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Navigating Life Using the Hidden Intelligence of Our Emotional Brain

Excerpted and adapted from the multimedia course *WHAT'S REALLY GOING ON HERE? How to Navigate Life Using the Hidden Intelligence of Our Emotional Brain* by Robin Ticic, Elise Kushner, and Bruce Ecker (2015), with permission of the Coherence Psychology Institute.

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What kind of a world is this that we live in? Is it a friendly place? Or a scary place? How do I win people's love and attention? By obeying them? Or by getting good grades? Or by getting kicked out of school, or fired from my job? Or by being funny and clever? Do I have the right to say "no" to an authority figure? What's my purpose in life?

Beliefs about such basic questions concerning the way the world works are as many and varied as the people holding those beliefs. And much of the time, these convictions are largely unconscious, often developed early in life and through deep, emotional experiences.

If four-year-old Melanie asks her mother "Mommy, why don't you like Uncle Fred?" and her mother looks annoyed and abruptly changes the topic, or she asks her father "Why are you crying?" and her father says angrily, "I am *not* crying!" Melanie may learn a "truth"

about the world that talking to people about feelings is a bad thing and that *she herself* must be at fault for annoying her parents.

In these moments of learning what seem to be fundamental truths, Melanie is adapting to the world around her. Adapting to our environment is an inborn skill, necessary for survival.

We are always adapting, as individuals and as a society. For example, today's younger generation has *adapted* its communication strategies to the availability of new technologies. An unemployed person *adapts* to having less income. Our bodies *adapt* to increased usage by building more muscle. In the same way, our emotional self *adapts* by learning how the people and the world around us function.

And most of our adaptive learnings get formed and stored outside of our awareness, just as with Melanie. The stronger the emotion that Melanie is feeling as her memory circuits register a particular learning, the stronger and more urgent that learning will be in shaping her subsequent behavior, mood and thoughts. She will be influenced by this non-conscious learning later in life, without being aware of what is influencing her choices, actions and moods.

So people's behavior and feelings are governed largely by unconscious assumptions about the world—learnings that are outside of their awareness.

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 the design team at MPK Consulting.

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People's actions or reactions, based on their unconscious emotional learnings, may be highly satisfying, as when secure attachments in childhood have set up positive learnings that enable a person to have deep, meaningful relationships later in life.

But people also carry learnings that formed according to original patterns of distress, and such learnings maintain actions or reactions that can be problematic in some way.

Let's imagine Melanie as a teenager and in her first relationship with a boyfriend. She senses that he is unhappy about something, and she fears it may have something to do with her. But unconsciously she "knows" that asking him is not an option, because she learned in her childhood that *that* goes very badly. So, as distressing as it is to believe and feel that *she* is at fault somehow, her distress remains private and unspoken, and she doesn't take the risk of making him angry by asking what's really going on.

From the outside, such behavior patterns may appear "irrational." It would be easy to label Melanie as "insecure" or even "paranoid." But Melanie's choices have a deep, hidden sense outside of her awareness. She *doesn't even see them as choices.* It's simply "how it is."

On the surface, other people's behavior and actions may sometimes appear to us to be "irrational," "arbitrary," "maladaptive," or even "pathological." But remember that the underlying, unquestioned assumptions and out-of-awareness beliefs were originally formed with *adaptive* intent.

This ability to pick up cues quickly and adapt to the world around us has a fantastic logic all its own. It all makes sense in *some* way. Nevertheless, people do often want to make changes in their lives. They want to solve their problems; they want to grow and change. As much as Melanie's reactions make deep emotional sense based on what she learned about the world, she may some day wish for deep change in her relationships and in the way she interacts with people.

The science of emotional learning sends us a message that is twofold: *Deep, lasting change*

that allows people to transform long-standing, ingrained patterns is possible! And the deep, lasting change of behaviors and habits requires discovering the emotional learnings at the root of those patterns.

Until very recently, neuroscientists believed that emotional learnings—such as Melanie's knowledge that discussing feelings is bad—were stored *permanently* in our brains—meaning locked in with no key. They believed that if we learned something deeply in childhood, then we could never truly unlearn and eliminate it from our mind and memory. Neuroscientists were convinced that the best we could do was to learn new habits that override and suppress the old ones. This would mean that Melanie would need to practice hard at asserting herself and asking uncomfortable questions, even though her inner voices were screaming "no, no, no." Many people still hold these beliefs about the permanence of emotional learnings.

But recent neuroscience research shows how even the most stubborn of old, unquestioned assumptions and learnings can, in fact, be erased and replaced with completely new emotional learnings that, in the present, serve us better than the original ones. We now know that the brain not only has the ability to *create* such learnings; it also has the ability, under particular conditions, to *dissolve*—or *unlearn*—them.

This article provides a glimpse of the keys that help us to *unlock the emotional brain.*

Emotional Coherence

It is the ability to *understand* your most important people—yourself included—that makes deep, satisfying relationships possible. As we will see, the more we understand about our process of emotional learning, the deeper our understanding of people becomes.
The human brain is a remarkable organ that continues to change and learn our whole life long in response to our experiences. This ability of the brain to reorganize itself based on usage is called neuroplasticity.

Our brains are great for *cognitive* skills such as paying attention, memorizing facts, and analyzing patterns. But our brains do so much more: they have also been storing *emotional* knowledge for our whole lives. It is the *emotional* quality of experiences that our brains use for selecting *what* is important to learn.

And this process takes place largely outside of conscious awareness, in other words: implicitly. The emotional brain forms implicit constructs—particular units of learning—about *how the world causes* suffering or pleasure. These are a person's "emotional learnings," learnings that have an emotional component or quality to them. We refer to them as *implicit* emotional learnings.

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.

When we speak of the "emotional brain," we are referring to emotional functions that take place in the brain. There are several different physical regions of the brain involved in its emotion functions. The physical brain is extremely complex, with specialists studying its molecular structure, its synaptic structure, its network structure, its evolutionary history, and many other aspects. And knowledge about the relationship between the brain's physical structure and its functions is growing daily, but still holds many secrets.

So, when we use the term "emotional brain," think of the brain's ability to store deeply and firmly anything it experiences and learns with emotional intensity.

Although the emotional brain functions largely outside of awareness, it is constantly making sense of the world. Such meaning-making is a basic human need and motivation.

Five-year-old Peter is the youngest of the Miller family's three children. As a baby, he was alert and curious about everything, a real little detective. He experienced that when he made certain facial expressions (which we call smiling, but he didn't know that), he got a lot of loving attention, something he needed, and he learned well that this is "how the world is. If I smile, people love me." Peter experienced how excited and happy people became when he made verbal sounds like those he heard around him. He also learned that this is "how the world is. If I talk, people are happy with me." At the age of five, Peter smiles and talks a lot, and most adults perceive him as charming and happy. In fact, he wakes up early in the morning, bubbling over with talk.

How Peter behaves makes emotional sense based on his inner constructs, learned very early, about how the world is.

The Millers' next-door neighbors, the Smiths, also have a five-year-old son, Martin. Peter and Martin play together often. Martin also experimented widely with verbal sounds when he was a baby. What he experienced was that he got more love and acceptance when he was quiet than when he was loud. In fact, the louder he got, the more likely it was that he would be put in a room with the door closed and separated from the rest of the family. Martin learned and stored this as "how the world is: If I'm quiet, then people will love me and keep me together with them. If I'm loud, then I will be all alone." At the age of five, Martin is a quiet boy who is often afraid to speak up for his own needs. Instead, he often gets stomach aches when his needs remain unfulfilled.

How Martin behaves makes emotional sense based on his actual life experiences and his inner constructs, learned very early, about how the world is.

People are, of course, a complex mixture of nature and nurture, genetics plus environment. We don't mean to imply with these examples that Peter and Martin developed solely based on their families' reactions to their verbal experiments when they were babies. That's only one piece of the puzzle, and Peter and Martin were both born with their own personalities and predispositions. But their environments have shaped their deepest beliefs, convictions, and unquestioned assumptions, and this is the area we'll be digging into more deeply.

What people *do* makes complete *emotional* sense based on their constructs about "how the world *is*." This is the concept of *emotional coherence*. We form constructs that allow us to anticipate how our environment will behave so that we can adapt to it, to minimize our suffering and maximize our well-being. Our constructs have survival value. And such constructs are fully coherent, not illogical or arbitrary.

As we interact with others, we don't normally know what the constructs *are* that are generating people's behaviors, emotions, thoughts, and even bodily sensations. So such actions and reactions can easily *appear* irrational or self-defeating. And a person's emotional learnings—those unquestioned assumptions—can become hidden obstacles to success, satisfaction, fulfillment, or well-being, as we saw earlier in Melanie's inability to ask her boyfriend direct questions, and in Martin's stomach aches when he has an unmet need.

How can we access what's in the unconscious mind and *really* understand a person, though? That may sound complex—and it *is*, because we can only ever *approach* understanding another person completely. But when we become accustomed to thinking within a mindset of emotional coherence, when we practice remembering that a person's actions and reactions do make deep sense, it becomes a more straightforward concept and begins to feel simpler.

This framework of emotional coherence for understanding people is not only a rewarding, healthy way to approach our interactions. It's also an extremely effective route to lasting change in our own ingrained, limiting patterns.

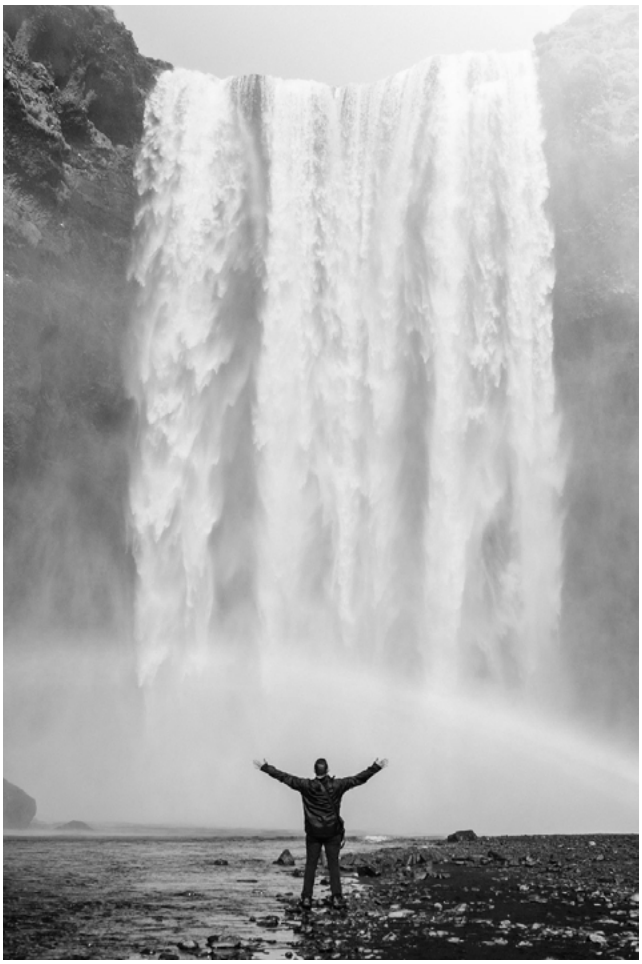
We refer to deep, lasting change as *transformational* change. Transformational change occurs at the deepest level—at the level of emotional learnings. That means: changes *at the root* of a person's behavior or feelings.

Emotional change is possible because our brain remains "plastic"—meaning capable of change—throughout our entire life. In fact, even many of our genetic "givens" are plastic too, because a person's environment and experiences play a significant role in modifying the actual expression of genes.

For example, two people may have an equal genetic predisposition to gain weight easily, but one grows up in a family with moderate eating habits and maintains a healthy weight, while the other learns a pattern of heavy overeating and has an ongoing struggle with weight gain.

In other words, the interplay of nature and nurture is turning out to be much more complex than was previously believed, as developments in the field of epigenetics are showing. This is good news, because it means we can have more influence on the *nurture* realm than we previously thought was possible.

Lasting, Liberating Shifts



When we listen acceptingly, aiming to *understand* the deeper coherence in what others are experiencing, we support people in discovering their own deep learnings that underlie their reactions, behaviors and feelings. Once those learnings are uncovered and brought into a person's conscious awareness, the person's brain is then in a position to modify them in favor of new learnings that are in better alignment with that person's greater well-being.

Jack Smith used to criticize his wife Ellen quite frequently for picking up and putting away everything—or what felt to *him* like everything—as soon as he laid it down somewhere. He started reading the weekly news magazine, left it on the coffee table, and came back to look for it a half-hour later, but it was gone. He took off his watch in the evening and left it next to the computer. When he looked for it the next morning, it wasn't there. This longstanding habit of Ellen's made him absolutely furious! He told her clearly how neurotic he found her behavior to be, but it didn't change. In fact, it seemed that the more he criticized her, the more pronounced that behavior became.

Then Jack learned about emotional coherence. The next time something he was using disappeared, in the midst of his frustration with Ellen he managed to hold on to his assumption of coherence and said, "I wish I understood what this need to tidy up is really about for you. That sure would help me live with it, at least."

Then came the dramatic year when Ellen was diagnosed with cancer. She fought bravely, took a year off from work, and has now been symptom-free for five years. The experience changed not only Ellen, but Jack as well, and also their relationship. Ellen decided to get to the bottom of certain personal dilemmas she had been struggling with for years. She remembered Jack's comments that her tidying must make sense in some way, and discovered that her need to maintain household order and tidiness had started around the time that she lost her mother at a young age. That behavior gave her a kind of support and structure in her life and even a sense of ongoing connection with her mother. It had deep emotional coherence. She explained this to Jack, and his view of her behavior as senseless evaporated, and so did his vexation over it.

So although Jack still doesn't *like* that habit of hers any better than he did before, he now accepts it as something very meaningful to Ellen that she needs. He no longer criticizes her for her behavior, and he has made some adjustments in where he puts his belongings. And interestingly, now that Ellen feels more accepted as she is, she has started asking herself whether she really needs to clean up after Jack. She has become somewhat more tolerant of *his* habits around the house, too.

Accepting a person is not the same as *liking* everything about that person or the person's behavior. Accepting a person means only knowing that the person is functioning in accordance with his or her emotional truths about how to have well-being. Perhaps you have acquaintances or colleagues whose behaviors you do not necessarily like, but whom you can accept and treat respectfully nonetheless.

Dire circumstances often push us into deeper inquiry and self-awareness—but we need not wait for a crisis. The ongoing search for emotional coherence in oneself and others is a rich and fascinating adventure! A healthy, respectful relationship—whether with oneself or with another person—is based on acceptance of a person as the individual he or she is, and the assumption of emotional coherence in each and every individual is extremely helpful in developing such acceptance.

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Bruce Ecker is Co-Director of the Coherence Psychology Institute, co-originator of Coherence Therapy and coauthor of *Unlocking the Emotional Brain: Eliminating Symptoms at Their Roots Using Memory Reconsolidation*, the *Coherence Therapy Practice Manual & Training Guide*, and *Depth Oriented Brief Therapy: How To Be Brief When You Were Trained To Be Deep and Vice Versa.* Clarifying how transformational change takes place is the central theme of Bruce Ecker's clinical career. Since 2006 he has driven the clinical field's recognition of memory reconsolidation as the core process of transformational change.

The Trip

We're all taking the same journey.

We pack daily suitcases when we are mindful of our experiences. Marcel Proust says, "The real voyage of discovery consists not in seeking new landscapes, but in having new eyes." Each night I unpack and review with gratitude the day's happenings.

I have suitcases for family and friends, and a large one for my lifetime.

Being seventy-five-years old is a surprise. I don't know how I got here. I was ten just yesterday, and, at that age, I had no desire or plan to be old. Now I smile at my ten-year-old self, tell her how young I feel, and that I'm happier than ever.

The seventies are my favorite decade. The angst of youth has resolved and seeing the end of the road encourages me to treasure every moment, and take time for meditation and silence. The miracle of being alive, of having a mind and senses, of sharing this journey with loved ones, brings immense gratitude and this poem.

I pack my suitcase,

each day adding more:

cloud blouses, sky skirts,

and a wind scarf carefully tucked

among pear trees and song sparrows.

Beside my daughter's buoyant spirit and her tears,

I position my son's pragmatism and heart.

I place Morning Man,

my rise and shine guy who adores me,

next to Evening Man who naps before bedtime.

I take Anne's listening, Coco's stories,

Joan's laugh and Eve's wonder.

At Costco, I toss in the little boy

sprawled on a couch,

and the old woman serving pita pieces.

And I'm in there at age four

bouncing on my parents' bed,

at twelve finding I could flirt,

at nineteen holding my baby,

at thirty-four launching a forty-year marriage.

I see myself in the mirror,

study the me I've become,

then peel my reflection,

fold it, lay it on top,

and close the suitcase.

(from *Marriage and Other Leaps of Faith.* 2015. Penciled In.)

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Mindfulness and Sustainability: A reflection on the relationship between mindfulness practice and sustainable behaviors.

A major difficulty in achieving lasting solutions in our broadly defined efforts towards establishing sustainable communities lies in the fact that many of these efforts are in a way like trying to "climb up a down escalator" [1]. Increasing population and demand continuously force advances from innovative material solutions back to the ground level.

By and large, attempts to address these impediments to sustainability have focused on ways to climb the escalator stairs more quickly and efficiently – that is, on technical solutions to population forces. However, efforts to slow down the rate of increase of the escalator itself are equally important. In this vein, this reflection considers whether large-scale, effective, and reliable consumer behavioral change could in part be encouraged through examining the links between sustainable behaviors and the present-moment quality of awareness which mindfulness practices can promote.

Background

Behavioral change models provide important explanations for the underlying reasons that cause people to engage in new behaviors or change old behaviors, and as such offer insight into the mechanisms affecting the speed of the 'down escalator'. Large-scale informational campaigns and community-based social marketing (CBSM) campaigns are two commonly used models for encouraging sustainable behavior changes [2].

From a certain perspective, these two models can be seen as complements to each other. Informational campaigns disseminate information and motivations for behavioral change on large scales. These campaigns reach many people but are often limited in effectiveness and reliability [2]. On the other hand, CBSM campaigns are designed for smaller groups and usually target very specific behaviors [2]. These approaches are more effective in encouraging behavioral change but the specificity of the campaign often precludes the generalization of the models to groups or behaviors outside of the target range.

Thus, it would appear that there is a trade-off between the size and effectiveness of interventions, such that larger-scale approaches reach more people but tend to be limited in effectiveness, whereas smaller-scale approaches reach fewer people but with more focused impact. Recent reports of increasing CO_2 emissions reaching nearly 400 ppm suggest that immediate action is required to prevent irreversible climate change [3]. As a society we may no longer have the luxury of allowing the oftentimes low effectiveness approaches of large-scale informational campaigns to slowly accumulate over time, nor the resources to design enough specific niche CBSM campaigns to reach a large enough number of consumers in an acceptable period of time to slow hyper-consumerism to a manageable degree.

CBSM developed as a response to large-scale marketing campaigns. CBSM theory is based around the concept that reasons for behavioral change are multi-dimensional and personal

[2]. As such, campaigns that are highly personalized more easily provide the attention-grabbing psychological and environmental cues necessary to address the underlying complexities in the motivations that influence behavior. In this way, CBSM more reliably encourages a group to consciously adopt a new behavior by allowing them more opportunities to become conscious of opportunities to behave in a particular way, as well as the needed motivation to actually adopt the new behavior.

Although it may seem obvious that we will not engage in behaviors unless we are consciously aware of an opportunity to do so, research has shown that oftentimes we are unaware of the cognitive processes that underlie our actions or decisions, and that our conscious attitudes are frequently poor predictors of behavior [4-7]. For example, one study asked over 500 people whether they felt an ethical responsibility for picking up litter. Although 98% of the interviewees responded that they did feel such an ethical obligation, only 2% of the interviewees picked up litter planted by the interviewer when they exited the interview [8]. Although we may have been told of the necessity of engaging in a specific behavior, and although we may see that such a behavior will affect us positively, we often simply 'miss' opportunities to practice certain behaviors for a variety of reasons, including cognitive busyness and the competing distractions of everyday life.

As an example, picture a friend hurrying into their place of work in the morning a few minutes late, a few times too many. As that friend finishes the last sips of their morning beverage and passes a receptacle as they enter their place of work, will they be aware of whether they throw the cup into the recycling or trash bin (or that they were discarding the cup at all)? Although some in this situation might recycle the cup, such actions unfold in an unconscious manner more often than intuition suggests, and may be dictated by habitual responses to relevant situational stimuli (e.g. the sight of a trash can). Moreover, research

suggests that simple shifts in attention (e.g. in household energy practices) could have a big effect on sustainability outcomes [9] if implemented at scale and over time. Although building a sustainable future is more multi-dimensional and complex than whether we choose to recycle or trash, I feel the above reflection invites an important question: How do we bring unconscious habits more into conscious awareness so that we may more easily recognize and consciously engage in opportunities for sustainable behavior as they arise?

Relationship between Mindfulness Practice and Sustainable Behavior

I suggest reflecting on the notion that both the cues needed to recognize opportunities for sustainable behavior, as well as the motivations needed to act upon these opportunities, can be enhanced and communicated in a general way by developing our degree of 'mindful' attention as consumers.

Mindfulness practices can be thought of as practices that strengthen a latent capacity for a present-moment quality of attention that promotes a more conscious awareness of our thought processes, behaviors, and environments. A large body of research has clearly demonstrated the psychological [10-13], sociological [14-16], neurological [17-22], and physiological benefits of mindfulness training [17,23].

The well-documented psychological, physiological, and sociological benefits of mindfulness training appear likely to correlate with underlying dimensions of pro-environmental beliefs and actions (e.g. increased patience, reduced feelings of 'wanting'). However, researchers have yet to systematically explore the relationship between mindfulness training and sustainable behavior. I suggest that such a relationship would provide a double dividend; Not only would an increased sense of personal well-being develop naturally from mindfulness practice, but sustainable behavior would also be promoted. This would serve as a positive feedback loop as pro-social behavior is known to promote well-being [1].

Moreover, because these practices develop a quality of attention that can exist independently of a specific behavior or environment, research suggests that these practices might offer the ability to not only affect large groups of individuals, but also to influence wide ranges of behaviors [24]. Indeed, the recent establishment of centers of research devoted to mindfulness at prominent universities (including Berkeley, Yale, Brown,

Harvard, UW-Madison), underscores that researchers are recognizing just how powerful mindfulness practices can be. Furthermore, the application of these practices across broad fields of society including K-12 education, higher education, law, medicine, psychotherapy, neuroscience, and others show that these practices provide fertile ground for promoting positive effects in diverse domains.

Besides promoting non-material outlets of satisfaction through the development of positive emotional states [1,14-15, 25-26], and providing an increased ability to become aware of governing thought processes, strengthening the ability to recognize opportunities to behave in a certain way [27], a large body of research has shown these techniques strengthen neurological activity associated with long-term decision-making [17-18]. By increasing neurological activity in the pre-frontal cortex, which is in part responsible for long-term decision-making, these practices may influence our ability to engage in behaviors that reflect a valuation of long-term issues like global health.

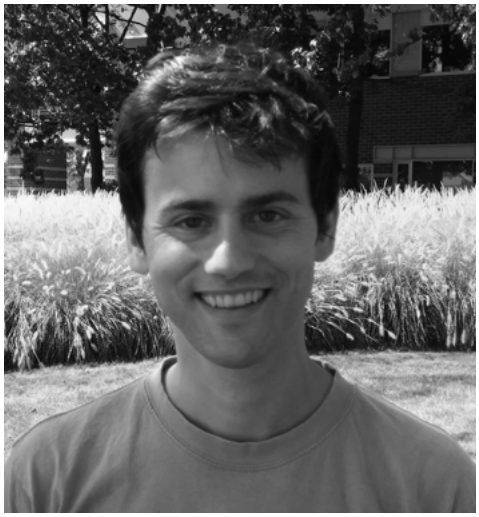
Allowing us to more easily recognize when our 'wants' and 'needs' are being confused, or when we are lost within our 'wants', is alone a powerful boon for sustainability. However, linking this recognition with a clear sense of internal resources capable of providing for 'wants', the development of a felt sense of empathy and compassion towards others, and neurological changes which promote long-term decision making, would provide an indispensible tool for fostering sustainable communities. Scientific literature suggests that

mindfulness practices may provide just these tools and moreover, may do so in a natural way. That is, the increasingly widespread popularity of mindfulness practices throughout diverse sectors of society, suggest that these practices can be naturally integrated into the structure of our everyday lives.

Closing Reflections

Fostering sustainable communities requires developments (and changes) in both how we perceive the world, as well as to the world itself. Mindfulness practice is in no way a replacement for advances in the physical and social sciences, or a replacement for personal or community based organization or action. However, mindfulness could serve as a strong base for all of these facets to rest upon, providing an indispensible attitude of mind within which social and technological developments could most efficiently and quickly take root, flourish, and sustain themselves.

So, next time you take your seat (or however else you might individually choose to consciously feel yourself and the world you find yourself within), perhaps reflect that such a simple dedication may be helping to lay not only more wise and compassionate internal foundations, but external ones as well. Ultimately, the external object is known to us as a perception within awareness, and our conscious relationship with that perception makes all the difference in the world!



Victor Bucklew works as an optical scientist, designing pulsed laser sources for medical imaging as well as mobile-based spectrometers for accessible anemia detection in third world countries. Recognizing that the process of cultivating mindfulness in everyday life is unique for each and every individual, Victor hopes to inspire reflection on ways in which we can each naturally fall into such a balanced perception for and within ourselves.

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Foundations of Well-Being

Experiential Activity: Sustaining Attention

The Foundations of Well-Being is an online program teaching participants how to hardwire the 12 pillars of well-being - such as mindfulness, gratitude, and courage - into their brain. This experiential activity is from the second pillar in the program: Mindfulness. You can watch Laurel Hanson's video tutorial for it at bit.ly/sustaining-attention and see its directions and template just below.

Sustaining Attention: A Dot Drawing

Materials needed:

Paper, markers or something else to write with, template (optional)

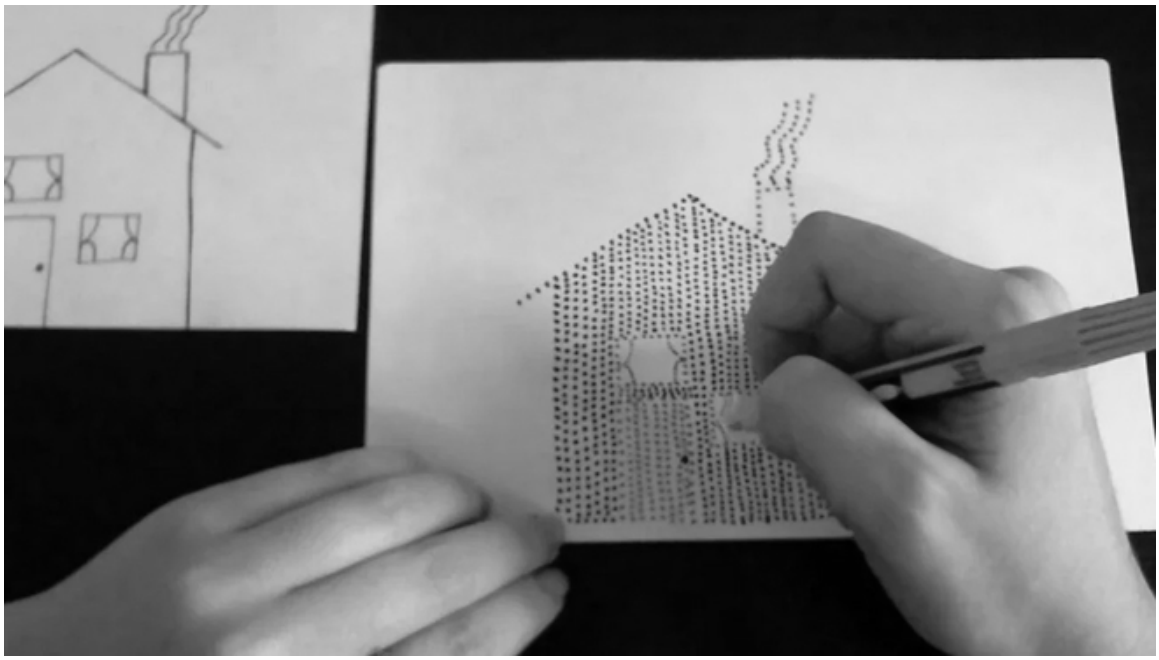
Directions:

1. Choose something to create in your drawing. This could be one of the images from the template, or you could choose your own. Ideally, pick a design that is simple to draw (flower, butterfly, house, crown, etc.). This activity can also be done by just creating a basic shape (square, triangle, circle).

2. Using a marker, pen, or pencil, draw your image just by making dots with your pen. As this is an exercise in concentration and focus, try to keep your attention on the act of making each dot, moving slowly and deliberately, as you create your picture.

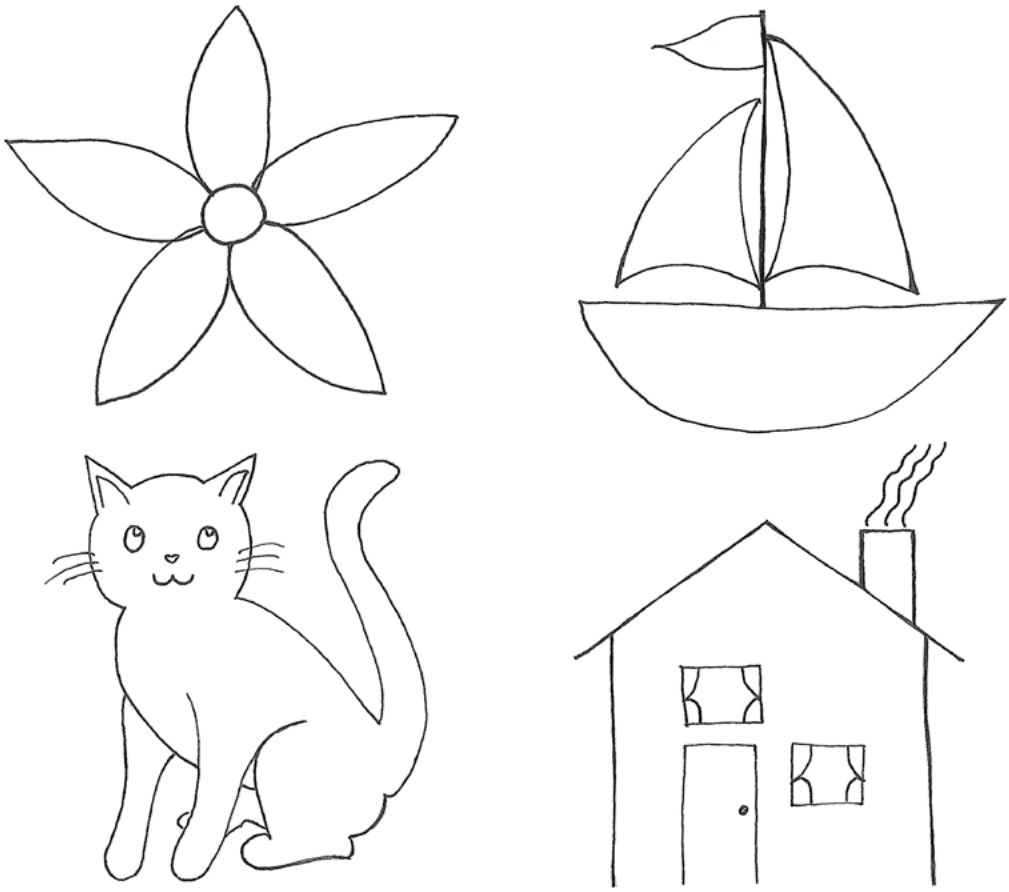
3. Continue using dots to create your image, staying mindful and deliberate. If your attention wanders, gently bring your focus back to the task at hand. Try focusing on the physical sensations in your body, like your breathing or the motion of your hand, if you become distracted. Continue until your picture is complete.

Watch the video tutorial at bit.ly/sustaining-attention
(the tutorial page also includes a helpful 35-minute audio loop that will aid you in sustaining attention and being kind to yourself during this activity)



Drawing Template

(download this template at bit.ly/sustaining-attention)



Fare Well

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