

# The Wise Brain Bulletin

News and Tools for Happiness, Love, and Wisdom  
Volume 2, 7 (7/11/08)

*Featured Article:*

## *Notes on the Neuroscience of Compassionate Connection*

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90% of what we know about how the brain actually processes experience and information has been learned in the last 15 years. Neuroscientists report new research findings almost daily – how mindfulness practice improves immune function and strengthens the circuits our brains use for attention, empathy, self-awareness. How the mirror neurons in our brains pick up signals from motor neurons in someone else’s brain and allow us to “read” their intentions even without words. How our brains can grow new neurons and, more importantly, new synaptic connections among neurons, lifelong. You can teach an old dog new tricks.

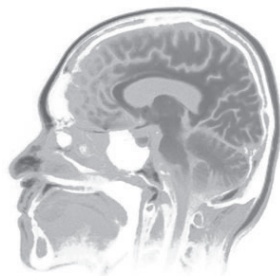
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Focused attention - on anything - causes neurons in the brain to fire – to activate and send signal one another. Focusing our attention on the same thing repeatedly causes the same neurons to fire repeatedly, activating the same synaptic connections with other neurons over and over. Neurons that “fire together wire together,” creating new neural circuits and pathways. This is the neurological mechanism underlying the power of any concentration practice such as compassion practice or gratitude practice. It’s the same mechanism that underlies the power of positive affirmations.

### **Also in this issue:**

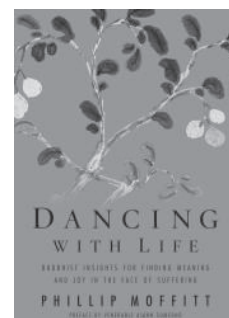
Thoughts on  
the Brain

pg. 6



Book  
Review

pg. 5



## Greetings

The Wise Brain Bulletin offers skillful means from brain science and contemplative practice – to nurture your brain for the benefit of yourself and everyone you touch.

The Bulletin is offered freely, and you are welcome to share it with others. Past issues are archived at [www.WiseBrain.org](http://www.WiseBrain.org).

Rick Hanson, PhD and Richard Mendius, MD edit the Bulletin, and it's designed and laid out by Laurel Hanson. To subscribe, please contact Rick at [drh@comcast.net](mailto:drh@comcast.net).

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The power of implicit memory to hijack our emotions is amazing. When we suddenly feel powerful and painful feelings, especially if they seem out of proportion to whatever might have triggered them in the current moment, we may very well be experiencing an implicit (unconscious) memory of a past moment - all the body sensations and feelings of an experience in the past with no conscious sense in the moment at all that what we are experiencing is a memory.

What we're experiencing

now feels so real, it must be true! But, most likely, we are re-experiencing a moment from the past re-triggered in the present. Often just considering that our current experience is being supercharged by experiences we've had before can calm down our reactivity and help us reflect on the experience of the current moment without having to do something drastic (or defensive) to fix it.

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One of my favorite therapeutic interventions with couples these days is letting them know that a 20-second full body hug with someone we love releases the bonding hormone oxytocin and helps create the "oceanic feeling of devotion" we experience as blissful love. (Try it!)

Couples may need more than bonding hugs to work through their issues, but simply to know they can use what we know about how our brains work to create immediate state changes is liberating.

\* \* \* \* \*

Our brains are hardwired to experience "separation

distress" whenever someone we are enjoying meaningful eye contact with turns their gaze away. The emotional circuitry of our brains reacts instantly and signals us to either to:

- \* move to reconnect with the other person through the social engagement behaviors of our higher brain (cortex),
- \* move against or away from them rather than towards - the fight-of-flight mode of our mid-brain (amygdala), or
- \* shut down and freeze in the mode of our lower survival brain (brainstem).

The more social intelligence we have developed over the years, the more likely we are to "use our words" to re-engage the person. "Hello? Has something happened? Did you just get distracted?" Rather than over-reacting emotionally, shaming-blaming them or ourselves, or acting out behaviorally – numbing out or dissociating.

\* \* \* \* \*

We need all kinds of tools to cope with the separation distress response. (Powerful implicit memories of past abandonment can be triggered in a heart beat.) One of the quickest coping mechanisms to calm down the part of our nervous system that is experiencing distress is simply to place our own hand on our own heart. Gently touching the heart center calms down the polyvagal nervous system that has just reacted in alarm, recalibrates it, and allows the cortical (higher brain) social engagement system to come back online again and re-connect skillfully.

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## San Rafael Meditation Group

Open to beginners and experienced practitioners, we meet on Wednesday evenings at the A Sante day spa in downtown San Rafael at the corner of Brooks and 3rd. "Early-bird" meditation starts at 6:45 with formal instruction at 7:00; meditation ends at 7:30, followed by a brief break, and then a dharma talk and discussion, ending at 8:30. It is led by Rick Hanson, and for more information, check out [www.WiseBrain.org/sanrafaelmeditation.html](http://www.WiseBrain.org/sanrafaelmeditation.html). Newcomers are always welcome!

Neuroscience doesn't have all the answers to all the questions we have about consciousness and compassionate connection. If anything, the field of brain research is just coming around to some of the same old questions from a new angle and with new technology. But try placing your hand on your heart the next time you become alarmed at a sudden disconnect with someone and see for yourself if that behavior makes a palpable difference.

Sharon Salzberg, author of *Loving Kindness: The Revolutionary Art of Happiness*, tells of her own experience practicing loving kindness on a 10-day meditation retreat. For the longest time, the practice seemed to have no effect at all on the automatic critical thoughts constantly streaming through her mind. "Who do you think you are? You'll never get this right. You're such a klutz" etc.,

One day, she was in the bathroom and accidentally knocked over a vase, which shattered. Her first thought was still "Oh, you klutz!" but her immediate next thought, almost without thinking, was "But I love you anyway." Her brain and heart were beginning to change, creating a new habit of kindness. In the decades since, Sharon has taught thousands of practitioners the art of being kind and loving toward ourselves....anyway.

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I have a tendency to become irritable and critical when my expectations of someone are disappointed. I move toward "fixing" them rather than tolerating what is happening and learning-growing-changing from there. About a year ago I became truly dismayed at the damaging impact this tendency – actually a pretty entrenched habit – was having on my relationship with my beloved partner. I began a practice – consciously and conscientiously – to instantly antidote any critical impulse by saying the word "Compassion!" out loud as quickly as I could catch myself. I repeated this antidote over and over and over, saying "compassion!" whenever a critical impulse arose. Gradually, I could catch my critical impulses more quickly. Gradually I could antidote them more thoroughly. Gradually I could feel the actual feeling of compassion, for my partner and for myself, as it arose in my body. Eventually, the new habit took over. More and more consistently I can catch and stop my critical tendencies as soon as they arise before they do any damage. My brain has created a new pathway, and my relationship is thriving.

*Linda Graham, MFT, is an experienced meditator in the vipassana tradition and full-time psychotherapist in San Francisco and Marin. [www.lindagraham-mft.com](http://www.lindagraham-mft.com)*

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## **Train Your Brain**

This course teaches practical, down-to-earth ways to activate the brain states that promote: Steady Awareness, Wholesome Feelings, Good Intentions, Caring Heart, and Wise Action. It is taught in a 24-month cycle which you can enter at any time. Talks and materials from past class sessions are archived at [www.WiseBrain.org](http://www.WiseBrain.org).

The class meets on the 2nd Tuesday of every month, 7 – 9:15 pm, at the Unitarian Universalist church in Terra Linda (San Rafael), at 240 Channing Way. The atmosphere is warm, informal, and focused. The suggested fee for each month of the program is \$20 - \$40, but no one will be turned away for lack of funds. Please arrive ten to fifteen minutes early so you will have ample time to register for the class.

Upcoming dates and topics:

- 8/12/08 – Feeling felt

Tolerating closeness. Dealing with past feelings of invasion, violation, intrusive control, "Trojan horses" of manipulative seductions, etc. HeartMath methods for calming and opening the heart, literally and figuratively. Feeling strong enough to rely on others.

# Words of Wisdom

*The greatest revolution is the discovery that human beings, by changing the inner attitudes of their minds, can change the outer aspects of their lives.*

William James

*We have not solved your problem. In fact, we have more questions than when we started. But we believe we are confused at a higher level and about more important things.*

Plaque above entrance to electrical engineering consulting lab, SRI International

*If we knew what we were doing, it would not be called research, would it?*

Albert Einstein

*It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.*

Charles Darwin

*Knowledge rests not upon truth alone, but upon error also.*

Carl G. Jung

*No matter what bad things people say or do to you... just give love!*

Lama Osel Rinpoche

*Compassion is a verb.*

Thich Nhat Hanh

*When I practiced, I didn't know anything about mind moments or psychological factors. I just observed the quality of knowing. If a thought of hate arose, I asked myself why. If a thought of love arose, I asked myself why. This is the way.*

*Whether it's labeled as a thought or called a psychological factor, so what? Just penetrate this one point until you're able*

*to resolve these feelings of love and hate, until they completely vanish from the heart. When I was able to stop loving and hating under any circumstances, I was able to transcend suffering, because at that point, no matter what happens, the heart and mind are released and at ease. Nothing remains; it has all stopped.*

Ajahn Chah, in Buddhadharma, Spring, 2008, 28

*Wherever you go, go with all your heart.*

Confucius

*A life spent making mistakes is not only more honorable but more useful than a life spent in doing nothing.*

George Bernard Shaw

*And then one day, for no apparent reason, something in particular comes to fetch us: the cook coughs or the morning star rises, and we fall open. A particular intimate meeting with a particular other opens us to an intimate relationship with life itself.*

*Practice is about making us fetchable. It helps us to recognize what gets in the way of our being fetched, and then it gives us a method to deconstruct the obstacle.*

Joan Sutherland, Buddhadharma, Spring, 2008, 25

*This is the true joy in life, the being used up for a purpose recognized by yourself as a mighty one. Life is no "brief candle" for me. It is a sort of splendid torch which I have got hold of for a moment, and I want to make it burn as brightly as possible before handing it on to the future generations.*

George Bernard Shaw

*Tell me, what is it you plan to do with your one wild and precious life?*

Mary Oliver

## ***Book Review:***

# ***Dancing with Life***

***Phillip Moffitt (Rodale, 2008)***

Reviewed by Brooke A. Brown, Ph.D., © 2008

Most Sunday evenings find Phillip Moffitt teaching the dharma in Corte Madera, California, in a sangha he formed ten years ago. Dharma for Moffitt is alive and practical, not theoretical or abstract, and he anchors the teachings in everyday life examples.

*Dancing with Life: Buddhist Insights for Finding Meaning and Joy in the Face of Suffering* is Moffitt's gift to us, a handbook for those of us who wish to lessen our suffering. The book has grown out of Moffitt's life experience both as a student of the dharma and teacher and is replete with concrete examples, ones the reader can relate with and apply to his or her individual situation.

Moffitt brings to his role of dharma teacher a range of life experiences which include being a longtime student of yoga and Theravadin Buddhism, author, former editor-in-chief and chief executive of *Esquire* magazine, and board member for the C. G. Jung Institute. His longstanding interest in Jung, Helen Luke, and T. S. Eliot enriches his teaching with psychological insight.

Dukkha, or unsatisfactoriness/suffering, is inevitable in our lives because we cannot control the arising of causes and conditions that surround us.

However, we can choose how we choose to respond to dukkha, and how we respond is what Moffitt calls "dancing with life." He reminds us that it is possible to respond to our suffering in a way whereby we are not defined by it; rather, suffering is simply part of our dance. *Dancing with Life* guides us in how to be a good dance

partner, how to develop and hone our skills in this ongoing engagement that is life.

Moffitt does this by penetrating the Buddha's primary teaching—the Four Noble Truths—which is the basis for the book, and his ability to deconstruct and detail each of the Four Noble Truths feeds our capacity to become more mindful in our lives. Mindfulness is key, for it is mindfulness that enables us to respond rather than react.

*Dancing with Life* is divided into four books—one for each of the Four Noble Truths—each containing three insights. The Venerable Ajahn Sumedho, who wrote the preface to *Dancing with Life*, writes that ". . . the lucid way in which Phillip has written about how to actualize the twelve insights is a real achievement."

The reader can opt to read the book through and later return to study different sections or choose to read the sections that beckon. In either case, Moffitt would exhort you to "make it your book!" This typifies Moffitt's approach to the dharma, which is to hold the Four Noble

### ***The Wellspring Institute for Neuroscience and Contemplative Wisdom***

The Institute is a 501c3 non-profit corporation, and it publishes the Wise Brain Bulletin. The Wellspring Institute gathers, organizes, and freely offers information and methods – supported by brain science and the contemplative disciplines – for greater happiness, love, effectiveness, and wisdom. For more information about the Institute, please go to [www.WiseBrain.org](http://www.WiseBrain.org).

Truths as a practice system, not a belief system.

Moffitt quotes Ajahn Chah:

*There are two kinds of suffering: the suffering that leads to more suffering and the suffering that leads to the end of suffering. If you are not willing to face the second kind of suffering, you will surely continue to experience the first.*

*Dancing with Life* offers us a way to face “the second kind of suffering” and thus have a more meaningful relationship with our lives—for this is it! Why wouldn’t we want our participation to be as rich as possible? We may not be living the lives we wished we lived: but, nonetheless, this is the life we have. This book details the path

of bringing as much mindfulness to our daily experience and enriching our lives in that manner.

For more information about *Dancing with Life* and a schedule of Moffitt’s book tour, go to [www.dancing-withlife.org](http://www.dancing-withlife.org).

*Brooke A. Brown, Ph.D. is a clinical psychologist in Marin County and San Francisco, California, as well as a longtime member of the Marin Sangha, which Moffitt leads. She was trained in an integrative approach to wellness and will run wellness groups in the fall. For information you can contact her at [drbrookeabrown@gmail.com](mailto:drbrookeabrown@gmail.com).*

## ***Lean Right, Left, or??***

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The June issue of this Bulletin carried a review of Jill Taylor’s riveting first-hand account of experiencing a stroke that left her operating from her right brain only. Cheryl Wilfong wrote: “The left brain functions of distinguishing, categorizing and recognition shut down, leaving her with the bare experience of sense contact. Phone numbers became squiggles on paper; voices emitted unrecognizable sounds; light burned her eyes. The sense of a separate body dissolved into a feeling of fluidity and being one with the Universe.” Dr. Taylor’s ‘take-home’ message was “Peace is only a thought away, and all we have to do to access it is silence the voice of our dominating left mind.”

To me, this “good right brain, bad left brain” notion seemed too simplistic. In fact, I recalled an article by psychologist and well-known author Daniel Goleman that was titled “Finding Happiness: Cajole Your Brain to Lean to the Left.” In it, Goleman

described the research of Dr. Richard Davidson, director of the Laboratory for Affective Neuroscience at the University of Wisconsin. Davidson has been one the leaders of the dialogue between the Dalai Lama and top psychologists and neuroscientists from the United States. Goleman writes:

“Dr. Davidson, in recent research using functional M.R.I. and advanced EEG analysis, has identified an index for the brain’s set point for moods. The functional M.R.I. images reveal that when people are emotionally distressed -- anxious, angry, depressed -- the most

### ***Perspectives on Self-Care***

Be careful with all self-help methods (including those presented in this Bulletin), which are no substitute for working with a licensed healthcare practitioner. People vary, and what works for someone else may not be a good fit for you. When you try something, start slowly and carefully, and stop immediately if it feels bad or makes things worse.



active sites in the brain are circuitry converging on the amygdala, part of the brain's emotional centers, and the right prefrontal cortex, a brain region important for the hypervigilance typical of people under stress. By contrast, when people are in positive moods -- upbeat, enthusiastic and energized -- those sites are quiet, with the heightened activity in the left prefrontal cortex.

Indeed, Dr. Davidson has discovered what he believes is a quick way to index a person's typical mood range, by reading the baseline levels of activity in these right and left prefrontal areas. The more the ratio tilts to the right, the more unhappy or distressed a person tends to be, while the more activity to the left, the more happy and enthusiastic. By taking readings on hundreds of people, Dr. Davidson has established a bell curve distribution, with most people in the middle, having a mix of good and bad moods. Those relatively few people who are farthest to the right are most likely to have a clinical depression or anxiety disorder over the course of their lives. For those lucky few farthest to the left, troubling moods are rare and recovery from them is rapid."

How can we reconcile the account of Jill Taylor with

the research of Dr. Davidson? For one thing, there is a difference between "normal" brain/mind activity and a unique catastrophic event. In the emergency state of her stroke, the positive mood-regulating action of the left prefrontal cortex was pretty much irrelevant, as her system struggled just to function in its surroundings. But for those of us leading normal lives, this left-brain activity is quite beneficial (not to mention the other left-brain activities that enable our survival as an organism). Further clues come from the location of her stroke, which was in the left temporal lobe - site of expressive and receptive language - and in the left parietal lobes, which helps give us a sense of location in space.

Mindfulness practices can help us relax the left-brain activities of categorizing and forming a sense of hard boundaries between self and environment. At the same time, other mindfulness practices can support the "lean to the left" shift suggested by Dr. Davidson. Daniel Goleman reports results from a study that taught mindfulness to workers in a high-pressure biotech business for roughly three hours a week over two months. A comparison group of volunteers from the company received the training later, though they, like the participants,



were tested before and after training by Dr. Davidson and his colleagues. Before the mindfulness training, the workers were on average tipped toward the right in the ratio for the emotional set point, and they complained of feeling highly stressed. After the training, however, on average their emotions ratio shifted leftward, toward the positive zone. Simultaneously, their moods improved; they reported feeling engaged again in their work, more energized and less anxious. The results confirm what many people experience after a meditation retreat.

The fruits of the Middle Way over the ages suggest that we should wisely use the faculties of the left and right brain, strengthening those that contribute to genuine happiness and ease, and weakening those that cause distress to ourselves and others.

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# Offerings

Rick Hanson, PhD, and Rick Mendius, MD

1. At Spirit Rock, in 2008, these daylongs with Rick Hanson and Rick Mendius are scheduled:

- The Neurology of Awakening, on Saturday, September 6. We'll cover how to nurture the brain states that foster the steadiness of mind leading to the deepest and most liberating insights. This is our foundational workshop, with solid neurology and practical tools for activating, step-by-step, the brain states of the Buddha's progressive process of contemplative illumination.

- The Hard Things That Open the Mind and Heart: Practicing with Difficult Conditions, led with James Baraz, on Sunday, November 2. This is for people grappling with difficult conditions – both internal and external – and for caregivers and friends who support those individuals. These include challenges with the body, mind, and life circumstances. We'll cover Buddhist perspectives and practices for difficult conditions; lovingkindness for oneself and for any being who suffers; brain-savvy ways to strengthen your capacity to be with the hard stuff; and methods from the intersection of the dharma and neuroscience for lifting mood and cultivating joy

- Resting in Emptiness: The Evolution of Awareness and the Transcendence of the Self, on Sunday, November 30. This workshop will address the thorny and fundamental question of . . . “me, myself, and I.” The self – with its tendencies to grasp after possessions and take things personally – is perhaps the premier engine of suffering. We'll explore the evolution of the apparent self in the animal kingdom, and the ways in which the self is real and is also not real at all, coming to rest more and more in the underlying spacious awareness in which self appears and disappears.

2. At the Sati Center in Redwood City, California, on Saturday, October 4, we will be presenting the Resting in Emptiness daylong.

3. At Claremont Graduate University, during October 19 – 21, we will be discussants at a conference on using neuropsychology to help illuminate the common ground – and differences – among the contemplative practices of different faith traditions.

***Fare Well***

***May you and all beings be happy, loving, and wise.***