The Wise Brain Bulletin

News and Tools for Happiness, Love, and Wisdom

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Attuned Adolescents:
Simple Neuroscience and Mindfulness Tools for Teens

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Imagine feeling stressed, sleep-deprived, euphoric, popular, paranoid, lonely, lovestruck, resentful, energetic, powerless, misunderstood, hopeful, invincible, confused, motivated and scared all in one day. With those feelings in mind, now imagine executing a long to-do list of complex and varied intellectual and physical tasks, carrying out chores that someone else determined for you, managing multiple online image accounts, analyzing and memorizing new information for several hours with few breaks, worrying everyone around you is noticing—as well as judging and tweeting—your every move, contemplating life and the world with new brain capacities, and thinking about your identity and your potential career path all in one day.

Does this roller-coaster description match your experience as an adolescent? Teenagers today (I say "teenagers" but the broader stage of adolescence is from around age 10 into early 20's) are growing up in a technology-infused day and age, with an ADHD culture, in which everything imaginable is accessible instantly at the click of a button. Intense and quickly changing moods and emotions, complicated relationships, and a laundry list of academic and extracurricular commitments are familiar to multiple generations; the online world

Greetings

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Rick Hanson, PhD edits the *Bulletin.* Michelle Keane is its managing editor, and it's designed and laid out by Laurel Hanson.

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just adds a layer of complexity to things. Throughout adolescence, change, challenges, transformation, and transitions are the norm.

In this article I will discuss straightforward neuroscience lessons as well as mindfulness practices that I have found to be universally helpful for adolescents. Teaching teenagers about how the brain works empowers them with greater insight to the changes they are going through and the challenges they face. Providing teenagers with coping skills is incredibly important so that they can handle changes and face challenges with greater confidence. I've taught these tools in classrooms, assemblies, staff meetings, group therapy, family therapy, parent support groups, and individual therapy; they are broadly applicable. In the sections that follow, I will present the lessons and practices just as I would with teenagers, using language and examples that are catered towards their age-range.

Simple Neuroscience that Empowers Adolescents

I've witnessed some awesome "aha" moments as teens absorb these lessons and apply them to understanding their own behavior patterns. Because adolescents are still working on defining their identities, it can be very confusing to have emotional setbacks and figure out what part of that is "Who I am" versus just a bump in the road of their journey. They often come to therapy feeling broken, worrying that they will never be "normal," and assuming that their current problems are permanent ones. When they see a neurological context for their behaviors, and brain science that explains how they're feeling, it normalizes their experience and changes their sense of self for the better. The following lessons are a starting point, and there are so many great resources for teens (as well as parents, teachers, coaches) who wish to continue learning about the adolescent brain; I highly recommend Dan Siegel's book Brainstorm.

Lesson: Neurons that fire together, wire together

When I begin working with teenagers, one of the first things I do is draw a circular diagram with arrows going back and forth between three words: thoughts, feelings, and

behaviors. Basically, those three things are a packaged deal. For example, if we are feeling anxious about a test, we are prone to think things like "Oh no, I'm going to fail!" and we might behave in a way that makes that a self-fulfilling prophecy (like giving up on studying, or forgetting to check over our answers because we are so nervous). When we get caught up in a negative cycle of thoughts, feelings, and behaviors, there are often consequences (like doing poorly on the test in the above example), and those consequences can reinforce the negative cycle. When we repeat a cycle over and over, the thoughts, feelings, and behaviors can become almost automatic; the neural experience of that cycle gets hardwired. Our brains might learn that taking a test is a negative experience, so we automatically associate it with feelings of anxiety and thoughts of failure. Neuropathways are like shortcuts that tell our brain what thoughts, feelings, and behaviors are packaged together, based on past experiences.

Lesson: Fight-or-Flight Response

The most common lesson I offer teens is a brief explanation of the caveman brain or the amygdala, and the thinking brain or the pre-frontal cortex. A visual drawing or printout of a brain is helpful here. When our brain detects a potential threat, our amygdala tells us to go into "fight or flight" mode to protect ourselves. To do so, it sends the signal out for a

series of physical responses including sweating, releasing adrenaline, sending blood to our major muscle groups, speeding up our heart rate, and increasing muscle tension – these were all really useful physical responses for the cavemen when he needed to run like heck or fight for his life if there was a predator lurking nearby. Those same responses make us fidget, shake, avoid situations, get stomach aches, and develop tension in our neck and shoulders, not to mention that the adrenaline can keep us up at night. When our caveman brain is over-reacting chronically, the result can be exhaustion, a weakened immune system, and the distress that comes with feeling stressed 24/7.

Nowadays, we don't have too many predators lurking in the bushes, and we don't usually have to fight or flee to make sure we live to see tomorrow. However, our brains are still trained to be on the lookout for threats so that we can survive, and many different things can be interpreted as threatening: tests, arguments, plane rides, social gatherings, public speaking, sports competitions, new or unpredictable situations, and so on. Most teens can identify threats or triggers, and most can identify whether their pattern is to fight or flee.

Lesson: Neuroplasticity

After we've discussed basics about how the brain works, kids will often ask some variation of, "So basically I'm stuck with a caveman brain that thinks a math test is literally going to kill me?" What I tell them is that the greatest news in the field of neuroscience in recent years is the idea of neuroplasticity: your brain can change! Just like with muscles, if you practice flexing you build up new capacities. If you leave certain muscle groups alone, they weaken. In therapy, we work on diminishing the strength of the fight or flight response by flexing it less, and building the strength of the relaxation response by flexing it more. It is a massive relief for teenagers to know that their problems are not their identity; their problems are part of a pattern, and their patterns are changeable with practice.

Mindfulness Practices that Help Teens

Most teenagers spend a lot of time on their phones and computers, and these devices can actually be great metaphors for how the brain and the mind work. The desktop is more like the "mind" while anything running in the background that you cannot see is representative of the "brain." When I talk to teens about being mindful, we're talking about single-mindedness and being able to focus on just one thing in the current moment. It is the ability to

truly be present and aware of where the mind is. I describe mindfulness as having just one program open on the computer desktop, or just one app open on the phone, and no programs or apps running in the background.

Phone and laptop batteries drain and the devices perform more slowly when there are multiple programs running at a time. Sometimes we don't even remember those programs are running, we just forgot to close them, and they continue on in the background sucking up battery. Sometimes we don't realize this until it's too late- the battery is dead or we're getting angry that a webpage is taking more than five seconds to load (unacceptable!). Being proactive helps: being aware of battery life and of how things are running, checking to see what programs are running in the background, closing them when they aren't being used, keeping only one or two programs running at once.

We're a lot like our technology. When we do too many things at once or have a lot of thoughts running through our heads, even if it's in the back of our mind and not what we're focused on, it drains our energy and hinders our performance. When we can clear our minds and focus our attention, we achieve things to the best of our ability. This gives us a greater sense of accomplishment and helps us feel more peaceful. But since our brains are

not always as user-friendly as our iphones, the proactive maintenance and updating requires practice. The following practices are easy and helpful. I encourage finding practices that feel good and using them frequently- for some teenagers, we'll read out loud practices from Rick Hanson's Just One Thing, others like to use guided meditation app's on the iphone- the important thing is to find what works and stick with it.

Practice: Checking in

For younger adolescents, I have used the "feelings thermometer" as a visual cue for checking in on what they're feeling. This is a simple print-out of a thermometer, on which kids will mark the middle range of their good feelings as well as where other feelings both high and low might fall. At the top I often see feelings like anger, anxiety, and jealousy. In the middle range are feelings like calm, happy, peaceful. And lower down are loneliness, sadness, and shame. After doing this activity we discuss "warm up" and "cool down" strategies that help with getting back to feeling good. For example, if I'm low on my thermometer feeling lonely I might "warm up" by asking a friend for a hug; if I'm high up on the thermometer feeling angry, I might take a walk outside to "cool down."

For older adolescents who are more aware of how they are feeling, I encourage them to use a "rating scale" to gauge how much of a target feeling they are experiencing. We might rank anger, anxiety, or sadness on a scale from 0 to 10. We talk about what it feels like to be in the comfortable 0 – 3 range, what thoughts and feelings distinguish the slightly elevated 4 – 7 range, and what it feels like (and what some consequences might be) at the top in the overwhelming 8 – 10 range. If we check in and rate how we're feeling a couple times a day, we give ourselves the chance to notice when we feel good, and also notice when we are slightly elevated and need to use some coping skills before we get overwhelmed. Triggers are less likely to get us all the way up to a 10 and result in undesired consequences if we can check in and do more to keep ourselves in the comfortable range of our scale on a regular basis.

Practice: Taking a break

To teach this practice I hold up a cup of water, and say that the cup is half-full, but this is not a lesson on optimism. If I hold the cup for a minute, I can handle holding a half-filled cup of water. But over time, my arm might start to shake a little bit. Depending on how many pushups I've been doing lately, there is going to be a breaking point where either

my arm buckles and I drop the cup or I purposely set it down to rest my arm. I'm in better shape to pick it up again if I chose to set it down rather than getting to the point where my arm buckled, which could have hurt my arm and made a mess.

Checking in tells us how our arm is feeling. Taking a break is the important practice of setting the cup down before our arm gives out. This means deciding to be done with homework at a certain time at night because rest is more important than a few more math problems, choosing something relaxing to do for yourself on a regular basis like taking a bubble bath or walking around the neighborhood, or staying home on a Saturday night when you're tired to just chill out. This might mean being mindful of when we're getting to angry and taking a break from a conversation until we're calm, or being mindful when we're grumpy due to hunger and making sure to pause our work to eat a snack. Putting down the cup feels good and helps you gather the strength you need to meet the challenges you're facing. It's not avoiding; it's recharging.

Practice: Mindful breathing

If we're feeling triggered, taking a few deep breaths in a slow and mindful manner can keep our body calm and counter the caveman brain's attempts to get us physically keyed up for fight or flight. Physically, it gives us more oxygen and slows our heart rate down so that we can feel more comfortable. It also helps clear our mind when our thoughts are cluttered or stuck on something negative, by drawing our attention to something physical and soothing. This practice can be done anywhere at any time and so it is a very useful one to know.

There are many different breathing exercises, and the one that seems to be the most helpful is 4-7-8 breathing. This means taking a deep breath in through the nostrils for a count of four, holding the breath in for a count of seven, and slowing releasing the breath as if you are blowing through a straw for a count of eight. This is supposed to be relaxing and comforting- so it's okay to speed up or slow down the counting as needed, just keep the ratio. To enhance a feeling of calmness, place one hand on the chest and one hand on the belly and feel the rise and fall with each breath; slight pressure on the chest can help us relax even more (it's like giving ourselves a hug!). The counting helps us focus on the breath and slow it down.

Practice: Peaceful place

Just as a trigger can automatically elicit negative feelings (saying the word "exam" can immediately make us feel tense), a place that we love can automatically arouse positive feelings (when I say "beach" I can't help but smile!). Ideally, a teenager can pick their peaceful place based on somewhere they have been and enjoy going, a place that brings back positive memories and feelings of peace, calm, and happiness. In some circumstances, it might be hard to identify a place that has felt safe or peaceful; in this case, an imaginary place works

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fine too.

Start with a few cues to relax the body: close your eyes, relax your muscles, and take a few deep breaths. Allow your mind to quiet down, and think of a message that will tell your brain that it is time to relax, such as "I'm peaceful now." Next, picture yourself in your peaceful place. Visit with all of your senses. Look to your left and right, look above and below you. If you're outside, notice the color of the sky and look to see if there are clouds or sunshine. Listen for the sound of the breeze, the water, birds singing, or people talking in the distance. Feel the ground beneath you, feel the sun on your skin, feel the breeze blowing gently. Breathe in - if you're at the beach, imagine the taste of the salty ocean air. Imagine the scents around you and let these sensations bring you more fully into being present in that place. Stay there and relax, knowing that in this moment, you are safe and peaceful. If other thoughts intrude, just notice them and allow them to pass; picture them on a cloud that passes by. See if you can stay there for several minutes before opening your eyes again. It might take practice to do this meditation for longer amounts of time. If you have a physical memento from the peaceful place you like to meditate about, it can help to hold it or look at it to help bring your mind to the place.

Practice: Noticing positives

When the going gets tough, the tough get going- but the majority just get tough on themselves. We learned with the caveman brain lesson that for our survival, our brains are on the lookout for what might be wrong or threatening. The flip-side of that is that we don't really focus much on what is going well because that doesn't serve an evolutionary purpose. Just as negative experiences hardwire negative thought-feeling-behavior cycles over time, positive experiences can hardwire positive thought-feeling-behavior cycles over time. The more we notice and reinforce positive experiences, we hardwire positive cycles and can feel better in general over time.

If I ask a teenager to think back to a negative event that happened in this past week, they can probably vividly describe what went on, the succession of negative thoughts and emotions that followed, and how it physically felt for them. For example, a negative event could be that a friend posted a picture on Instagram in which she is hanging out with several other friends at the mall. Negative thoughts might follow such as "They are so mean for not inviting me," or "Nobody likes me," or "I'm such a loser," along with negative sensations like a knot in the stomach, and feeling sad, lonely or jealous. The memory hurts. But if we think back to something positive that happened in the past week, is the memory as vivid? Did we let it sink in to our sense of self as much as we did with a negative experience?

To notice positive experiences and let them sink in takes practice, but over time it becomes more natural and automatic. To start, practice noticing small positives throughout the day. Teachers or counselors can challenge teenagers with homework to notice five positives each day and write them in a list; parents can reinforce this by asking at dinner each night about five positives from that day. Start with three if five is too difficult. I suggest that teens keep a running list of positives as a "note" on their iphone, because it also feels good to look at the list growing and see all the good stuff building up.

Beyond just noting what was positive, describe it: What feelings did you have when it happened? How did you feel physically? What did you think to yourself or about yourself? Did you smile? Wish for yourself the good feelings, the sense of happiness or accomplishment, the rewards or benefits, that you might wish for a friend when something positive happens for them. For someone who has difficulty acknowledging positives, start with small things: notice if someone smiled at you, notice that the air feels nice today as you walk outside, notice the good sensations of taking a nice deep breath. The positives are always there, even if a dark mood makes them difficult to see; the more we notice them, the brighter things start to look.

I started this article with a roller-coaster, and I'll end with an iceberg. From the surface of the water, an iceberg might look huge; yet the portion that is exposed is really only the tip of the iceberg, while about 90% is underwater and out of sight. This is a nice visual representation for understanding that with people, we see just the surface level: behavior, appearances, facial expressions, words, gestures. There is a vast and complex internal world of thoughts, emotions, defense mechanisms, fears, dreams, needs, instincts. Looking beyond the surface is what gives us empathy for others, and compassion for ourselves. For teenagers, understanding how their brain works and how to mindfully be aware of, manage, and improve their internal experiences and outward behaviors, fosters greater attunement and happiness. When we are more connected with ourselves and with others, we truly feel better.

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Amanda Good is a Licensed Independent Clinical Social Worker in Washington, D.C. She has dedicated her professional career to helping adolescents and their families improve relationships and lead healthier and more fulfilling lives. Amanda has worked as a counselor in several private and special education schools, and she now works full-time in private practice where she specializes in treating anxiety, mood disorders, and ADHD. She also leads therapy groups and gives presentations for students and professionals on a variety of topics related to adolescent social and emotional development and treatment. In all of her work, Amanda is interested in empowering people with practical knowledge about neuroscience and mindfulness skills that facilitate greater attunement both internally and inter-personally. To learn more about Amanda›s work, visit www.allisonsibleyassociates.com.

Your Best Brain

A Benefit Workshop for the Wellspring Institute
Sunday, October 26, 2014

Your brain is the bottom-line for how you feel and act:

change your brain, and you change your life.

In this four-hour workshop on Sunday, October 26, 2014, in San Rafael, CA, we'll cover ten great ways to change your brain for the better – for more joy, more fulfilling relationships, and more peace of mind and heart.

Grounded in brain science, you'll learn practical, research-based ways to:

• Feed your brain with the right foods and supplements
• Calm down the amygdala for less anxiety and other negative emotions
• Energize the neural networks of compassion, empathy, and love
• Boost acetylcholine to light up the circuits of learning and memory
• Tap into your brain's natural core of happiness
• Increase levels of key neurotransmitters like serotonin and dopamine without medication – for improved mood, attention, and motivation
• And much, much more

This will be fun, down-to-earth, and super-useful! The presenters are Rick Hanson, Ph.D., New York Times bestselling author of *Hardwiring Happiness*, *Buddha's Brain*, Just *One Thing*, and *Mother Nurture*, and Jan Hanson, M.S., L.Ac., who wrote *Nutritional Neurochemistry* in *Buddha's Brain.*

This workshop will benefit the Wellspring Institute for Neuroscience and Contemplative Wisdom, which publishes the *Wise Brain Bulletin*, offers all the great resources at WiseBrain.org, and hosts the Your Skillful Means website (methods for psychological and spiritual growth). Registration is $50.

It's happening on Sunday, October 26, 9:30 am – 1:30 pm in San Rafael, CA at the Marin Civic Center, Showcase Theatre, 10 Avenue of the Flags, San Rafael CA 94903.

Register online at http://tickets.marincenter.org/eventperformances.asp?evt=68. And please share this with others who may be interested!

Coyote's Path

Early morning Tennessee Valley, Marin County California

I ran up the trail from the beach, damp fog parted just ahead of me. The trail sketched through dead grass, thistles (still thorny in winter) and empty lupine.
Bay laurels chattered against a salty wind; fog tumbled. The stream clicked over rock and roots, fumbling to the beach below.
Upon opening a turn in the trail I saw I was following a coyote, running along the same trail ahead of me. We ran together, distant by 30 precious yards.
I know coyotes well. I lived in the desert near Joshua Tree for awhile.
I've drifted to sleep with coyote yapps and yipps, and howling vowels.
They have awakened me:
First few times I heard death
The Doppler death scream of a rabbit, who just lived out its destiny.

The running coyote stopped, still facing away from me.
I stopped.
She stood still.
I stood still.
Unnaturally still, as rooted as a fig tree.
She turned slowly, listening
And seeing me.
Her silver and tan fur incandescent
Each water molecule a Fresnel lens scattering foggy light.

As I watched this canine chimera:
The coyote's ears alerted.
She leapt instantly from still to racing.
From running to hunting speed down the path towards me.

Serene face, silver eyes, jaws slightly parted, beckoning teeth
Then
Larger serene face, brilliant black eyes, four excellent canines

Buddha awoke under the Bodhi tree.
Those few moments, as the coyote hunted me: I had one serious awakening.
An awakening wrapped in a foggy instant.

The laurels' chattering stopped. The stream halted her fumbling.
Grasping fell off me like lover's clothing. This speedy world went back or ahead in time.
Stillness arose: I can't outrun a creature that runs for a living.

I entered a portal to detachment and focus: complete Mindfulness: the creature, me, Tennessee Valley and the planet: every foggy morning that had ever been: all here, all now.
I stopped time to now.
In a few seconds 29 yards of the distance between us two beautiful creatures did not exist.
I heard the chant of paws.
Then she was flying: all four paws off the ground: a canine dakini, ethereal messenger!
We are both Awakened Ones!

Inches in front of me, she flew to my right, sky-dancing above the chaparral, following a rabbit who futilely ran.

The portal closed…laurels chattered again; the stream resumed the Morse code of her journey.
Time came back, precious instant by precious instant:
I leapt from Stillness to running:
My serene face, my silver eyes, my jaws slightly parted:
My smile!
I was running up the path towards running up The Path.

Delusion and Non-Delusion

According to Buddhist psychology genuine mental health is a natural outcome of an un-deluded mind. This non-delusion is awakened presence—an effortlessly embodied, fearlessly accurate reception of and interaction with the way things truly are.

While the etiology of delusion has long been of interest to Western psychology, the causes of non-delusion have largely been ignored. The DSM-5 includes a revised definition of delusion; one that blurs the distinction between delusions and internally generated irrational beliefs about self and world:

> Delusions are fixed beliefs that are not amenable to change in light of conflicting evidence… The distinction between a delusion and a strongly held idea is sometimes difficult to make and depends in part on the degree of conviction with which the belief is held despite clear or reasonable contradictory evidence regarding its veracity. (APA, 2013)

Hence, delusions and delusional beliefs are no longer considered uniquely pathological.

Interestingly, this updated view parallels the traditional Buddhist psychological definition of delusion: Fixed beliefs and persistent perceptual inaccuracies arising from conceptual elaboration—automatic or intentional—about self and world. It might be helpful to keep this description in mind as we go forward.

Neuroscience has greatly expanded our understanding of the mechanics of delusions. Apparently the brain maintains an internal set of 'prior beliefs' based largely upon past experience which attitudinally inform propositions about self and world. Though prior beliefs display a certain level of fixity they are amendable to new experience.

Sensory and affective delusions appear to arise from impairments in the brain's belief evaluation system, specifically perceptual and cognitional deficits in hypothesis evaluation or predictive coding (Corlett, 2010, Coltheart, 2010). At work is an anomalous process of

connecting salience cues, prediction errors and irrelevant environmental cues, which cause inappropriate updating of internal belief modeling (Kapur, 2003). These findings show how faulty prior inferences undermine the mind's capacity to accurately predict the nature and meaning of succeeding experiences.

Additionally, when faced with highly uncertain, unusual or inexplicable events, irrational beliefs and/or psychotic delusions can provide relief in the form of comforting explanations (Whitson, 2008). These erroneous stamped-in memories become the scaffolding for new explanatory prior beliefs. "Delusions become the sufferer's new priors and are used to predict and explain future experiences," (Corlett, 2010). This may inform the intractability of irrational beliefs commonly found in chronic anxiety and depression.

Yet, intractable does not mean irreparable—particularly when it comes to the brain. Neural plasticity is a powerful partner in bringing about psychotherapeutic change, particularly for psychotherapeutic professionals (myself included) who offer awareness-based interventions that enhance psychoneural transformation. I would like to offer a case study to clearly illustrate how a patient can learn to recognize delusion and rest in the liberative awareness of non-delusion.

John was referred to me at the end of his second year of intensive cognitive-behavioral therapy. He had just completed several sessions with a mindfulness-based psychotherapist and was actively using several mindfulness apps; all of which had only increased his dependence upon antidotes. Despite his heroic efforts, John remained mired in delusion; tormented by persisting perceptual inaccuracies that left him feeling frustrated and hopeless, "For years after a traumatic cancer scare, I lived with anxiety and panic on a daily basis. Any physical pain or bodily sensation told me (incorrectly) I was in trouble, life-threatening trouble. I would worry about worrying! Though I've done two years of CBT, when I am emotionally sunk with terror I still can't believe my own common sense thoughts about what I am experiencing."

The suffering of perceptual inaccuracy

Though evolutionarily useful, the brain's penchant for prediction distorts and/or impedes accurate moment-to-moment reception of sensory information. "Perception is substantially constructive. That is, our expectancies (based on previous experience) contribute to what we currently perceive by sculpting sensory inputs," (Corlett, 2010).

That humans don't readily recognize the constructed nature of self and world and continually misapprehend reality is for Buddhist psychology, the underlying cause of delusion (*avidya*)—primordial ignorance of the actuality of phenomenal experience. The Buddha tirelessly taught the constructed nature of perceiver (not-self) and perceived (interdependent co-arising). His teachings on Dependent Origination (*pratitya-samutpada*) and conditioned mind (*samskara-khanda*)[1] form a primary psychological description of the suffering caused by reality misapprehension; a fundamental delusion that underlies much of the suffering mental health professionals work with every day.

The Buddha's unrelenting efforts to comprehend the mind's topology and function may have made him the world's first cognitive scientist. Using first-person contemplative research methods, the Buddha identified the sankhras (dispositional habits and drives) as both cause and result of conditioned perceptual inaccuracy. He conjectured that even the most basic prior beliefs are tainted by imperfect perception and spawn higher and higher orders of perceptual automaticity and conceptual conditioning. Modern neuroscience corroborates that insight, "Once delusions are formed, future prediction errors engage

1 A full explication of these terms can be found in my book *Effortless Mindfulness*

reactivation, reconsolidation and strengthening of the delusion; rendering it impervious to contradictory evidence; each time a delusion is deployed, it is reinforced further," (Corlett 2009).

The delusion of self-grasping

Impaired self-connectedness is a feature of psychosis and must be distinguished from the role other forms of self-grasping play in the persistence of irrational beliefs. Research has shown that schizophrenic disorders involve a disturbance of ipseity, our basic sense of organismic selfhood (Nelson, 2012). Most of us take this 'minimal I' subjectivity for granted. For instance, right now you are implicitly experiencing an 'I' reading this article. Schizophrenic sufferers exhibit heightened awareness of normally implicit information and a diminished sense of subjective awareness, both of which contribute seeming veracity to delusional mentation (Sass L.A., 2003). Such individuals would obviously benefit from a sustained conceptual and perceptual sense of core self. Lest there be any confusion, the Buddhist psychological theory of not-self (*anatman*) asserts the necessity of 'minimal I'

subjectivity.

As stated above, internal expectations alter the organs of perception. Inaccurate expectations distort real-time perception and obscure the constructed nature of self and world; creating in its place a conceptual belief-model of a solid enduring narrative self existing separately from all external phenomena, including other selves. This gives rise to the suffering associated with mistaking a shifting inner landscape of thoughts and emotions for a substantive self-entity.

For example, "I am angry" is an inaccurate interpretation of the presence of angry thoughts and feelings. This is not just a matter of semantics. An 'angry I' or an 'anxious I' or a 'depressed I' owns these states as a 'true' expression of a solid enduring self. Since no solid self can be found to exist anywhere in the mind or brain, distressful states of mind and the self itself are nothing more than an ever-shifting collection of internal phenomena lacking any inherent permanence or solidity. Buddhist psychology views this ego driven, automatic designating of permanence and ownership as a pervasive, primordial, faulty prior belief—one that firmly grips us in the delusion of a suffering self and obscures the mind's innate capacity to recognize irrational and/or delusional conceptualizations.

At the start of our second session John was visibly distressed and fully gripped in a habituated narrative of a suffering self, "I spiraled down pretty deep last night. All day today my stomach has been eating me up. It's the same low-grade 'pit in the stomach' sensation that consumes me pretty

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.

much everyday. I know it comes from my anxiety but I get even more depressed and anxious because no matter how I think about it or distract myself from it, the pain won't go away."

To avert or ameliorate the arising of adventitious mental and emotional suffering, Buddhist psychology prescribes embodied awareness and accurate reception of the constructed nature of internal and external phenomena. Though he didn't know it yet, this was the path to relief that John had been seeking.

Experiential focus and narrative focus

Buddhist psychology and modern neuroscience agree on two mechanisms of internal delusion-making which occur primarily in response to distressful sensations, thoughts and emotions: (1) negative self-narrative and (2) associative neural-linking to past distress. These mental activities give rise to afflictive mind states (*klesas*) that catalyze irrational beliefs and obstruct the capacity to remain present with actual phenomena.

Narrative focus (NF)—particularly rumination and worry—reduces attention to temporally present incoming sensory objects. This is due to the recruitment of midline prefrontal cortices, left hemisphere language areas and the hippocampus (Farb, 2012). These brain areas link subjective experiences over time, supporting a form of self-awareness that feels like an enduring autobiographical experiencer.

Imaging studies of depressed patients' show self-referential processing of negative stimuli activates the medial prefrontal (mPFC), posterior cingulate (PCC), and anterior cingulate (ACC) cortices with levels of activation correlating to depressive symptom severity (Yoshimura, 2010). Other research highlights the PCC as the source of the awful feeling of clenching that accompanies negative self-narratives (Brewer J. A., 2013).

Experiential focus (EF) is a deliberate opening to the natural flow of perceptual stimuli—body sensations, thoughts, and emotions—during which self-referencing is momentary and

contextually integrated within an ever-shifting continuum of experience. EF promotes a reflexive awareness that naturally shifts mentation away from self-narratives about experience. This happens through deactivation of the posterior cingulate cortex and the prefrontal cortices. Experiential focus defuses emotional reactivity and increases cognitive control, visceral responses and attention (Brewer J. A., 2013) (Farb, 2012) (Goldin, 2009).

Experiential attending to thoughts or emotions gives rise to a metacognitive awareness that causes decentering—described as "the capacity to take a present-focused, nonjudgmental stance in regard to thoughts and feelings," (Teasdale, 2002). Decentering leads to reperceiving emotions and thoughts as 'object' rather than 'subject', i.e., "happiness feels like this", instead of "I am happy" (Fresco, 2007). Experiential focus opens us to the immediacy of phenomena from the perspective of an embodied mind, vividly present in subjectless experience. The liberation that accompanies this fundamental shift in perception is the ultimate goal of Buddhist psychology.

Recently, John felt compelled to write about his journey with this work and graciously allowed me to share some of his experiences in this article.

"During our second session Lisa listened to my story about my stomach problems she observed me, but hardly asked any questions. It felt odd—like she knew something I didn't know about myself. Then she explained what had been happening to me and not in a manner I'd heard before, but in a loose scientific way. She told me the mind and body are connected and explained how mindful attending to somatic responses could help. I had a pretty good background in CBT but this was an entirely different approach. Lisa opened my mind to a mind-body collaboration that was new to me. I began to understand a lot more about the vicious cycle of suffering that had plagued me for so long."

When we open to awareness with genuine curiosity about phenomena, being with painful stimuli is possible. John continued:

"Lisa suggested the 'pit in my stomach' might be a reaction or result of what I already knew was irrational thinking, but more importantly she explained to me that physical discomfort was merely a bodily sensation that everyone feels from time to time. She further suggested that its source didn't really matter. Then Lisa taught me how to gently turn my awareness

to the actual sensations in my stomach. At first it was weird. I was so used to knowing my body through the stories my mind told me about it, not the actual experience of it. After awhile I noticed I could feel discomfort and soften into uncomfortable sensations. It was like inviting the 'pit' into my life as a friend, not an ENEMY. I calmed down in the presence of sensation and realized it actually felt okay. My body was okay which meant I must be okay. The irrational thoughts and emotions subsided and I felt some actual relief. That day was the beginning of the rest of my life. Awareness of mind and body is a new paradigm. I started using these techniques in my day-to-day life and amazingly the panic episodes and depressive terrors lessened in frequency and intensity. I no longer automatically believe the stories my mind tells me about myself. Now I seek out actual experience and trust in that."

Cultivating non-delusion

"In the end what we learn on the path is there is only a dance between delusion and non-delusion. Recognizing delusion is the true non-delusion," (Thubten, 2013). Buddhist psychology's first-person methods for cutting through delusion stimulate direct recognition of phenomenon and accurate inquiry into false internal representations. These tools can be easily delivered in psychotherapy and readily applied in daily life. A complete description of this process is offered in my book, *Effortless Mindfulness: Genuine Mental Health Through Awakened Presence*. Listed below are some general principles for cultivating embodied awareness and gaining liberative insights into the actuality of self and world.

1) **Be curious about the nature of suffering**

"I don't want to be curious about my suffering. I know I hate it. That is why I am here in your office!" When faced with such pleas for relief I tell patients as long as aversion to suffering overwhelms direct comprehension of the causes and constituents of suffering, relief will not come. While it is true that known narratives offer some sufferers comfort and security, most of that known story is highly inaccurate. We cannot open to and rest in the actuality of distressful experience with a mind fixated upon the hope for relief or the fear of continued distress. This is a basic tenet of Buddhist psychology. Compassionately pointing out the automaticity of

approach/avoidance reactivity can help incline even the most resistant person to seek out the actual causes of suffering. So though it may be human to struggle with uncertainty and mistake adventitious suffering for actual pain, self-liberation is eminently achievable.

2) **Explore the actuality of experience**

Willingness and curiosity are the building blocks of exploration and awareness is the ultimate container and supreme vehicle for knowing things in their actuality. Embodied awareness is the definitive refuge for a deluded mind-heart. Sensory consciousnesses (sound, sight, taste, touch, smell) provide moment-to-moment refuge for a mentally agitated psychophysical system. A disembodied mind, lost in its own conceptualizations and distorted narratives cannot benefit from the body's homeostatic wisdom. As John reported, when one turns attention to sensory experience or external objects or even mental contents, and rests awareness easily yet firmly in these phenomena, the actuality of things is revealed, distorted mentation dissolves quite naturally and physical agitation decreases.

3) **Recognize the veracity of sensory awareness**

John reality tested his delusional narratives of unbearable, unending stomach pain by opening to the actual sensations in his stomach. What he found was non-delusion: a mere flow of vibration, movement and 'butterflies'. As he attended to these phenomena with an embodied effortless awareness, the sensations in his stomach abated. Gone too were the fearful depressive thoughts and feelings. No need for cognitive reappraisal or alternative narratives. Actuality was the right medicine for cutting though John's delusions of self-suffering.

4) **Know the transparency of false beliefs and afflictive mentation**

As false prior beliefs and resultant afflictive thoughts and emotions fall away, their true nature—impermanent, transparent, mental phenomena—becomes apparent. This can be a shocking experience for a long-suffering psyche. The natural dissolution of something so feared, so loathed, so gripping seems incomprehensible. But actuality is like this: thoughts arise and pass away; body sensations shift and release naturally; emotions arise, exist and pass of their own accord. In the groundless ground of 'just knowing', self-grasping has nothing to hold on to.

5) **Rest in the clarity of awareness**

The inner freedom of resting in the mereness of phenomena—no effort to make anything happen or not happen—brings a clarity and openness, which is simultaneously ordinary and extraordinary. Awakened presence is 'just knowing', 'just feeling', 'just being with'. Awareness itself. I asked John D. Dunne, Tibetan Buddhist scholar and associate professor of religion at Emory University, to explain what is meant by 'awareness itself', "One metaphor is luminosity or the capacity to present content. Every moment of consciousness has this capacity. That is knowingness… one is not trying to discern objects or abandon or get something. One is just allowing the mind's natural capacity to know. When you are aware of objects, awareness is not a searchlight that points at things. Awareness is more like a fully lit room. All aspects of the knowing process (thoughts, feelings, objects) are all

in that room, being presented at once," (2013). All true insight about the causes of suffering and non-suffering spring forth from this rich soil of awareness. The more one chooses awareness, the greater intimacy one has with the unimpeded, boundless nature of the mind's capacity to know.

6) **Gain insight into self and world and act skillfully from within awareness**

Purposefully choosing awareness spontaneously potentiates the psyche's ability to recognize narrative delusions and easily distinguish them from non-delusion. That means we will realize many painful truths about how we cause or maintain inner and outer suffering; how we cling to unwarranted blame and hatred toward others, life's circumstances and ourselves; how we become lost in delusional prior beliefs and self-grasping. Standing in the truth of uncomfortable insights takes courage. Acting upon these insights requires fearlessness and a dedication to developing wisdom and skillfulness.

Buddhist psychology is replete with profound technologies for developing wisdom and virtue, yet few are offered to patients. Most clinical mindfulness interventions focus primarily on symptom reduction. But less pain does not necessarily equal more wisdom. Blatantly absent from clinical mindfulness is an understanding of not-self (*anatman*) and training in skillful means (*upaya*)—the diligent cultivation of wisdom, selflessness, generosity, patience, kindness, love, perseverance, zeal, and equanimity. I believe this knowledge is critical for effective delivery of clinical mindfulness.

More importantly these instructions are an integral part of bodhicitta (awakening for the benefit of all other beings) Buddhist psychology's prescription for empowering individuals to become a light in a world of darkness. Much of the incentive to write Effortless Mindfulness came from a desire to authentically explicate the full range of Buddhist psychological theory and practices for achieving the genuine mental health of awakening; something sorely missing from the literature on clinical mindfulness.

Ultimately, this work boils down to two primary processes. 1) Help patients gain direct insight into the actuality of self and world by teaching them to rest effortlessly in awareness. 2) Offer effective tools for acting skillfully from within the non-delusion of awakened presence and encourage sustained compassionate engagement in the relief of suffering wherever it is found.

Longchen Rabjam, the illustrious 14th century Tibetan Buddhist Dzogchen yogi and scholar said it best, "Wherever I go I am always arriving at the truth; wherever I reside I am always residing in the truth," (In Kornfield 2009). That truth is non-delusion—the clear comprehending of the myriad ways in which we create inner and outer suffering. Arriving at and residing in the genuine mental health of non-delusion is only possible when we choose to live skillfully in awareness.

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Fare Well

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