*, 1395-1411.

- Dudai, Y. (2004). The neurobiology of consolidations, or, how stable is the engram?. *Annu. Rev. Psychol.*, *55*, 51-86.

- Dweck, C. (2006). *Mindset: The new psychology of success*. Random House.

- Fredrickson, B. L. (2013). Positive emotions broaden and build. *Advances in experimental social psychology*, *47*(1), 53.

- Garland, E. L., Fredrickson, B., Kring, A. M., Johnson, D. P., Meyer, P. S., & Penn, D. L. (2010). Upward spirals of positive emotions counter downward spirals of negativity: Insights from the broaden-and-build theory and affective neuroscience on the treatment of emotion dysfunctions and deficits in psychopathology. *Clinical psychology review*, *30*(7), 849-864.

Suggested References - 3

- Hamann, S. B., Ely, T. D., Grafton, S. T., & Kilts, C. D. (1999). Amygdala activity related to enhanced memory for pleasant and aversive stimuli. *Nature neuroscience*, *2*(3), 289-293.

- Hanson, R. 2011. *Hardwiring happiness: The new brain science of contentment, calm, and confidence*. New York: Harmony.

- Hölzel, B. K., Ott, U., Gard, T., Hempel, H., Weygandt, M., Morgen, K., & Vaitl, D. (2008). Investigation of mindfulness meditation practitioners with voxel-based morphometry. *Social cognitive and affective neuroscience*, *3*(1), 55-61.

- Hölzel, B. K., Carmody, J., Evans, K. C., Hoge, E. A., Dusek, J. A., Morgan, L., ... & Lazar, S. W. (2009). Stress reduction correlates with structural changes in the amygdala. *Social cognitive and affective neuroscience*, nsp034.

- Jamrozik, A., McQuire, M., Cardillo, E. R., & Chatterjee, A. (2016). Metaphor: Bridging embodiment to abstraction. *Psychonomic bulletin & review*, 1-10.

- Kensinger, E. A., & Corkin, S. (2004). Two routes to emotional memory: Distinct neural processes for valence and arousal. *Proceedings of the National Academy of Sciences of the United States of America*, *101*(9), 3310-3315.

Suggested References - 4

- Koch, J. M., Hinze-Selch, D., Stingele, K., Huchzermeier, C., Goder, R., Seeck-Hirschner, M., et al. (2009). Changes in CREB phosphorylation and BDNF plasma levels during psychotherapy of depression. Psychotherapy and Psychosomatics, 78(3), 187–192.

- 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.

- Lee, T.-H., Greening, S. G., & Mather, M. (2015). Encoding of goal-relevant stimuli is strengthened by emotional arousal in memory. *Frontiers in Psychology*, *6*, 1173.

- Lutz, A., Brefczynski-Lewis, J., Johnstone, T., & Davidson, R. J. (2008). Regulation of the neural circuitry of emotion by compassion meditation: Effects of meditative expertise. PLoS One, 3(3), e1897.

- Madan, C. R. (2013). Toward a common theory for learning from reward, affect, and motivation: the SIMON framework. *Frontiers in systems neuroscience*, *7*.

- Madan, C. R., & Singhal, A. (2012). Motor imagery and higher-level cognition: four hurdles before research can sprint forward. *Cognitive Processing*, *13*(3), 211-229.

Suggested References - 5

- McEwen, B. S. (2016). In pursuit of resilience: stress, epigenetics, and brain plasticity. *Annals of the New York Academy of Sciences*, *1373*(1), 56-64.
- McGaugh, J.L. 2000. Memory: A century of consolidation. *Science*, 287, 248-251.
- Nadel, L., Hupbach, A., Gomez, R., & Newman-Smith, K. (2012). Memory formation, consolidation and transformation. *Neuroscience & Biobehavioral Reviews*, *36*(7), 1640-1645.
- Pais-Vieira, C., Wing, E. A., & Cabeza, R. (2016). The influence of self-awareness on emotional memory formation: An fMRI study. *Social cognitive and affective neuroscience*, *11*(4), 580-592.
- Palombo, D. J., & Madan, C. R. (2015). Making Memories That Last. *The Journal of Neuroscience*, *35*(30), 10643-10644.
- Paquette, V., Levesque, J., Mensour, B., Leroux, J. M., Beaudoin, G., Bourgouin, P. & Beauregard, M. 2003 Change the mind and you change the brain: effects of cognitive-behavioral therapy on the neural correlates of spider phobia. NeuroImage 18, 401–409.
- Rozin, P. & Royzman, E.B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, *5*, 296-320.

Suggested References - 6

- Sneve, M. H., Grydeland, H., Nyberg, L., Bowles, B., Amlien, I. K., Langnes, E., ... & Fjell, A. M. (2015). Mechanisms underlying encoding of short-lived versus durable episodic memories. *The Journal of Neuroscience*, *35*(13), 5202-5212.

- Talmi, D. (2013). Enhanced Emotional Memory Cognitive and Neural Mechanisms. *Current Directions in Psychological Science*, *22*(6), 430-436.

- Thompson, E. (2007). *Mind in life: Biology, phenomenology, and the sciences of mind*. Harvard University Press.

- Wittmann, B. C., Schott, B. H., Guderian, S., Frey, J. U., Heinze, H. J., & Düzel, E. (2005). Reward-related FMRI activation of dopaminergic midbrain is associated with enhanced hippocampus-dependent long-term memory formation. *Neuron*, *45*(3), 459-467.

- Yonelinas, A. P., & Ritchey, M. (2015). The slow forgetting of emotional episodic memories: an emotional binding account. *Trends in cognitive sciences*, *19*(5), 259-267.