

# What is Mindfulness?

*We shall not cease from exploration  
And the end of all our exploring  
Will be to arrive where we started  
And know the place for the first time.*

*--from T.S. Eliot's "Little Gidding"*

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## I. SOME USEFUL DISTINCTIONS

What pops into your head when you hear the word “mindfulness”? After nearly half a century of practice, teaching, and research in this field, here’s what comes up for me.

When I hear the word mindfulness without further qualification, I don’t think of one thing. I think of eight things. More precisely, I see a sort of abstract octahedron—one body with eight facets. The eight facets are:

1. Mindfulness – The Word
2. Mindfulness – The Awareness
3. Mindfulness – The Practices
4. Mindfulness – The Path
5. Mindfulness – The Translation
6. Mindfulness – The Fad
7. Mindfulness – The Shadow
8. Mindfulness – The Possible Revolution

It has been my experience that carefully considering each of these aspects helps dispel a lot of confusion and contention. First I’d like to touch on each briefly, then discuss some of them in more detail centering around the issue of how to define mindful awareness.

### Mindfulness – The Word

It’s important to remember that mindfulness is merely a word in the English language. As such, its meaning has evolved through time and it may denote different things in different circumstances.

When speaking of non-Western cultures, it is common to distinguish the pre-contact situation from the post-contact situation. Contact, in this case, refers to interaction with modern Europeans.

Here’s an example. Before contact with Western ideas, the Japanese word *kami* referred to the local Shinto god(s). Contact with Abrahamic religions caused a semantic broadening. *Kami* can still refer to a particular Shinto god, but it can also stand for the Western monotheistic notion of God/Deus/Elohim.

But contact is a two-way process. Prior to contact with Asian culture, the English word mindfulness meant something general like heedful or aware of context. After contact, it could still be used in that general way but more and more it has come to designate a very specific type of awareness. It is mindfulness in that specialized sense that I seek to clarify in this article.

We can distinguish several stages in the development of “post-contact mindfulness.”

In the 19<sup>th</sup> century, mindfulness was used to translate the Pali word *sati*. Pali is the canonical language of Theravada. Theravada is a form of Buddhism found in Southeast Asia. Among surviving forms of Buddhism, Theravada is thought to be the closest to the original formulations of the Buddha. *Satipaṭṭhāna* (“Establishing Mindfulness”) is a representative practice of Theravada.

In the 60s and 70s, Westerners began going to Southeast Asia to learn mindfulness practices. They brought those practices back to the West and began to teach them within the doctrinal framework of Buddhism.

In the 80s and 90s, it was discovered that those practices could be extracted from the cosmology of Buddhism and the cultural matrix of Southeast Asia. Mindful awareness practices (MAPs) started to be used within a secular context as systematic ways to develop useful attentional skills. MAPs became ever more prevalent in clinical settings for pain management, addiction recovery, stress reduction, and as an adjunct to psychotherapy. Eventually it came to be understood that mindful awareness is a cultivatable skill with broad applications through all aspects of society, including education, sports, business, and even the training of soldiers.

As the word mindfulness in its “post-contact” sense gained popularity, people naturally began to ask “How do we define mindful awareness?” I think it’s safe to say that we do not have a really satisfactory definition of mindful awareness. Yet we sense that it’s a distinct entity of some sort and that it may have the potential to contribute significantly to human flourishing. So we find ourselves at that deliciously excruciating point in the development of a new science where we know we’re on to something but we can’t quite tie up all the loose ends. For that reason, it’s important not to fool ourselves into thinking we understand more than we do.

The ultimately satisfactory definition of mindful awareness would be a biophysical one—couched in the language of SI units and mathematical equations modeling the neural correlates of mindful states and traits. We are decades, if not centuries, away from that kind of rigor.

That kind of rigor will result from research. But in order to begin research on something, we have to first define it. So it would seem that we are in a sort of catch-22 situation here.

One way out is to begin with a tentative definition and then refine it over time. In Section III, I offer a candidate for that and justify it from numerous points of view.

Side note: Although there exist traditional Sino-Japanese words corresponding to *sati*, *satipaṭṭhāna*, and such, the modern Japanese word for mindfulness (*maindofurunesu*) is derived from English. This could perhaps be taken as an example of post-post-contact linguistic change—an Asian language being influenced by a Western word that has been influenced by a (different) Asian language!

## Mindfulness – The Awareness

The word mindfulness can, for one thing, denote a specific form of awareness or attention. When we wish to speak carefully, we should refer to this as mindful awareness.

It is customary to distinguish state mindful awareness (how mindful a person happens to be at a given time) from trait or baseline mindful awareness (how mindful a person is in general).

Mindful awareness is often defined in terms of focusing on present experience. In Section III, I'll offer a detailed analysis of that notion and propose a somewhat more fine-grained formulation. In Section IV, I'll discuss whether the proposed refinement represents an improvement.

## Mindfulness – The Practices

Mindfulness can also refer to the systematic exercises that elevate a person's base level of mindful awareness. Once again, in careful usage we should refer to these as mindfulness practices or, more fully, mindful awareness practices (MAPs).

Two of the most common MAPs are Noting and Body Scanning. Both of these were developed in Burma and appear to date from the early 20th century. Body Scanning is associated with U Ba Khin who was a highly respected official in the Burmese government. Noting is associated with Mahasi Sayadaw who was a famous scholar monk.

Based on the broad way I will be defining mindful awareness, the following could also be considered MAPs:

- Loving kindness (and more broadly the *Brahmavihāras* practices)
- Open presence (Choiceless Awareness, Do Nothing, etc)

## Mindfulness – The Path

A person's base level of physical strength can be dramatically elevated through a well-organized regimen of physical exercise. Analogously, a person's base level of mindful awareness can be dramatically elevated through a well-organized regimen of mindful awareness practices. But so what? Why, in specific, is mindful awareness a good arrow to have in one's quiver of life skills?

Well, it turns out that mindful awareness is not just an arrow. It is more or less the arrow—a tool of immense power and generality that can be applied to improving just about every aspect of human happiness.

I use the phrase “Mindfulness – The Path” for the process of applying mindful awareness to achieve specific aspects of human happiness. I like to classify those aspects under five broad headings. Mindfulness can be used directly to:

- Reduce physical or emotional suffering.
- Elevate physical or emotional fulfillment.
- Achieve deep self knowledge.
- Make positive changes in objective behavior.
- Develop a spirit of love and service towards others.

In addition to its direct effect on a person's happiness, mindful awareness can also have significant indirect effects. That's because mindful awareness potentiates the efficacy of other growth and self help processes. From body work, through the spectrum of psychotherapies, up through a person's introspection and prayer life—every growth modality becomes more powerful when implemented on a highly mindful platform.

Mindfulness – The Path has two sides:

- The theoretical side
- The practical side

The theoretical side seeks explanatory mechanisms.

- By merely directing attention in a certain way, a person can dissolve intense physical pain into a kind of flowing energy—and do so consistently. How do we explain this? What specific mechanisms are involved?
- By merely directing attention in a certain way, a person can come to an empowering “I-Thou” relationship with the world. How do we explain this? What specific mechanisms are involved?
- By merely directing attention in a certain way, a person can break the spell of a long-standing destructive habit. How do we explain this? What specific mechanisms are involved?

The practical side involves organizing and packaging MAPs into dedicated programs that address the interests and needs of specific populations.

In Section V, I'll describe in detail one specific theoretic model: how mindfulness reduces suffering.

My colleague Soryu Forall's Modern Mindfulness for Schools program ([www.cml.me](http://www.cml.me)) is an example of a practical application. It organizes a subset of my Unified Mindfulness System (formerly Basic Mindfulness System) into an Internet product for classroom use.

I sometimes find it useful to think in terms of “systems of mindfulness”. A system of mindfulness (SOM) is a triple:

- A theory of mindful awareness and related topics.
- A set of specific techniques (i.e., practices).
- A set of guidelines for applying mindful awareness toward specific goals (i.e., a path).

One convenient feature of mindfulness is that a small set of techniques can have a wide range of applications. An SOM can be very narrow in its target or quite broad. At the narrow end would be tightly dedicated programs such as:

- Mindfulness for pelvic pain syndrome
- Or
- Court-ordered mindfulness-based anger management.

At the broad end would be what I refer to as a comprehensive system of mindfulness (CSOM). A CSOM has two characteristics:

- Its application guidelines cover the full spectrum of human issues.
- Its users are encouraged to apply mindfulness as broadly as possible to all aspects of their life.

Specifically, a CSOM encourages the user to apply mindful awareness to achieve the “ABCs of Human Goodness.”

- Affect – Cultivate habitually positive emotional states.
- Behavior – Make needed changes in objective behavior.
- Cognition – Reinforce rational, adaptive thought patterns.

Unified Mindfulness mentioned above is an example of a CSOM.

In Southeast Asia, ethics and good character (*sīla*) are often looked upon as a necessary precursor to mindfulness practice. On the other hand, training in positive affect (loving kindness, etc.) is often looked upon as a desirable add on to mindfulness practice.

But these elements can be sliced and diced in a different way.

If we wish to make skill acquisition the point of entrance, then character and behavior become a specific application of mindfulness skills. This is useful in the multicultural setting where people may have different ideas regarding behavioral norms.

Furthermore, practices such as loving kindness can be done in a way so that they strengthen a person’s basic attentional skills: concentration, clarity, and equanimity. Therefore, they fulfill my rather broad definition of a mindful awareness practice. But they also foster the ABCs of human goodness. In that regard, they can be looked upon as applications of mindful awareness, i.e., in intrinsic part of the path of mindfulness.

What is revolutionary about mindfulness is that it makes acquisition and application of attentional skills the centerpiece for (potentially radical) psycho-spiritual growth. It can therefore sidestep some of the contentious issues surrounding historical movements where the centerpiece is often acceptance of a belief structure combined with assent to a detailed list of rules.

## Mindfulness – The Translation

There is a lot of public disagreement about what mindfulness “should” mean. Part of this stems from the fact that the English word mindfulness can be used to translate various Asian terms. Someone who wants to be faithful to a specific Asian usage may insist on defining mindfulness in a rather narrow way. On the other hand, people who are excited by “Mindfulness – The Possible Revolution” tend to define it in a broader way, and may not require that it stand for a specific Pali, Sanskrit, Chinese, or Tibetan word.

Mindfulness was originally used to translate the Pali word *sati* but it can more loosely refer to a number of other closely related terms of Indian origin. Mindfulness may connote:

Sanskrit	Pali
<i>smṛti</i>	<i>sati</i>
<i>smṛtyupasthāna</i>	<i>satipatṭhāna</i>
<i>vipaśyanā</i>	<i>vipassanā</i>
<i>vipaśyanābhāvanā</i>	<i>vipassanābhāvanā</i>

There are specific Tibetan and Chinese words that correspond to these Indic terms. The Pali words are currently used in Southeast Asia. The Sanskrit words were used in India during the middle and late Buddhist period. The Tibetan versions are used in Tibet. The Chinese versions are used in East Asia (China, Japan, Korea, and Vietnam).

Things can get contentious and confusing if we try to make the English word “mindfulness” correspond to exactly one Asian term. Here’s why. Although the words listed above are closely related, they are not quite synonyms. Moreover, Southeast Asian, East Asian, and Tibetan traditions do not necessarily agree among themselves as to how to define those terms. Indeed, even within a given cultural area, there can be disagreement among different scholars and lineages as to what a given term specifically designates.

I and some other teachers (most notably Jon Kabat-Zinn) would prefer to not require that mindfulness directly correspond to any specific Asian term. **For me, mindfulness designates any growth process based on acquiring and applying concentration, clarity, and equanimity skills and capable of providing industrial strength effects.**

## Epilogue

How do you say “mindfulness” in Tibetan?

Unified Mindfulness is the name of a SOM I created. It’s the first (and to my knowledge only) comprehensive system of mindfulness specifically designed to help scientists answer basic questions about the nature of consciousness. It does that by classifying sensory categories and focusing strategies in a way that is convenient for analyzing neuroimaging data. It is currently being used in neuroscience labs at BWH and MGH (both parts of Harvard Medical School).

It is well known that the Dalai Lama of Tibet is interested in and supportive of scientific research on contemplative practices, Buddhist and otherwise. Soon after we got the results of our first research at Harvard Medical School, our Principal Investigator Dave Vago was invited to meet with His Holiness the Dalai Lama. Dave wanted to describe our research and asked me how to say “mindfulness” in Tibetan. I immediately realized that we had a problem. If we take mindfulness to be the translation of the Pali word *sati* (Sanskrit *smṛiti*), then the answer is simple. The Tibetan word for mindfulness is *dran.pa*. (pronounced something like “chemba”). But for Dave and me, “mindfulness” is a much broader concept. For us and some other people in the field, mindfulness is essentially a secularized and streamlined reworking of some of the Buddha’s main discoveries—discoveries that can be made evidence based and organized around the notion of acquiring and applying attentional skills.

There is no term in Pali, Sanskrit, Chinese, or Tibetan corresponding to mindfulness in that sense.

So how could we convey *our* understanding of mindfulness in a Tibetan word that would be meaningful to the highest authority in the world on Tibetan Buddhism? A fascinating challenge.

I got together with a team of friends who have a good knowledge of Tibetan and understood the nature of the problem. We’re all Americans but of diverse ethnic provenance. Eventually we came up with a remarkably good candidate.

It turns out that the Tibetan language has a way to solve problems like this. The word *lam* (literally “path”) implies a comprehensive system. If you preface it with something, say X, it forms a word meaning

“a comprehensive system based on X”.

So we came up with *dran.lam* (short for *dran.pa.lam*).

Afterwards, I thought to myself, what a wild, wonderful age we were living in—

an Irish-Lebanese-Puerto-Rican-Jewish team concocting a Tibetan neologism so as to convey to the Dalai Lama a way of radically revisioning Buddhism!

## Mindfulness – The Fad

Mindfulness is currently a sizzling hot topic in many areas of mainstream Western culture. The downside of this is that some programs being marketed under the rubric of mindfulness have at most a tenuous connection to the practices and paradigms that are the subject of this article. Specifically, they completely fail to capture its potential for radical transformation and unconditional happiness. But it’s precisely this potential for radical transformation that old-timers like me find most exciting. I think of mindfulness as the big guns—something that helps when nothing else can.

The situation is reminiscent of what happened to the word biofeedback. Biofeedback is a well-defined physiological process which erupted into celebrity in the 1970s and continues to be studied to this day. But as soon as the term became well known, numerous products and processes calling themselves biofeedback flooded the self-help market. Many of these had not the slightest connection with what physiologists refer to as biofeedback.

## Mindfulness – The Shadow

So far my glowing depiction has made mindfulness sound a bit like the Shmoo. The Shmoo is a fictitious creature that appeared in the cartoon series Li’l Abner. The Shmoo creature is endowed ludicrously with many desirable features and not a single undesirable one. Is mindfulness like that? Not quite.

Much of what appears in the literature of mindfulness describes what I would call Mindfulness Lite. In this article, I will be emphasizing the importance of also understanding Mindfulness Classic—the industrial strength end of the spectrum. Two groups gravitate towards Mindfulness Classic.

- Group I. People seeking deep transformation/transpersonal experience/spiritual praxis.
- Group II. People facing challenges so huge that nothing short of the big guns will help.

Many people—probably most—will find themselves in Group II at least once or twice in a lifetime. So from that perspective, it’s important for anyone in the mindfulness field to understand Mindfulness Classic, specifically:

- To appreciate its potential payoffs.
- To know about its possible problems.

How dramatically a person changes as the result of mindfulness practice depends on several variables:

- The amount of time they devote to practicing techniques.
- The type of techniques they use.
- Their personal goals.
- What their guide tends to emphasize.

Devoting more time to practice tends to speed up change; reducing time spent in practice tends to slow down change. As a general principle, deconstructive techniques move change in the direction of experiencing ego transcendence. (The “Return to the Source” process described at the end of Section V is an example of a deconstructive technique.) Reconstructive techniques move change in the direction of ego strength.

(Loving kindness is an example of a reconstructive technique.) Tranquilizing techniques move change in the direction of emotional regulation. (Certain kinds of breath practice are examples of tranquilizing techniques.)



As with any growth process (psychotherapy, for example), there’s always the possibility that mindfulness will bring up too much too soon. So, people considering intensive programs should be informed beforehand of the range of phenomena they may encounter.

So what to do if too much comes up too soon? The remedy is relatively straightforward:

- Change the techniques  
and/or
- Reduce the amount of time devoted to practice.

The most dramatic transformation associated with mindfulness is transpersonal experience. Transpersonal experience brings about a shift in one’s perception of self. When that change begins to occur, there may be a period of adjustment to the new, less solidified, less separated mode of being. Most people have no difficulty making that adjustment because the new state is so deeply fulfilling, insightful, and empowering.

However, occasionally people encounter serious difficulty accommodating to an attenuated and unfixed perception of self. This difficult stage is sometimes referred to as the Dark Night. Four points need to be made immediately.

1. This phenomenon is completely different from the “too much too soon” situation mentioned above. It’s a distinct critter and typically requires specialized and intensive support.
2. There is a well-defined way to provide that support. It works reliably but may require a bit of time (perhaps several years).
3. Once a person has gotten through the Dark Night, they come to an abiding happiness beyond anything they could have imagined possible.
4. The Dark Night phenomenon is relatively rare—even among people who engage in the industrial strength level of mindful practice.

So the chances that involvement with MAPs would trigger this issue is rather small. But rather small ≠ 0, and as more and more people take on mindfulness, this phenomenon is bound to surface.

For that reason, it's important for people in the mindfulness field to:

- Be able to recognize the Dark Night.
- Know how to guide people through it or, at the very least, know how to find someone who knows how to guide people through it.

So how do you guide a person through it?

This would not be an appropriate place to go into the details but I can at least give you the gist of how it's done.

The main take away points are:

- it may require a massive and sustained support effort, and
- it will be well worth that effort.

The Dark Night is a kind of awkward inbetween zone. A classic Johnny Mercer song talks about "Mr. Inbetween." It unintentionally provides a mnemonic for how to get through the Dark Night quickly.

*Jonah in the whale, Noah in the ark,*

*What did they do, just when everything looked so dark?*

*You gotta...*

*Accentuate the positive*

*Eliminate the negative*

*And latch on to the affirmative*

*Don't mess with Mister Inbetween.*

Three focus strategies transform the situation from problematic to blissful.

1. **Accentuate** the good parts of the Dark Night even though they may seem very subtle relative to the bad parts. You may be able to glean some sense of tranquility within the Nothingness. There may be some sense of inside and outside merging (leading to an I-Thou relationship). There may be soothing, vibratory energy massaging you. There may be a springy, expanding-contracting energy animating you.
2. **Eliminate** the negative parts of the Dark Night by deconstructing them through careful observation. Remember "Divide and Conquer"—if you can divide a negative reaction into its parts (mental image, mental talk, and emotional body sensation), you can conquer overwhelm.
3. **Affirm** positive emotions, behaviors, and cognitions in a sustained systematic way. By that I mean gradually, patiently reconstruct a new habitual self based on loving kindness and related practices.

In most cases, all three of these must be practiced and maintained for however long it takes to get through the Dark Night. In the most extreme cases, it may require ongoing and intensive support from teachers and other practitioners to remind the student to keep applying these focusing strategies.

The traditional Buddhist term for this phenomenon is “falling into the Pit of the Void” but modern Western Buddhists often refer to it as the Dark Night. Ironically, that phrase is actually of Christian origin. It was coined by a 16<sup>th</sup> century Spanish priest St. John of the Cross. His writings contain a vivid description of the challenges involved in this phenomenon and the rewards that await on the other side.

The Dark Night is in some ways the “evil twin” of enlightenment. A person experiences oneness/emptiness/no self but it’s a bad trip (at least for a while).

A related phenomenon can occur suddenly and spontaneously to people who aren’t engaged in any specific practice. The clinical term for this is Depersonalization/Derealization (DP/DR) Disorder. The name pretty much sums up the situation. Could an intervention, such as described above, be helpful for victims of DP/DR? I’m not personally aware of any studies regarding this, however I think it’s an interesting clinical question.

## Mindfulness – The Possible Revolution

As mentioned previously, mindful awareness is a skill set. In that regard, it’s no more controversial than learning to shoot hoops or to play the piano. But it’s an attentional skill set and how we pay attention can influence how we perceive and behave. One of the convenient features of mindfulness is its “scalability.” Mindfulness Lite can calm a 6<sup>th</sup> grader. Mindfulness Mid-Strength can take the edge off of stress and improve your golf game. On the other hand, Industrial Strength doses of mindfulness will allow you to stride through life like a Colossus—in touch with a Happiness that cannot be shaken by circumstances.

Mindfulness is currently in the process of aligning itself with the single most powerful and universally influential institution on this planet—science.

Science is being evoked both to confirm the clinical effects of mindfulness and to develop a theory that explains those effects. It is by no means certain that this line of research will be successful. But IF it is successful, consequences could be historic in magnitude. We would then have:

A process with the potential to  
radically change a person for the better

which is based on merely acquiring and applying  
a well-defined set of skills

and

which is an accepted part of standard science.

By way of contrast, previous approaches for rapid and radical personal change have been based on the (highly contentious) processes of acquiring a well-defined set of beliefs and have sometimes been at odds with the findings of science.

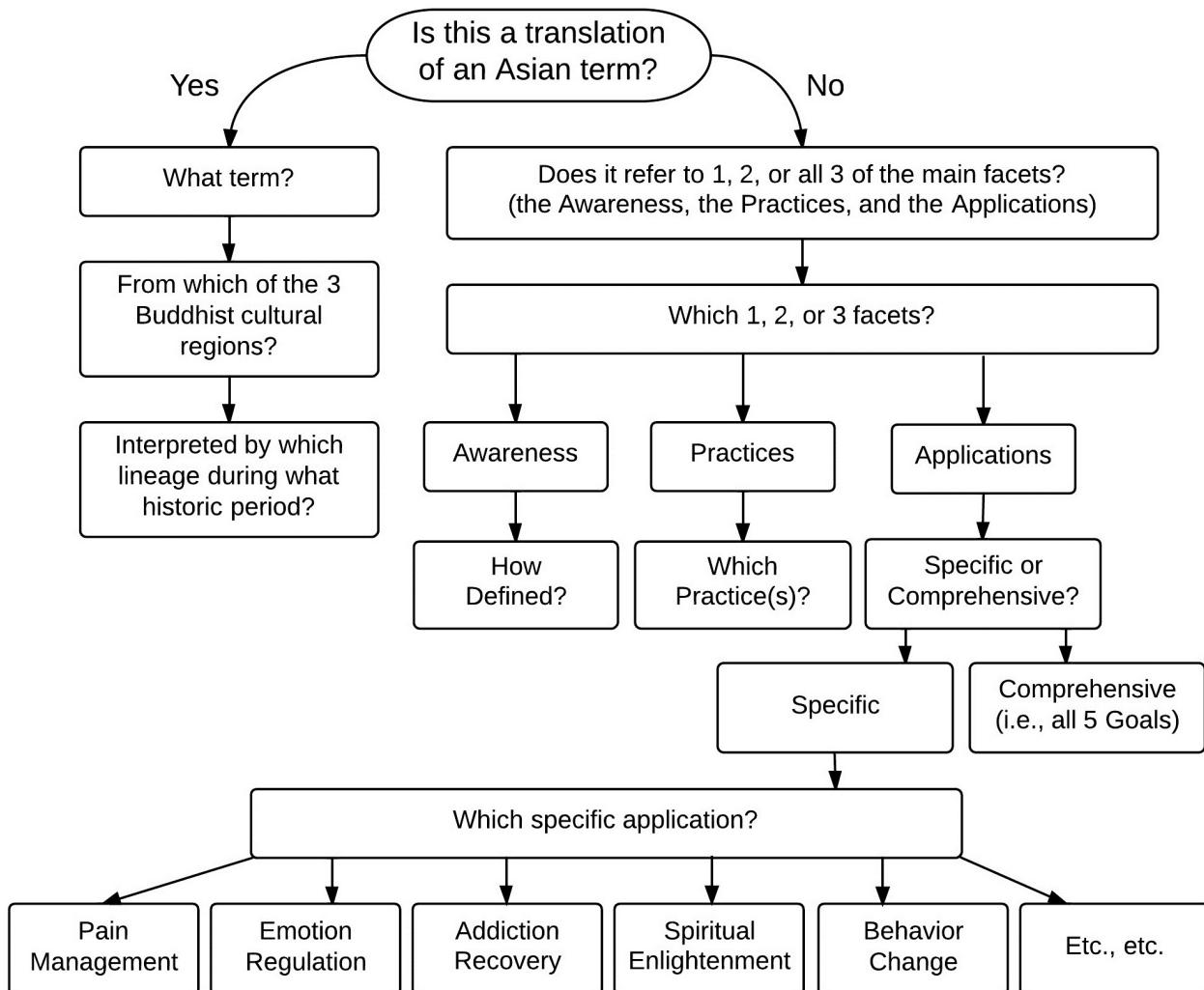
Conveniently, there is nothing intrinsic in mindfulness that directly conflicts with such faith-based approaches. Attentional skills can be thought of as lying in a dimension that is independent from personal beliefs. Mindfulness has the potential to become a sort of universal hardware platform upon which each person is invited to run whatever philosophical software they wish.

If science is able to come up with a quantified model for what happens at the industrial strength end of mindfulness training, then innovative technologies may make those effects accessible to a significant proportion of humanity, as opposed to the current relatively small group of dedicated adepts. This would in effect democratize enlightenment. I think of this prospect as: Mindfulness – The Possible Revolution.

## Summing It Up

The word mindfulness without further qualification can refer to any one or a combination of three things: a form of awareness, the practices that elevate that form of awareness, and the application of that awareness for specific perceptual and behavioral goals. When we wish to speak with precision, we can use phrases such as mindful awareness, mindful awareness practices, and mindfulness applications (i.e., the path). But often it's simpler to just say mindfulness and let the context indicate the intended meaning(s). We will be doing that frequently in this article.

To sum things up, here's a flow chart of what goes on in my mind subliminally when I encounter the word mindfulness without further qualification.



## **II. NOTING: A REPRESENTATIVE PRACTICE**

### **Introduction**

Mindful awareness can be developed through a variety of practices. Among those practices, “Noting” and “Body Scanning” are particularly popular. I tend to take the somewhat broad view that any systematic practice that significantly elevates a person’s base level of concentration, clarity, and equanimity can be counted as a mindful awareness practice. In this way of thinking, even practices such as choiceless awareness, loving kindness, and self inquiry could, in theory, be counted as MAPs if they provide that result.

This would not be the place to attempt an overview of all MAPs. Rather, I’d like to give you a summary of just one: Noting.

Here are the instructions for how to note as defined in the Unified Mindfulness System. It is similar to, but not identical with, Noting as done in the Mahasi tradition.

A period of Noting practice consists of a sequence of acts of Noting.

An act of Noting usually consists of two parts:

1. An initial noticing.
2. An intent focusing on what you noticed. This intent focusing may last from a fraction of a second to several seconds. During this intent focus phase, you intentionally soak into and open up to the thing you noted. This is traditionally referred to as “penetrating” or “knowing” the focus object.

Thus, Noting consists of a sequence of noticing and knowing. We will refer to what gets noted as a focus object. Associated with each focus object is a word or phrase—its label. As you note something, you have the option to think or say its label. When you speak the labels out loud, intentionally use a low, gentle, matter-of-fact, almost impersonal tone of voice. When you think the labels, create the same tone in your mental voice. The tone of voice helps put you in a deep state.

The relationship between Noting and labeling and mindful awareness is as follows:

- Labeling can facilitate Noting.
- Noting can facilitate mindful awareness.
- Mindful awareness is a key skill for achieving True Happiness.

Noting need not be accompanied by labeling, and labeling may be mental or spoken. This gives us three possibilities:

1. Just Noting without intentionally labeling.
2. Mental labels accompanying the Noting.
3. Spoken labels accompanying the Noting.

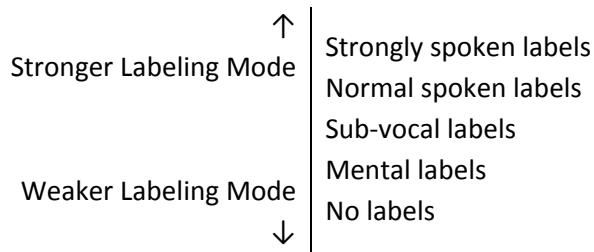
Within the spoken labels there are three sub-types:

1. Sub-vocal labels (mouthing, whispered, or sotto voce labeling that would be inaudible to people near you.)
2. Ordinary spoken labels.
3. Strongly spoken labels.

(Obviously the latter two can only be done in appropriate environments.)

This gives you a spectrum of five possibilities analogous to gear positions in a car. We will refer to these five possibilities as “labeling modes.”

You can freely shift back and forth between labeling modes. You may shift frequently or seldom as circumstances dictate. By circumstances, I mean what is going on inside you (how focused or scattered you are) and what is going on around you (whether there are people you might disturb, etc.). As a general principle, as soon as you get spaced out or caught up, immediately shift to a stronger mode of labeling. Once you get well focused, you can drop to a weaker mode of labeling if you so desire.



## **Noting the Noting**

Making a mental label is obviously an instance of mental talk. Should you note it as such? The answer is no.

## **Dividing the Attention**

As a general principle, put no more than 5% of your attention on the labeling process itself. The other 95% goes into the “knowing.”

An exception to this is the case of strongly spoken labels, which are used when you really “hit the wall” and you need a period of strong feedback to fight with wandering mind and unconsciousness. When using strongly spoken labels, 25% or even more of your attention should go into really listening to the labels. That way as soon as the label stream ceases, you have instant feedback letting you know that you are getting spaced out and caught up.

## Some Frequently Asked Questions

1. Question: Noting makes me think a lot. I think about if I'm doing it right. I think about what to look for next. I think about thinking about thinking. What should I do?

Answer: Just be patient. Those are common initial reactions. They tend to go away with time as the Noting categories become more second nature for you and your mind gets tired of playing games with itself.

Another thing you can try is to make your Noting voice more impersonal and matter-of-fact. That may help reduce the "tripping out on yourself" aspect you're reporting.

2. Question: It seems that a lot of my labels are just guesses.

Answer: That's okay. You have to start somewhere. Confidence comes with experience.

3. Question: It seems that my labels often come late, after the fact, especially when I'm trying to track mental talk.

Answer: That's to be expected at the beginning. You are still much more alert than you would be otherwise. With practice, Noting becomes concurrent with the arising of each experience.

4. Question: The Noting seems to interfere with or change the thing I'm focusing on so I can't detect what's really there.

Answer: Sure you can. What's really there is whatever was there plus any change produced from the act of paying attention to it. In this practice our task is (1) to be clear about where we're focusing and (2) to soak in and savor it. Any sensory experience is a valid candidate for focusing on, even if that experience has been caused by or modified by the act of focusing itself.

5. Question: Noting seems to reinforce a strong sense of an "I" doing the Noting.

A: That's natural at the beginning. At some point the Noting goes on autopilot.

Here's a metaphor. You can do the complex task of driving a car without needing much of a "driving self." In the same way, eventually you will be able to quickly and accurately label complex phenomena without needing a "meditating self." When that happens, the sense of distance between noter and noted collapses.

6. Question: I just keep labeling the same thing over and over again. What's the point?

A: Remember that Noting is not just noticing. Each time you note something you should intentionally soak into it and open up to it. In other words, you should intentionally infuse clarity and equanimity into what you note, each time you note. When you note that way you are helping deep mind learn a new way to process experience. You are not wasting your time even if you just note the same banal thing over and over.

I know that this can be challenging, because initially you may not get any immediate positive feedback to indicate that something is changing deep down. At some point, though, you begin to sense your awareness

penetrating into the thing noted, softening and purifying the sensory circuits that lie below. When that happens, you start to get immediate tangible feedback that the Noting is doing something useful, and you don't begrudge the fact that you're noting the same thing over and over.

#### 7. Question: Why should I note and label?

Answer: There are many reasons. Here are a few.

- The gentle loving tone that you create in your voice as you label can be very powerful. Your own voice can put you into a deep state of reassurance, safety, and self-acceptance. We'll refer to such a state as equanimity.
- Noting allows you to focus on just what's present in the moment. This reduces overwhelm, which in turn reduces suffering.
- Noting allows you to break experiences down into manageable parts and deal with them one at a time. A 500-pound weight will crush you, but ten 50-pound weights can be carried one at a time.
- Several of the focus objects represent windows of opportunity—pleasant aspects of experience (such as rest and flow) that are often present but usually go unnoticed and, hence, un-enjoyed. Sensory categories used in Unified Mindfulness are set up to call your attention to such windows of opportunity.

#### 8. Question: I cannot seem to separate mental image from mental talk. Any suggestions?

Answer: It depends on what you mean by "separate."

If by separate you mean preventing image and talk from happening at the same time, or stopping them from interacting back and forth, then you're right. Neither you nor anyone else can separate them in that sense. However, the good news is that there's no need to separate them in that sense. Even when mental talk and mental image are intertwined, it is still possible to experience them as qualitatively and spatially distinct sensory events.

Qualitatively speaking, mental image is visual. Mental talk is auditory. Spatially speaking, image tends to be centered more forward. Talk tends to occur further back, in your head.

Just as you can distinguish external sights from external sounds, you can "separate" internal images from internal conversations.

#### 9. Question: Can you summarize some basic guidelines for the labeling process?

Answer:

- If you are noting without labels and are getting spaced out or caught up, start to mentally label.
- If that doesn't help, modulate your mental voice to be more gentle and matter-of-fact, even if that seems artificial and contrived.
- If that doesn't help, speak the labels out loud in that gentle and matter-of-fact tone.

- If that doesn't, use strongly spoken labels.
- If the effort to speak the labels causes uncomfortable reactions (resistance, emotion, and so forth) label those reactions. (Those reactions are proof that you're doing the procedure correctly. The stronger labeling mode is forcing you to go toe-to-toe with the unconsciousness itself!)

10. Question: I don't like to label.

Answer: The solution is easy. You don't have to! Labeling is an option within the apparatus of Noting. But if it's a choice between effortful labeling on one hand and being grossly spaced out on the other, go for the labels!

## **III. TOWARDS A DEFINITION OF MINDFUL AWARENESS**

### **Desiderata**

#### **Characteristics of a Good Definition**

Before discussing how mindful awareness might be defined, it would be useful to consider what characteristics a good definition should possess. For me, four things come to mind. I'd like my definition of mindful awareness to be:

- Intuitive
- Quantitative
- Explanatory
- Historical

#### **Intuitive**

By intuitive I mean easily understood by the average person. After all, if mindfulness is a good thing, then we want people from all educational and social backgrounds to embrace its practice. This will be easier if mindful awareness can be described in a way that is relevant to most people's experience. Stated in somewhat crass terms, we would like our definition of mindful awareness to be such that the average person will readily "buy into" it.

#### **Quantifiable**

Quantifiable is short for quantitative in a rigorous way. By that I mean something a hard-nosed scientist would be comfortable with, something "operational"—ideally something measurable in biophysical terms.

#### **Explanatory**

I'd like my definition to be convenient for forming hypotheses that explain observed effects. In Section I, I listed five broad headings under which the effects of mindfulness could be classified. Each of those headings contain numerous subheadings. Are the mechanisms that explain this wide spectrum of effects identical or are different mechanisms at work for different effects? In either case, we would like our definition of mindful awareness to help explain, in a plausible and detailed way, how the left hand side of the formula below is connected to the right hand side.

Applying generic attention skills ⇒ specific improvements with respect to a perception or a behavior

#### **Historical**

Historical is short for historically heuristic. Something is heuristic if it is capable of providing insight (*heureka*). A historically heuristic definition of mindful awareness would allow us to understand its relationship to other states of consciousness that have been known throughout history and across cultures. As a corollary, it would

clarify the relationship between mindful awareness practices and other practices, both pre-modern (e.g., yoga, Christian contemplation) and contemporary (e.g., psychotherapy, 12-Step Program, etc.).

## A Common Definition

The most commonly encountered definition of mindful awareness is something like:

“Present-centered, non-judgmental attention.”

Let's begin with that.

Definitions should be as unambiguous as possible. Different people may have different ideas as to what it means to be present-centered or non-judgmental. Perhaps by reviewing a range of examples, we'll be able to bring more clarity to the issues involved. Hopefully that will allow us to refine and rigorize our formulations.

## Present-Centered

Consider the following.

### Present 1: Sight, Sound, and Body is Now

You focus on physical sights, physical sounds, and (physical and emotional) body sensations as they arise. If you get caught up in a thought, you let go of that thought and bring your attention back to a physical sight, physical sound, or a body experience.

Clearly, content-wise, sights, sounds, and body events keep you in the present. Any content unrelated to the present will come up as thought—remembering, planning, rehearsing, fantasizing, and so forth.

So this practice would lead you to being present-centered. Indeed some people would define present-centered in terms of a practice like this. In that formulation, present-centered means being anchored in physical senses and body experience with little or no intrusive thought.

Consider yet another possibility.

### Present 2: Breath is Now

You focus on your breath. If your attention is pulled to anything else, you return to focusing on the breath. You try to detect each in-breath and each out-breath as a distinct event. If they feel different, you note that difference. You try to detect the very instant when the in-breath begins and the very instant when it ends; likewise for the out-breath.

For many people, example 2 might result in a “tighter” experience of the present than example 1.

## Analysis

Let's make a careful analysis of these examples.

Both involve selective attention. In the first case, you intentionally focus on a certain class of sensory experience and intentionally pull away from anything that's not in that class. In the second case, you do the same but focus on an even narrower class of sensory experience.

So in both cases, the “centered” in present-centered indicates that you’re intentionally focusing on a specific type of sensory experience—sensory experience that is intrinsically free of memory, planning, or fantasy content. Clearly, both exercises *build* concentration power. On the other hand, to do either exercise well *requires* concentration power.

Besides concentration power, are there any other attentional skills involved in these examples?

The first example seems mostly to involve concentration. Attention wanders into thought, bring it back to sight, sound, body! It wanders again, bring it back! It wanders again.... Each rep strengthens your concentration muscle.

There does seem to be a new element in the second example. Here you’re also being asked to make distinctions and discriminate the sensory qualities of the in-breath from the sensory qualities of the out-breath. You’re also asked to detect temporally fleeting events: the very instant the in- or out-breath begins and the very instant the in- or out-breath ends. The reason example 2 is temporally tighter is not because the focus is more narrow than example 1 (that’s merely a spatial feature). The reason example 2 is more in the Now is because:

1. The information processing channel is being saturated with data.
2. Subtle events, in particular subtle temporal events, are being detected.

The first factor might be thought of as resolution power or discrimination ability.

The second factor might be thought of as a sensitivity or detection ability.

Both could be grouped within a more general category which, for lack of a better term, we will call sensory clarity.

So sensory clarity involves resolution power and sensitivity. By resolution power, I mean the ability to distinguish qualitative, quantitative, and spatial differences. By sensitivity, I mean the ability to detect subtle sensory signals, spot fleeting events, monitor continuous rates of change and so forth.

Evidently, concentration power and sensory clarity are basic attentional skills needed to be present-centered.

The observant reader may have noticed that there’s an inherent limitation in both of the examples presented so far. They both involve selectively focusing on a certain type of sensory experience. Or, more to the point, they both involve focusing away from a certain type of sensory experience—thoughts. Now it is certainly true that, in terms of content, thoughts can be about past, future, or fantasy, but as sensory events (mental images and mental talk), they occur in the present. It would be satisfying if we could be present-centered with regard to all sensory events, including thoughts. To include thoughts as part of “Now”, you need to do two things.

1. Be clearly aware when each thought begins and when it ends.

## 2. Not be caught in the thought as it is happening.

It's the "caughtness" in the thought that pulls us out of the present and into past, future, and fantasy content.

The first point involves an attention skill we're already familiar with—sensory clarity. The second point introduces a new element—"not-caughtness." Not-caughtness is a kind of hands-off relationship, a balance point that avoids both pushing down and grasping on. Our technical term for this skill will be equanimity (from the Latin for "inner balance").

So it would seem that we can be present-centered without restriction with regard to sensory content as long as we have...

- Enough clarity to detect arisings and passings and discriminate sensory qualities.
- Enough equanimity to avoid getting caught up in things.

Here's a description of how to do that.

## Present 3: Everything is Now

You let your attention go wherever it wants to go. Whenever something arises to prominence, you focus intently on it, trying to experience it in all its sensory richness. You welcome each new experience but try not to grasp on or get caught up. Moreover, you're alert to detect the very moment when each sensory event arises and the very moment when it passes.

In Present 1 and Present 2, you needed concentration power to focus away from thought. In Present 3, you're not focusing away from anything. There's no specified thing that you're coming back to. So does that mean that concentration power plays no role here?

Well, it turns out that concentration power comes in several "flavors." One flavor is durative. The durative involves holding attention in a restricted domain for an extended period. The domain may be qualitatively restricted (just one class of sensory experience as in example 1). The domain may also be spatially restricted (just one location as in example 2).

The durative flavor is what most people think of when they hear the word concentration. But there's also a momentary flavor of concentration. This involves briefly but intently focusing on each sensory event as it comes up. Even though your attention may be broadly floating within a wide range of sensory experience, you briefly "taste" a moment of high concentration with each thing as it arises.

The momentary flavor of concentration power is very important in mindfulness practice—so important that there's even a technical term for it in Pali. The term is *khaṇikasamādhi*.

So concentration enters into any definition of present-centeredness. If we define present-centered as selective attention to present content, then we need the durative type of concentration power to hold that content with unbroken attention. If we define present-centered so it's applicable to any type of sensory content, then momentary concentration is relevant.

We also saw that if we wish to be present-centered but all inclusive, we need to utilize the equanimity skill.

Here's a subtle question. Suppose we wish to be present-centered by focusing away from thought; is equanimity still of any relevance?

The answer is yes because equanimity aids concentration. This is a general principle. Say A is your focus and B is everything else. If you want to focus on A, it's helpful if you can let B come and go in the background without having to do anything about B. But that requires equanimity with B. Your concentration and clarity are going to A but your equanimity surrounds B allowing B to "do its thing" in the background while you focus on and vividly know A.

## Summing It Up

It would seem that, regardless of how we choose to define it, present-centeredness requires three related but conceptually distinct attention skills.

Concentration, clarity and equanimity.

Conversely, any systematic exercise that develops all of these skills will allow us to be present-centered.

Perhaps these skills are in fact the defining characteristic of mindfulness and present-centeredness is just a consequence of applying these skills in certain ways (as illustrated by the three examples given above). Before considering that possibility, we need to look carefully at what we mean by "non-judgmental attention."

## Non-Judgmental

Consider the following situation.

### Non-Judgment 1: No "Second Arrow"

You are bombarded by the outer senses, sight, sound, touch, but these cause no inner reaction—no judging thoughts, no pleasant or unpleasant reactive emotions. For example, even when physical pain arises, it triggers no negative tapes, no disquieting images, no emotional sensations of tear, fear, or irritation.

In the traditional metaphor, the physical pain is the "first arrow". The first arrow is shot by external circumstances but you have, by internal volition, decided not to shoot yourself with a second arrow of reactive thoughts and emotions. The assumption here is that we may not always be able to prevent first arrows (undesirable situations) but one can learn how not to amplify it by shooting oneself with a second one.

This example is one candidate for what it might mean to be non-judgmental, but it immediately raises several questions.

1. Is it even possible to get to such a state?
2. If we claim that non-judgment is good, then judgment is bad. So aren't we judging judging (and hence contradicting ourselves)?
3. Is it even desirable to get to such a state?

Let's explore each of these questions.

As anyone who has looked within knows, judgments and reactions arise constantly and naturally. How could one ever get to the state of “No Second Arrow”? One possibility is to keep focusing away from judgments and reactions until the habit of being judgmental weakens and eventually dies off on its own. In order for that to happen, you would have to be willing to let the judging arise and pass in the background while you focused away on something else.

In other words, you would need a sort of “second order” non-judging—you don’t judge the fact that you’re judging. Clearly this strategy for non-judgment requires concentration power (which allows you to focus away) and equanimity (i.e., “second order non-judgment”).

Another possibility would be to turn toward the judgment itself. You could break the judgment into its components (mental image, mental talk, and emotional body sensation) and untangle them. You could then observe each component in great detail and open so fully to it that it eventually dissolves into a flow of energy.

Clearly, the turn toward approach would require a lot of clarity and equanimity.

These considerations address issues one (how do we get there?) and two (judging the judging). What about question three? Judgments have a role in nature. Should we even want to be free from judgment? The answer to this question depends critically on what we mean by “free from judgment.” Free could mean:

- Never experience judgment regardless of circumstance; or
- Have the *ability* to be without judgment when that’s appropriate; or
- Have the *ability* to not identify with judgments.

The first outcome is dysfunctional. The second and third are empowering.

This clears up issue three. What’s being sought is the ability to be non-judgmental. We’re not being asked to enter an eternal suspension of critical thought.

The “Non-Judgment 1” example above shows us that the attentional skills needed to be non-judgmental are exactly the attentional skills needed to be present-centered. This lends some credence to the notion that these skills may represent the basic dimensions of mindful awareness.

One last task remains—we need to look more deeply into the relationship between “non-judgment” and “equanimity.”

So far we’ve been assuming that “judgment” is a specific type of sensory event—certain kinds of reactive mental images, mental talk, and emotional body sensations. A case could be made that the specific mental images, mental talk, and emotional body sensations that constitute the sensory experience of judgment are in fact merely the tip of a deeper, more general phenomenon.

That deeper phenomenon is a kind of pervasive subtle self-interference within our sensory systems. It’s a kind of viscosity or stickiness within the nervous system itself. A very loose analogy might be made with electrical impedance. Think of sensory experience as being like a flowing electrical current. When the current wants to arise, the system briefly impedes that by pushing down (inductive reactance). When the current wants to die

away, the system momentarily impedes that by holding on a bit (capacitative reactance). Moreover, as the current is flowing, there is a kind of coagulating around it (ohmic reactance).

(A critical analysis of this metaphor will reveal fundamental flaws but hopefully it can serve to convey the general idea.)

A case could be made that this microscopic push and pull within the flow of sensory experience represents a deep and pervasive reactivity—a sort of “pre-mental judging.”

When we’re practicing “second order non-judgmentalness,” what we are in fact doing is allowing judgmental thoughts and emotions to come and go without pushing down as they arise, without holding on as they pass, and without tightening up as they continue.

Given these considerations I would claim that equanimity is a deeper and more general concept than “non-judgment.” (Once again, assuming that by non-judgmental we mean the absence of evaluative thoughts and emotions.)

Alternatively one might simply choose to broaden the definition of “non-judgment” to be synonymous with “equanimity.” In that case, we have:

- Surface equanimity – The absence of the “second arrow.”
- Deep equanimity – i.e., non self-interference within the nervous system itself.

To continues our (loose!) analogy with electric current, equanimity = admittance (the reciprocal of impedance).

Here’s a description of a way to cultivate both surface equanimity and deep equanimity with whatever comes up.

## Non-Judgment 2: Equanimity

Let visual, auditory, or somatic experience come and go. Let things activate or become restful as they wish. Let things coagulate or flow as they wish.

As soon as something wants to arise, let it. As long as something wants to last, let it. As soon as something wants to pass, let it.

You may create equanimity in your body by intentionally relaxing your body or create equanimity in your mind by letting go of judging thoughts.

**Above all, be sure to notice spontaneous equanimity should it occur. If you spontaneously fall into equanimity, notice that discomfort now causes you less suffering and that pleasure now gives you more fulfillment.**

## Analysis and Refinement

### Introduction to the CCE Paradigm

It would seem that three skills

- Concentration Power
- Sensory Clarity
- Equanimity

are necessary and sufficient for present-centered, non-judgmental attention.

Perhaps this core skill set could serve as a more fine-grained definition of mindful awareness. The acronym “CCE” might be a convenient handle for this paradigm of mindful awareness.

First, let's flesh out these skills a bit. Then we will be in a position to evaluate how well they fulfill our desiderata for a good definition of mindful awareness, i.e., to what extent is the “CCE Paradigm” for mindful awareness:

- Intuitive to the average person.
- Quantifiable in a rigorous sense.
- Mechanistically explanatory.
- Historically heuristic.

## Concentration

You can think of concentration power as the ability to attend to what you deem relevant. Let's look at how different circumstances involve different choices regarding what's relevant.

Say you would like to maintain a focused state as you drive your car through traffic. What's relevant to this situation?

- Visual: The sights of the road (and, occasionally, your dashboard).
- Auditory: The sounds of the road.
- Somatic: The physical sensations of being linked to the car—hands on the wheel, buns in the seat, etc.

(Strictly speaking, you might need occasional thoughts to aid the driving process.)

So if you were continuously attending to just the sights, sounds, and physical sensations of driving with no irrelevant thoughts or emotions, you would experience “car-driving *samādhi*.” You would find that this experience has two characteristics:

1. It's subjectively rewarding (i.e., fun).
2. It's objectively effective (i.e., less accident prone).

We will find that this is in general true. When you are in a state of high concentration, you both feel better and perform better.

Sometimes people think that to concentrate means to focus on something exterior (as in our driving example). But you can enter a highly-concentrated state while focusing on thoughts and emotions.

For example, say you wish to deconstruct a negative urge. What sensory categories would be deemed relevant to this endeavor?

- Visual: Mental images
- Auditory: Mental talk
- Somatic: Emotional body sensations

When the negative urge is present, you could maintain continuous focus on it by attending to how it comes up in terms of those elements. Applying sensory clarity and equanimity would allow you to be less caught up in them. Taken to the limit, this process could literally evaporate the urge.

On the other hand, suppose you wanted to get insight into how self arises. You could concentrate on those same sensory elements. In concert with clarity and equanimity, this could lead to insight into the nature of self.

What if you wanted to have a really deep and fulfilling experience of listening to music? What would you deem relevant? Lots of possibilities here.

- You could concentrate on the sound only and merge with the music.
- You could concentrate on the pleasant emotional sensations the music creates in your body.
- You could concentrate on the relaxed state the music creates within you.
- You could concentrate on the energy patterns the music creates in your body.

Any one of these will greatly increase your appreciation of the music provided that you intently concentrate on it.

People tend to have certain preconceptions around the notion of concentration.

- Spatial assumption: To concentrate means to focus on something spatially small (say, the breath at the tip of your nose).
- Temporal assumption: To concentrate means to hold one experience for a long time without interruption (maintain unbroken concentration on a mantra for, say, 20 minutes).
- Suppression assumption: To concentrate on a certain thing means to push everything else down/away.
- Effort assumption: To concentrate requires constant effort.

None of these assumptions are implied by the way I have defined concentration power.

- Spatial extent of concentration may be wide as well as narrow. For example, attempting to focus on your whole body at once builds/requires an expansive flavor of concentration.
- Momentarily high focus on whatever calls your attention can also build a taste of concentration. Indeed, according to Mahasi Sayadaw, such momentary penetrative concentration (*khanikasamādhi*) is one of the defining characteristics of Noting.
- To concentrate on a certain thing (selective attention) is not the same as trying to get rid of everything else (push down, push away). You can give the spotlight to a specific dancer without having to get the

other dancers off stage. Indeed, allowing distractions to come and go without push and pull is one facet of equanimity.

- It is true that learning how to concentrate may require a certain amount of effort but, once you've done enough practice, it becomes effortless and automatic. Remember the goal is to elevate your base level of concentration—i.e., how concentrated you are in ordinary life when you're not particularly trying to be concentrated.

## Clarity

There are three sides to sensory clarity:

1. Discrimination
2. Detection
3. Penetration

The first two are relatively straightforward. Appreciating the third may require some hands-on experience.

### ***Discrimination (or Resolution)***

To appreciate what I mean by discrimination, you can do an experiment. Say you know that a certain situation may end up being an emotional challenge (but you're not in that situation yet, so you're still okay). As you move into that situation, emotion may begin to arise.

Discriminate: What part of the emotion is in your mind? What part of the emotion is in your body?

Further discriminate: What part of the mental emotion involves images? What part of the mental emotion involves internal talk? What are the types of emotional sensations in your body? Where are they located?

At some point, the emotional experience may become intense. Try to keep track of it in terms of how much of what, when, and where. Hopefully you won't become overwhelmed but if you do, ask yourself the following question:

At the moment of overwhelm, was I still able to distinguish  
what part of my emotion was visual thought,  
what part was auditory thought,  
and what part was body sensation?

In most cases, the answer will be no. In other words, at the moment of transition between “I can handle this” to “I can’t handle this,” there will usually be a sudden and dramatic disappearance of sensory discrimination. The mental image, mental talk, and emotional body sensation are still there but suddenly you can no longer separate out what is what.

Using → to mean “implies,” we can represent this as

Overwhelm → Loss of sensory discrimination

This is an empirical truth. By that, I mean that it can be confirmed by repeatedly doing experiments like the one described above.

Amazingly, the reverse of the above statement is also true.

No loss of sensory discrimination → No overwhelm

But sensory discrimination can be strengthened by systematic practice. Symbolically:

Systematic and sustained practice → Stronger sensory discrimination

Taken together, this leads to an extraordinary conclusion:

Mindfulness Practice → More sensory discrimination → Less overwhelm in daily life

### ***Detection (or Sensitivity)***

The detection dimension of clarity involves:

- An intensity-related aspect: the ability to detect subtle faint signals.
- A time-related aspect: the ability to spot short, fleeting events.

Let's briefly examine each.

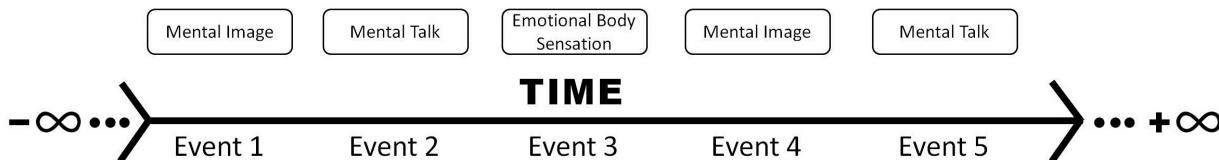
#### Faint Signals

In the previous section, I described the process of untangling the strands of mind-body experience. But you cannot untangle sensory strands unless you can consciously detect them. The relevant mental images and emotional body sensations are often below the threshold of awareness. That's one reason people act in regrettable ways without really knowing why.

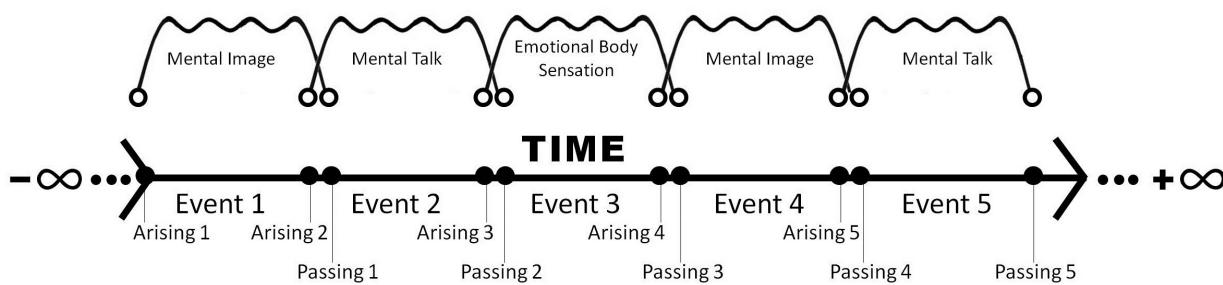
As your sensory clarity increases, you begin to detect (previously) subliminal mental associations and (previously) unconscious body sensations. Those sensory strands now become trackable. What is trackable is tractable.

Both detection and discrimination are key skills needed to eliminate emotional hijacking.

Let's go back to our initial example of untangling mental image, mental talk, and emotional body sensation. We could visually represent that untangling like this:



Now let's add the ability to detect subtle fluctuations and the ability to detect moments arising and passing.



Notice that we now have a much clearer picture. Not only are the individual events distinct but we are detecting:

- The moment when an event arises.
- The moment when an event passes.

This gives us insight into the wave nature of these experiences.

Moreover, we are starting to see that these events are not solid. Their surface contour is rippy and vibratory. Apparently the waves themselves are made up of wavelets!

#### ***Penetration***

Burmese Sayadaws (mindfulness masters) sometimes describe awareness as being like a dart or arrow. The object of awareness (a sound, a mental image, a body sensation, and such.) is like a target. During mindfulness practice, you hurl your attention into each sensory event giving the awareness enough momentum to briefly penetrate that target, i.e., know it through and through down to the tiniest level of detail.

According to these Sayadaws, the original meaning of the Pali word *satipatṭhāna* is “to penetrate with awareness”:

*sati* – awareness, attention

*paṭṭhāna* – to thrust against (from *sthāna* - stand [in the transitive sense] and *pra* – forth, out)

When I first heard mindfulness characterized this way, I didn't get it. I was even a bit put off by what seems to be an almost violent metaphor. Eventually, I came to experientially understand what the Sayadaws were trying to convey. Over the years, I've come up with a bunch of other metaphors, viz:

**The Thirsty Sponge.** Awareness is like water. The sensory event is like a sponge. The water soaks into the sponge, filling every fold and crevice.

**The Busy Bee.** Awareness is like a bee. The sensory event is like a flower. The bee buzzes around within the flower leaving no petal unknown.

**The Lake and the Torch.** Sensory events are like a lake. Awareness is like a flashlight.

The surface of the water represents the part of sensory event that's conscious. The water just below the surface represents the parts of the sensory event that are peripherally conscious. The mid-depth water represents sub-conscious neural processing. The water at the bottom of the lake represents unconscious neural processing.

Directing the flashlight towards a spot on the surface of the lake effects all four levels simultaneously.

What's on the surface becomes much clearer than it ordinarily is. What's just below now becomes as clear as the surface had been. What was subconscious now becomes peripherally conscious. What was utterly unconscious now becomes somewhat conscious.

Thus the subconscious/unconscious levels of processing get to *know themselves* a bit better. You (the observer directing the flashlight) still cannot directly see all levels but some photons of clarity have trickled down, giving those levels what they need to untie their own knots.

It's quite common for people to report that during formal practice, nothing much seems to happen. Yet they notice spontaneous and permanent improvements in perception and behavior in daily life. The penetration (or trickle down) paradigm described here is one way to explain why that happens.

English and other European languages have an interesting idiosyncratic usage around the verb "to know." It is occasionally used as a euphemism for "have sex with." This is sometimes referred to as "known in the Biblical sense." It represents the influence of Old Testament Hebrew on the languages of the Christian West.

Hebrew distinguishes three "flavors" of knowing.

*binah* – To know in a separating/distinguishing way.

*da'at* – To know in an intimate/penetrative way.

*chochmah* – To know in an insight/wisdom way

The second word is the source of our "carnal knowledge" euphemism.

What's interesting is how this maps on to mindfulness practice.

*Binah* is the clear acknowledging that separates the strands of sensory experience, distinguishing:

- Visual vs auditory vs somatic
- Inner vs outer
- Activity vs restful
- Stability vs flow

*Da'at* is the intent focusing that knows a given sensory strand through and through, right down to the vibrating void which is its substance.

*Chochmah* is the insights, the a-ha epiphanies that arise as a result of knowing in the other two ways.

As we have seen, the English word mindfulness can translate several Pali terms. Among them are *satipaṭṭhāna* (described above) and *vipassanā*. Let's look at the word *vipassanā*.

*Vi* is a prefix that modifies a verb.

*Passanā* means seeing.

As a prefix, *vi* can mean three things: "separate," "through," and "in a special way."

So *vipassanā* refers to a single process that involves

seeing separate, i.e., untangling (*binah*)

seeing through, i.e., penetrating (*da'at*)

seeing in a new special way, i.e., insight/wisdom (*chochmah*)

The three Hebrew words can also be put together to form a single acronym Chabad, the name of a prominent Hasidic organization.

## Equanimity

Equanimity is a fundamental skill for self-exploration and emotional intelligence. It is a deep and subtle concept frequently misunderstood and easily confused with suppression of feeling, apathy or inexpressiveness.

Equanimity comes from the Latin word *aequus*, meaning balanced, and *animus*, meaning spirit or internal state. As an initial step in understanding this concept, let's consider for a moment its opposite: what happens when a person loses internal balance.

In the physical world we say a person has lost balance if they fall to one side or another. In the same way a person loses internal balance if they fall into one or the other of the following contrasting reactions:

- Suppression – A (internal or external) sensory experience arises and we attempt to cope with it by stuffing it down, denying it, tightening around it, etc.
- Identification – A (internal or external) sensory experience arises and we fixate on it, hold onto it inappropriately, not letting it arise, spread, and pass with its natural rhythm.

Between suppression on one side and identification on the other lies a third possibility, the balanced state of non-self-interference...equanimity.

### How to Develop Equanimity

Developing equanimity involves the following aspects:

- Intentionally creating equanimity in your body;
- Intentionally creating equanimity in your mind; and
- Noticing when you spontaneously drop into states of equanimity.

***Intentionally Creating Equanimity in Your Body***

This is essentially equivalent to attempting to maintain a continuous relaxed state over your whole body as sensations (pleasant, unpleasant, strong, subtle, physical, emotional) wash through.

***Intentionally Creating Equanimity in Your Mind***

This means attempting to let go of negative judgments about what you are experiencing or replacing them with an attitude of loving acceptance and gentle matter-of-factness.

Let me give you a tangible example of how equanimity can be created.

Let's say that you have a strong sensation in one part of your body. As you focus attention on what is happening over your whole body, you notice that you are tensing your jaw, clenching your fists, tightening your gut, and scrunching your shoulders. Each time you become aware of tensing in some area, you intentionally relax it to whatever degree possible. A moment later you may notice that the tensing has started again in some area; once again gently relax it to whatever degree possible. If there are areas that cannot be relaxed much or at all, you try to accept the tension sensations and just observe them. As a result of maintaining this whole-body relaxed state, you may begin to notice subtle flavors of sensation spreading from the local area of intensity and coursing through your body. These are the sensations that you had been masking by tension.

Now that they have been uncovered, try to create a mental attitude of welcoming them or not judging them. Observe them with gentle matter of-factness, giving them permission to dance their dance, to flow as they wish through your body.

***Noticing When You Spontaneously Drop into States of Equanimity***

From time to time, as we are passing through various experiences, we simply "fall into" states of greater equanimity. If we are alert to this whenever it happens and use it as an opportunity to explore the nature of equanimity, then it will happen more frequently and last longer.

For example, let's say that you have been working with a physical discomfort. At some point you notice that even though the discomfort level itself has not changed, it somehow seems to bother you less. Upon investigation you realize that you have spontaneously fallen into a state of gentle matter-of-factness. By being alert to this and by exploring the state, you are training your subconscious to produce the state more frequently.

***The Effects of Equanimity***

Equanimity belies the adage that you cannot "have your cake and eat it too." When you apply equanimity to unpleasant sensations, they flow more readily and as a result cause less suffering.

When you apply equanimity to pleasant sensations, they also flow more readily and as a result deliver deeper fulfillment. The same skill positively affects both sides of the sensation picture.

Hence the following equation:

$$\text{Psycho-spiritual Purification} = (\text{Unpleasant experience} \times \text{Equanimity}) + (\text{Pleasant Experience} \times \text{Equanimity})$$

Furthermore, when feelings are experienced with equanimity, they cease to drive and distort behavior and instead assume their proper function of motivating and directing behavior. Thus equanimity plays a critical role

in changing negative behaviors such as substance and alcohol abuse, compulsive eating, anger, violence, and so forth.

You can also have equanimity with thoughts. You can let positive and negative thoughts come and go without push or pull. You can let sense and non-sense arise and pass without preferring one over the other. This will result in a new kind of knowing—a kind of wisdom function (*prajñā*). Equanimity with thought allows you to work through the drivenness to think. When compulsive eaters work through the drive to eat, they don't stop eating, they simply eat in a new and better way. When compulsive thinkers (i.e., just about everyone) work through the drive to think, they don't stop thinking, they just begin to think in a new and better way.

### ***Equanimity, Apathy and Suppression***

Equanimity involves non-interference with the natural flow of sensory experience. Apathy implies indifference to the controllable outcome of objective events. Thus, although seemingly similar, equanimity and apathy are actually opposites. Equanimity frees up internal energy for responding to external situations.

By definition, equanimity involves a radical permission to experience your senses and as such is the opposite of suppression. As far as external expression of feeling is concerned, internal equanimity gives one the freedom to externally express or not, depending on what is appropriate to the situation.

### ***Passion and Dispassion***

Passion is an ambiguous word with at least four meanings:

1. Deep poignancy of feeling;
2. Unhindered expression of feeling;
3. Dynamic behavior that rides on deep feeling; and
4. Suffering and behavior distortion caused by feeling that is experienced without sufficient equanimity.

Due to this ambiguity, one could validly claim that people become more passionate as they learn to be dispassionate—i.e., 1, 2, and 3 increase as 4 decreases.

### ***Physical Analogies for Equanimity***

Developing equanimity is analogous to:

- Reducing friction in a mechanical system (Equanimity = $1/F$ );
- Reducing viscosity in a hydrodynamic system (Equanimity = $1/\mu$ );
- Reducing resistance in a DC circuit (Equanimity = $1/R$ );
- Reducing impedance in an AC circuit (Equanimity = $1/Z$ );
- Reducing stiffness in a spring (Equanimity = $1/k$ ); and
- A solution being thixotropic as opposed to rheopectic. (Thixotropic substances, such as paint, thin out when they get stirred. By way of contrast, rheopectic substances, such as corn starch, thicken up when they get stirred.)

Extending these metaphors, perfect equanimity would be analogous to “superconductivity” within all your sensory circuits.

#### ***Another Synonym for Equanimity***

Love.

#### ***Equanimity in Christianity***

Early and medieval Christianity placed a great value on equanimity. Indeed it was considered one of the primary Christian virtues. This is because Christianity viewed itself as a path of radical spiritual cleansing (*katharsis*), with equanimity as the main tool for achieving this goal.

The church fathers, who wrote primarily in Greek, had three words for equanimity:

*Nepsis*: “Sober observation”

*Ataraxia*: “Freedom from upset”

*Apathia*: “Dispassion”(Note: In this usage, *apathia* does not equal apathy!)

In Christianity, the theory of purification through equanimity constituted a major branch of spiritual study known technically as “Ascetical Theology.”

#### ***Equanimity in Judaism and Islam***

One Hebrew word for equanimity is *hashlamah*, which is directly related to the word for peace (*shalom*) and the word for completeness (*shlemut*). In a sense, three Hebrew letters used in the spelling of these words (i.e., *shin*, *lamed*, and *mem*) contain the entire spiritual path: when one is fully present (*shalem*) and equanimous (*hashlamah*) with what is, then what is presents itself as God's peace (*shalom*).

The term Islam is usually interpreted to mean the peace that comes with surrender (Arabic *s-l-m* = Hebrew *sh-l-m*). It is the Arabic cognate of the Hebrew word *hashlamah*. Muslim could mean one who surrenders to the will of God or one who is at peace with whatever arises.

## **A Modern Metaphor**

Imagine a television receiver with several rather undesirable features. First, it has poor tuning characteristics. It doesn't latch on to a given channel very well. Instead it skips around uncontrollably. So it's difficult to watch any program long enough to follow the story. On top of that, the screen has really low-definition—the picture is unclear and blotchy. Finally, the wires are very thin so there is a lot of electrical impedance. This wastes energy, creates heat, and occasionally blows out your fuses.

That's the bad news. Here's the good news. The manufacturer offers a free upgrade! Well, almost free. You don't have to pay much money for it but you do need to invest some time and energy in order to qualify.

If you're willing to do that, the manufacturer will provide you with a new, state-of-the-art system. The new system has uber-stable tuning power, a hi-def screen, and superconducting circuits.

The analogy should be clear:

TV set	Consciousness
Good tuning	Concentration power
Hi-Def	Sensory Clarity
Low impedance	Equanimity
Heat	Unnecessary suffering
Energy waste	Your life vitality is dissipated through subtle, subliminal self-interference
Blow fuse	Lose it, i.e., become overwhelmed by a subjective suffering or do something in the objective world that you later regret
Manufacturer	<i>Natura sive deus</i> (as Spinoza would have said)

## Present Revisited: The Power of Absolute Now

### Absolute Now 1: Thin Breath

Many people make breath focus the centerpiece of their mindfulness practice. There are advantages and disadvantages to that approach. An obvious advantage is simplicity. A possible disadvantage is failure to utilize one of the Buddha's key discoveries: the power of systematically untangling the skein of selfhood.

So does that mean that a practice purely devoted to the breath will fail to bring liberation or enlightenment? It depends. If one's primary goal in breath practice is merely concentration, then, yes, you could hit a cul-de-sac. To get really deep results from breath practice, one typically needs to bring in clarity and equanimity factors. There are lots of ways to go about that. Let's explore one of them.

At the beginning of this section, I gave two examples of being present-centered based on selective attention to a specific category of sensory experience. The first involved focusing on everything other than thought. The second involved focusing on breath only. I mentioned in passing that some people might find the second approach a "tighter" experience of being in the present.

Is there a way to tighten the present-centeredness further, perhaps even to the razor's edge of Absolute Now? Let's consider.

There are many ways to focus on the breath. In the U Ba Khin tradition, one focuses on the tiny sensation of the breath going into and out of the nostrils. Clearly, this represents a contractive spatial focus. Does it also represent a contractive temporal focus? Yes, if a certain type of sensory clarity is brought into play.

Some people can distinguish two qualities of sensation created by the airstream through the nostrils. One quality is thick, coagulated and sort of ordinary. The other quality is paper thin, feather light— so subtle it's sort of there but not there. For convenience, let's call the former thick and the latter thin. The thin sensation is the actual, real-time touch (*phassa*) of the airstream. The thick sensation is a local reactive spread triggered by that touch.

Most anyone can detect the thick sensation. Some people develop enough clarity to detect the thin sensation and distinguish it from the microreactive thick sensation. In addition, one may have enough concentration to lock attention on that thin quality. This creates an extremely tight experience of being on the cutting edge of Absolute Now. Indeed, “cutting edge” is literally the traditional metaphor for this tight temporal focus. The airstream carries a sequence of tiny sensations that are traditionally compared to the teeth of a saw, each briefly touching the edge of the wood. Notice that concentration power is not the only factor involved in this example of presentness. Clarity is also needed to detect the thin sensation and distinguish it from the thick sensation, and clarity is needed to detect each tiny “tooth” as it touches the nostrils.

There may also be a visual analog of this somatic “thinness.” As one is focusing on the breath, a patch of brightness may appear on one’s mental screen. Within that brightness, it may be possible to distinguish a thin aspect from a thick aspect. The “thin brightness” is traditionally described as being like the reflection of the moon in a lake, vivid but without measurable thickness or ponderable mass. This is essentially the visual version of the thin breath described previously. The Pali term for this is *nimitta*. Christian monks sought a related phenomenon, the ungenerated (i.e., immaterial) light of Mt. Tabor.

But there’s more. As one focuses on the thin breath or thin light, “thinness” may spontaneously spread throughout the whole body bringing an “incredible lightness of being” (*passaddhi*) to it. The thinness may also invade visual and auditory experience. Eventually you come to realize a stunning sensory truth:

when experienced in terms of what's actually present in the Absolute Now—  
body, mind, sight, and sound are always feather light and paper thin  
...there but not there!

In this example, concentration power has combined with a certain kind of sensory clarity to create a very tight experience of Now. Does equanimity play a role? Actually, it does. The thick breath sensation is not strongly uncomfortable but relative to the thin breath, it “hurts.” Indeed, any thick sensation, even a pleasant one, hurts relative to the feather light taste of Absolute Now. Noticing that fact is part of what is traditionally called insight into the Noble Truth of suffering.

So how to focus on the subtle touch of Now when there’s so much uncomfortable thickness everywhere else? That’s where equanimity comes in.

There are two sides to equanimity:

1. The willingness to turn attention towards something. (If you’re driven to turn towards it, it’s not equanimity, it’s obsession.)
2. The willingness to turn attention away from something. (If you’re driven to turn away, it’s not equanimity, it’s denial.)

The “turn away” side of equanimity helps you to concentrate on the subtle experience of Absolute Now despite the coarse coagulations that may be erupting elsewhere.

So it would seem that “present-centeredness” is something that we may approach asymptotically. In our first example, focusing on physical sight, physical sound, and body sensation freed us from thoughts of past, future, and fantasy. In our second example, general breath focus brought us even closer into the moment. In our current example, a special form of breath focus brought us to Absolute Now.

### ***Absolute Now 2: Return to the Source***

Is it possible to experience the razor’s edge of Absolute Now without restricting your attention to something small and subtle like the “thin breath” described above?

How could that happen?

What would it be like?

Questions one and two have straightforward answers. Attempting to answer question three is a fascinating challenge. Let’s address each question individually.

Is it possible?

Yes. it is possible to experience Absolute Now with any focus range, including “whatever comes up.”

How does it happen?

It happens when you bring sufficient concentration, clarity, and equanimity to the sensory events in that focus range.

What’s it like?

Perhaps the easiest way to convey that is by following a sequence of closer and closer approximations.

I’m going to describe a series of experiences that you might go through as your mindfulness skills deepen over time. Not everyone will pass through all or only these stages. I’m just using them to give you the general idea. Also, although it’s presented as a single linear progression, people typically cycle through these stages many, many times, with the process becoming clearer at each iteration. Finally, when I use phrases like “Absolute Now,” I’m not implying that you are literally experiencing a mathematical point on the continuum of time. I only mean that *sensorially* you seem to abide in an Eternal Present.

In this example, I’m going to assume that your focus range includes all sensory experience—visual, auditory, or somatic, inner or outer. You’d go through something similar regardless of how broad or narrow your focus range might be.

Here's the big picture. (Remember, this is only meant to be suggestive!)

- |                               |                                 |
|-------------------------------|---------------------------------|
| 1. Just starting              | 6. Rhythmic arising and passing |
| 2. Got the form               | 7. Passing becomes rich         |
| 3. Detect coarse impermanence | 8. Arising becomes rich         |
| 4. Detect subtle impermanence | 9. Time begins to warp          |
| 5. Detect underlying wavelets | 10. Dance at the Source         |

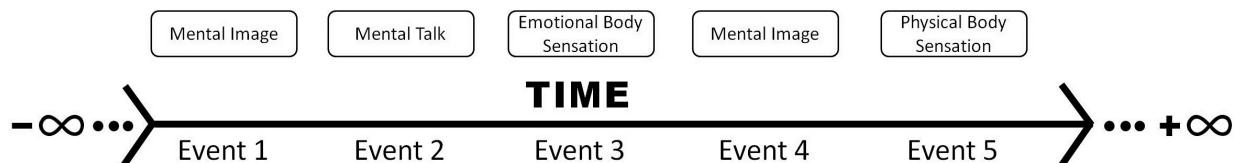
### 1. Just Starting

You attempt to keep track of what's going on but spend a lot of time wondering what you're supposed to be doing. You get lost in thoughts and preoccupied with bodily discomforts. You do a lot of thinking about thinking about thinking about....



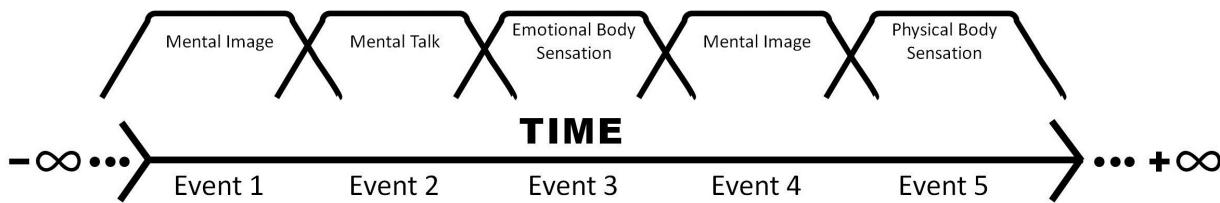
### 2. Got the Form

You're familiar with the form of the technique. You can settle in and just do it. You track the sequence of sensory experiences in a matter-of-fact way without "tripping out" on the process too much.



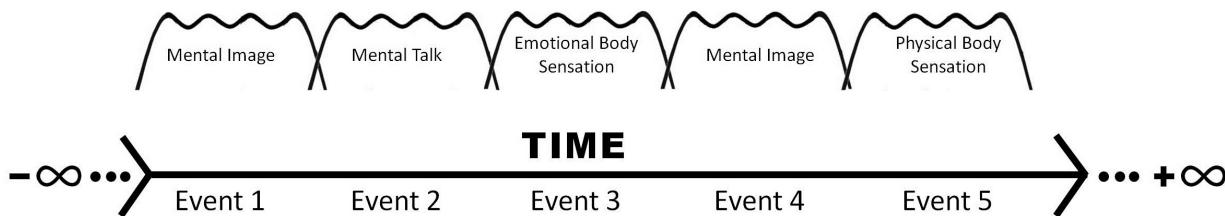
### 3. Detect Coarse Impermanence

You start to get a sense that experiences come and go.



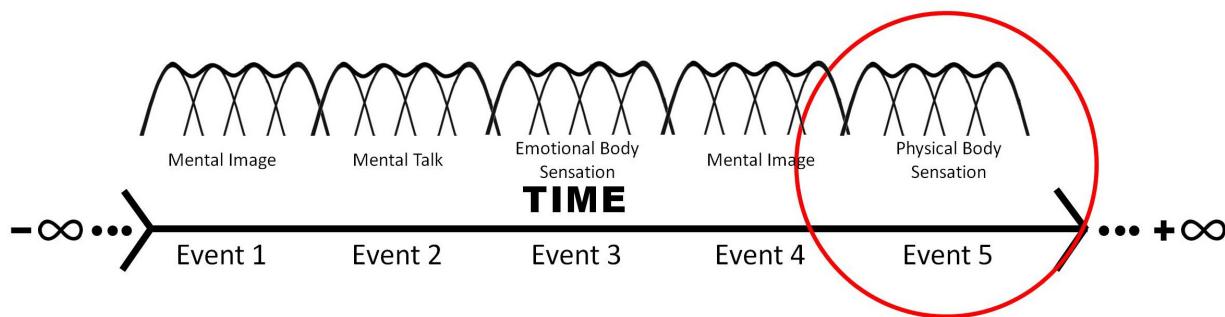
### 4. Detect Subtle Impermanence

The individual sensory events are themselves rippy and vibratory.



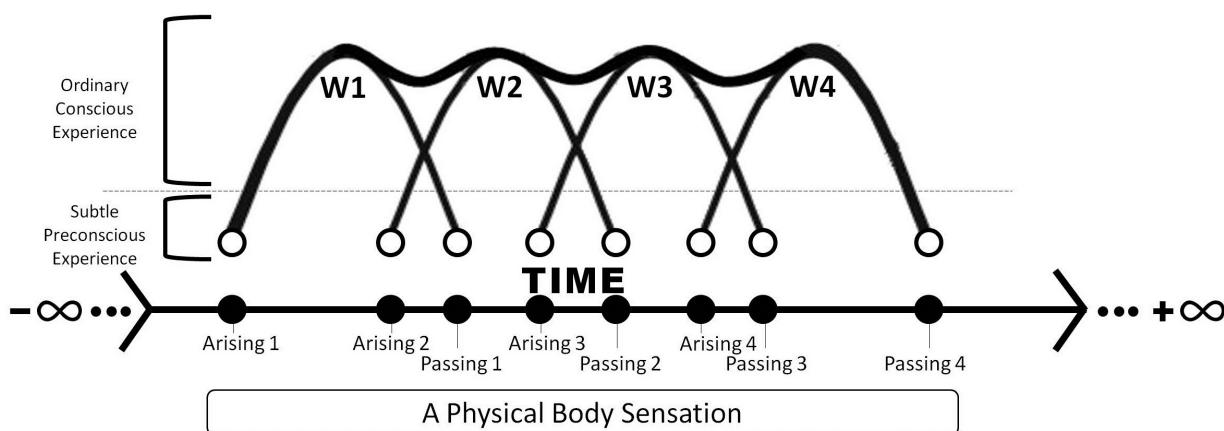
### 5. Detect Underlying Wavelets

Each vibration and ripple has its own arising and passing. Sensory events are a sort of “Fourier Synthesis” of component frequencies.



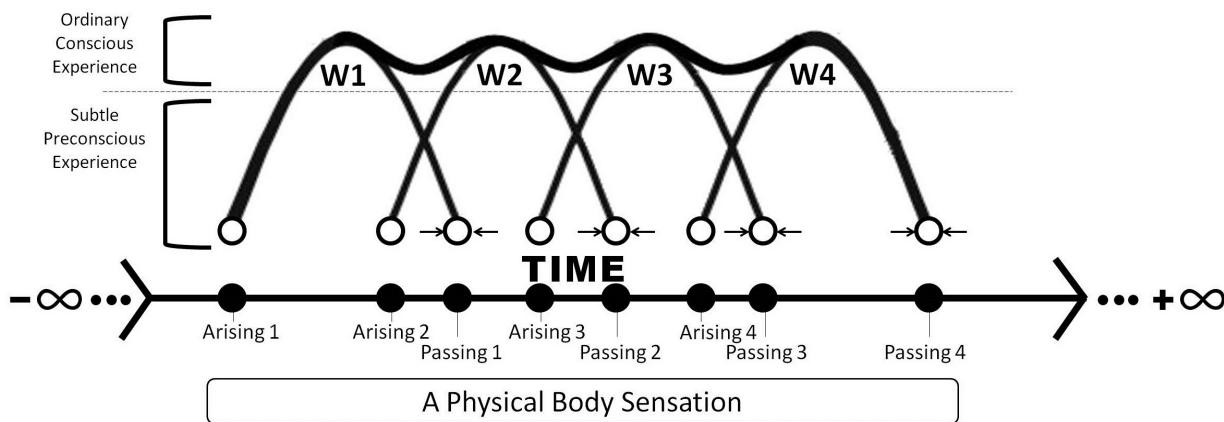
In the following diagrams, we will focus just on the event in the circle above to keep things simple.

## 6. Rhythmic Arising and Passing



The circles represent “Zero”—the Nothingness from which each wavelet arises and to which it returns. The dashed line represents the boundary between preconsciousness and consciousness experience. (Preconsciousness experience has become conscious at this stage.) W stands for wavelet.

## 7. Passings Become Rich

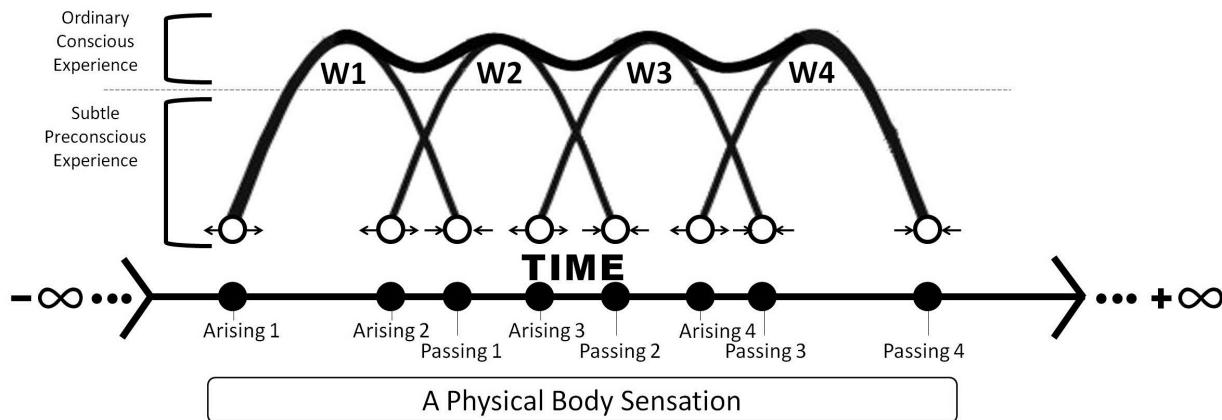


The Nothing to which each wave and wavelet returns ( $\rightarrow O \leftarrow$ ) becomes rich, providing:

- Tranquility
- Safety
- Fulfillment
- Love

Notice also that less and less does experience need to be “born,” i.e., arise into surface events. (Ordinary surface experience is less salient. Subtle preconscious experience now dominates awareness.)

## 8. Arising Becomes Rich



The outward directed arrows ( $\leftarrow\circlearrowright$ ) indicate the pulling apart, the polarizing, of Nothing into expansive and contractive forces.

The inward directed arrows ( $\rightarrow\circlearrowleft$ ) indicate the reuniting (mutual cancelation) of those forces.

Experiences arise in the cleft created when Nothing divides into future (expansion, *yáng*) and past (contraction, *yīn*). They disappear when that cleft collapses, reuniting future and past into the Absolute Present of Nothing.

This special Nothing is known to contemplative traditions around the world.

Latin – *nihil per excellantiam* (Western Christianity)

Greek – *kenosis* (Eastern Orthodoxy)

Hebrew – *ayn* (Kaballah)

Arabic – *fana'* (Sufism)

Spanish – *nada* (St. John of the Cross)

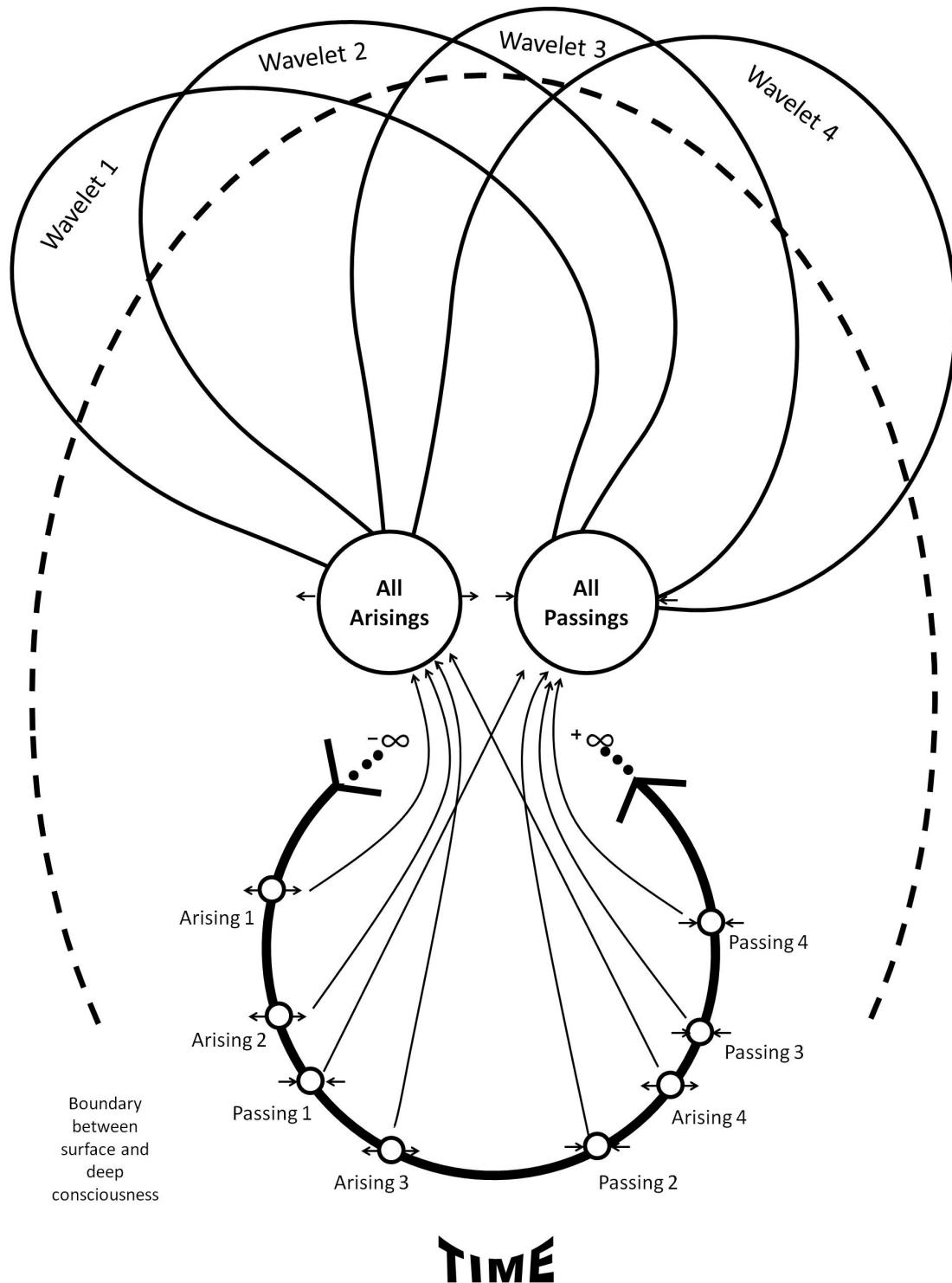
German – *nichts* (Meister Eckhart)

Chinese – *xū* (Daoism)

Sanskrit – *nirodha* (Hinduism, Buddhism)

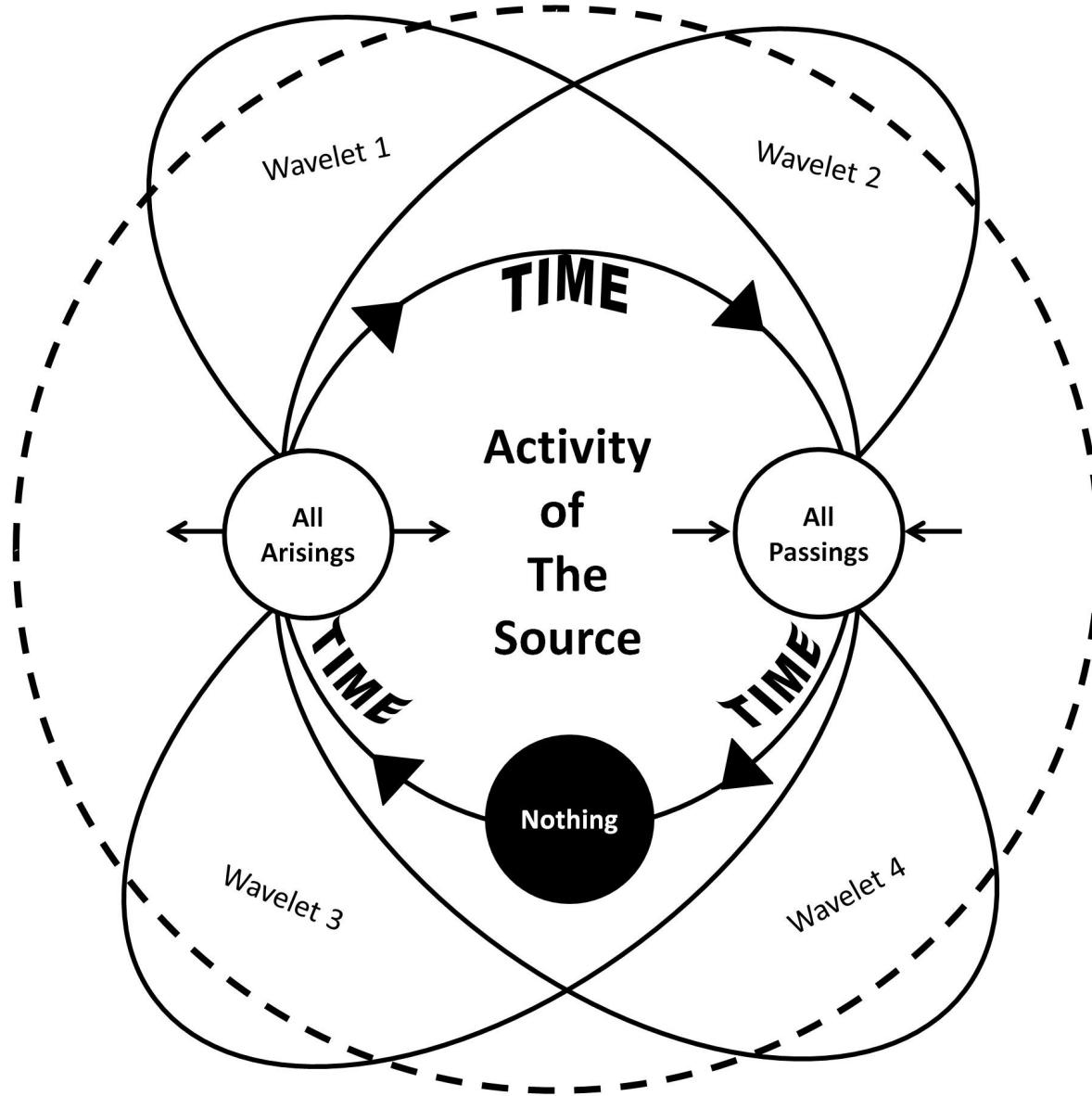
Sanskrit – *śunyatā* (Buddhism)

## 9. Time Begins to Warp



All arisings tend to coalesce into a single polarization. All passings tend to coalesce into a single neutralization. Subjective time begins to feel less like a linear extension. Very little is happening and everything is happening.

## 10. Dance at the Source



One abides in a metaphoric black hole outside time and space, participating in the pure flow of the Source.

The One Nothing is metaphorically a gravitational singularity. The boundary between surface and deep consciousness (represented by the dotted line) is metaphorically the Event Horizon.

As the 16<sup>th</sup> century Spanish poet St. John of the Cross put it:

*Que bien se yo La Fonte  
Que mana y corre  
Aun que es de Noche.*

*How well I know The Fountain  
That gushes and flows  
Although in the Night.*

Or as the British poet T.S. Eliot described 300 years later:

*At the still point, there the dance is,  
But neither arrest nor movement.  
And do not call it fixity,  
Where past and future are gathered.*

#### **A Final Comment**

These last two examples of “Absolute Now” show that present-centeredness is not as innocuous as one might initially think. Taken to the limit, it can shake the somethingness of self and world.

## **IV. DOES THE DEFINITION WORK?**

### **Intuitive?**

Defining mindful awareness in terms of present-centered non-judgmentalness has the advantage of being both simple and relatively easy for the average person to relate to. They sort of get an idea of what you're referring to right away. And if they start asking pointed questions like "but aren't thoughts also in the present?" or "aren't you judging judging?", answers like the ones provided previously should clear up the confusion. So we could say that this common definition more or less works in terms of being "intuitive."

How about the concentration, clarity, and equanimity formulation? The first thing that strikes us is that this sounds much more complicated and abstract, so maybe it won't score well on intuitiveness. However, another way to look at the situation is to say that it *is* intuitive but in a more fine-grained way.

### **Initial Buy-In**

Here's what I mean by fine-grained. When initially describing mindful awareness to a person, it's useful to assume that they probably already have at least some experiential knowledge of concentration, clarity, and equanimity or they have experiential knowledge of the problems that can result from lacking concentration, clarity, and equanimity. This yields six possibilities.

Regarding concentration

1. The person has at some time in the past spontaneously fallen into a deep concentrated state and noticed how things went better.
2. The person has noticed that inability to concentrate can be a problem.

Regarding sensory clarity

3. The person has at some time in the past spontaneously fallen into a state of heightened sensory vividness.
4. The person has noticed that when sense strands get tangled, "flooding" occurs.

Regarding equanimity

5. The person has at some time in the past spontaneously fallen into a state of non-fighting with discomfort.
6. The person has noticed that grasping around pleasure can interfere with enjoying it.

Imagine you're a teacher of mindfulness and you're trying to make it relevant to a total novice. The dialogue might go something like this:

"The easiest way to understand mindful awareness is to look back on your own experience. Have you ever experienced anything like this?

- In a certain situation, you suddenly fell into a state of high focus. Things slowed down, you were totally in the groove, in the zone. As a result, you were able to respond with great effectiveness.

If you ever experienced anything like this, then you know what a temporary state of high concentration is. With practice, you can develop the ability to get into that state anytime you want.

- Your senses suddenly became unusually bright and clearer. You could detect great detail and everything seemed unusually vivid and rich.

If you ever experienced anything like this, then you know what a temporary state of high sensory clarity is. With practice, you can develop the ability to get into that state anytime you want.

- You were going through some physical, emotional, or mental discomfort. For some reason you stopped fighting with the discomfort and just let it flow through you. When you did that, the sense of problem or suffering became much less (or perhaps even totally vanished).

If you ever experienced that, you know what a temporary state of equanimity is. With practice, you can develop the ability to get into that state anytime you want.

If you answered yes to any of the above, then you already have some understanding of how developing more mindfulness could improve the quality of your life.

Now, let's consider the reverse situations....

Have you ever experienced anything like this?

- There was something important that didn't go well because of your lack of ability to keep focused on it.

If you ever experienced something like this, then you're aware of the negative effects of lacking concentration power. Through systematic practice, you can avoid such problems.

- You went through an experience where so much was happening so fast that you couldn't keep track of it. What part is body? What part is mind? What part is emotion? As a result, you became overwhelmed, flooded, and that overwhelm caused you suffering or made you do something you later regretted...or both.

Such experiences of sensory chaos are examples of the problems that can develop if you lack sensory clarity. Through systematic practice, you can avoid such problems.

- There was something pleasant in your life but you were so worried about losing it or not getting enough of it that you couldn't really enjoy it.

If you ever experienced something like this, then you know how a lack of equanimity can decrease the satisfaction you derive from pleasure, or perhaps even turn the pleasure into frustration. In other words, you've experienced the negative results of non-equanimity. Through systematic practice, you can avoid such problems."

Everyone knows that a skill can be dramatically improved through systematic training. Once a student understands that the components of mindful awareness are cultivatable skills, it's easier for them to believe that those skills could be improved through practice. Moreover, they probably already know from their own experience that at least one of these component skills makes things better.

Taken together, these considerations make the endeavor of mindfulness seem reasonable to the average person. They have probably already seen at least some of the dots. They just never clearly connected them.

## Long Term Motivation

Researchers in the field of positive psychology have shown that a highly focused state is *per se* rewarding even if what's focused on is not intrinsically interesting or pleasant. I would state this somewhat differently: Concentration has its own distinctive "reward flavor."

So does equanimity. In the case of equanimity, we might characterize that reward as the "taste of purification." You sense that, because of the equanimity you're bringing to this moment of experience, blockages from the past are breaking up. Consequently, every moment of your future will be incrementally happier.

Sensory clarity also has an intrinsic reward flavor: the taste of vividness.

Here's the whole picture:

Attention Skill	Reward Flavor
Concentration	Taste of Focus
Clarity	Taste of Vividness
Equanimity	Taste of Purification

As one's mindfulness skills grow, these reward flavors become increasingly tangible and immediate. Immediate and predictable reward creates the situation for operant (Skinnerian) conditioning to occur. The animal levels of brain architecture (i.e., the neuronal circuits themselves) are being trained to function in a new way—more mutual cooperation and less mutual impedance. This reflects macroscopically in a more fluid experience of body, mind, and world. (One of the Buddha's titles was "the unexcelled trainer of the animal within the human.")

Once one's palate matures to the point of clearly tasting these reward flavors, growth snowballs. A positive feedback loop now exists.

Sharper skill → Stronger reward → Sharper skill → ....

As is well known, positive feedback creates an exponential growth curve:

$$\frac{dM}{dt} = kM$$

(Where M stands for base level of mindful awareness)

Thus, we see that the concentration, clarity, and equanimity paradigm can be useful for both getting initial “buy in” and maintaining long term motivation.

## Quantifiable?

Okay. Let me say it straight up. By quantifiable, I mean something more rigorous than self reports. I mean something operational—ideally something measurable in biophysical terms.

One common assumption is that mindful awareness is a scalar, a one-dimensional phenomenon. But it may be vector-like, i.e., multidimensional. In that case, several questions immediately come to mind:

- How do we capture all and only the key features of mindful awareness in a (presumably small) set of components?
- How do we measure those components?
- Can we ascribe a norm (overall size) to that vector in a natural way?

I believe that concentration, clarity, and equanimity capture the key features of mindful awareness but are they measurable by the rigorous standards of science? Not as things stand now. So my definition fails to be quantitative. However, I would suggest that as our knowledge of neurophysiology grows, concentration, clarity, and equanimity may be good candidates for agreed-upon operational definitions.

Here's why.

## Concentration Power

Concentration power is essentially selective attention. A lot of basic science has been done on attention. Its underlying networks have been somewhat classified and can be probed using standard tasks.

It should be possible to devise a battery of standard performance tasks that gauge a person's state and trait levels of concentration ability, providing an operational definition for concentration power (or at very least those aspects of concentration that are relevant to the endeavor of mindfulness).

## Sensory Clarity

Sensory resolution is routinely gauged through standardized tasks, i.e., somatic spatial resolution using a two point discriminating task or temporal resolution using a flicker threshold task. (In one Harvard study, a group of subjects showed increase in flicker frequency resolution after a brief period of mindfulness training. This overturned a then current assumption that flicker frequency resolution is genetically hard wired.)

Moreover, the ability to note the very instant when a sensory event arises and the very instant when it passes are important themes in mindfulness practice. It should be possible to devise operational tasks that measure that.

Admittedly, other more subtle forms of sensory discrimination power (such as distinguishing visual thought from auditory thought or detecting time derivatives) may be more difficult to gauge by objective tasks, but with some imagination...?

## Equanimity

Equanimity seems to be inversely related to what some neuroscientists call stickiness, i.e., equanimity is a kind of “non-stickiness.”

There is a quantifiable physiological phenomenon called the “attentional blink.” This may measure stickiness. If so, the inverse of this measure would quantify (at least one facet of) equanimity.

## Explanatory?

Mindfulness seems to work well for a wide range of applications from stress reduction through pain management, addiction recovery, to self discovery and spiritual awakening. Each specific application could be thought of as a sort of chemical reaction.

Issue + Mindful Awareness → Improvement

The issues are not necessarily problems. Mindfulness is germane to the experience of pleasure as well as pain. An example of this would be maximizing fulfillment for a given type of pleasure (such as dining, listening to music, making love, and so forth.).

If we choose to define:

Mindful Awareness = Concentration Power + Sensory Clarity + Equanimity

Then our formula becomes:

Issue + Concentration Power + Sensory Clarity + Equanimity → Improvement

This formulation immediately suggests that we could ask two types of questions:

- How do each of the core skills individually contribute to the observed effect?
- In what ways do the three components synergistically potentiate each other?

What we're seeking here is a detailed hypothesis with regard to reaction mechanisms, something analogous to the “curved arrow” diagrams used in organic chemistry.

I like to group the effects of mindfulness into five broad headings:

- Reduction of physical or emotional suffering

- Elevation of physical or emotional fulfillment
- Achieving deep self knowledge
- Making positive changes in objective behavior
- Developing a spirit of love and service towards others

Under each of these headings come numerous specific applications. Each application can be given a specific explanatory mechanism in terms of how concentration, clarity and equanimity enter in. There is not space here to present hypotheses for each of the five categories. Instead, in Section V I describe in detail one specific case: how mindfulness reduces suffering. This should suffice to give the general flavor of what I'm thinking when I say that the "CCE definition" of mindful awareness is mechanistically explanatory.

## Historical?

I believe that the CCE paradigm gives us a convenient framework for viewing mindfulness through history and across cultures.

### Pre-History

When we consider the big picture of human history, what strikes us stunningly is the fact that the great bulk of human history is pre-history. Averaged with regard to time, the modal human experience is overwhelmingly preliterate and tribal.

One way to characterize pre-literate tribal life might be:

- Life was simple.
- Life was uncomfortable.
- Life was full of things one could not understand.

Simplicity means less to think about, which might push a person to be more focused on the moment (concentration and sensory clarity). Discomfort that cannot be removed could push one toward bodily equanimity (body stops fighting with pain, cold, fatigue, bugs, etc.). Not being able to figure out how nature works might push one's mind toward mental equanimity (surrender to the mystery, mind stops struggling to get answers). In other words, the daily life of our remote ancestors had built into it certain forces that might push people in the direction of mindful awareness.

Think of the Eskimo hunter squatting for days in the freezing cold, spear in hand, waiting for a seal to poke its head through an ice hole—knowing that if his attention waivers for a moment, he and his family may go hungry. What sort of state would he tend to enter?

Such was daily life. But daily life was punctuated with ceremonies and many of those ceremonies involved physical ordeals (think sweat lodge, vision quest, sundance, flesh offerings, and such).

During such ceremonies, everything was intentionally made more simple, more uncomfortable, and more mysterious. What sort of state would this tend to induce? Certainly equanimity and focus but also possibly a “cleansing of the doors of perception.”

Does all this mean that our remote ancestors were mindfulness adepts? Perhaps not. But it does support the notion that mindfulness is in some ways natural for humans.

Other forces would have been present among ancient humans pushing them in a different direction.

- If you don't understand something, try to figure it out by observing, measuring, theorizing.
- If you're uncomfortable, construct objects, devices, tools, and structure that make life easier.

Millennia of humans trying to figure stuff out has given us the gift of science. Millennia of humans trying to build better stuff has given us the gift of technology. As a result, our physical existence has become more comfortable and nature seems less mysterious. On the other hand, daily life has become more complicated, and this tends to militate against spontaneous states of high focus and deep equanimity.

Our current attempt to understand mindfulness using the tools of science (and perhaps improve its acquisition through technology) could be looked upon as a meeting of the forces that make us human.

We're trying to figure out and improve the state of Just Be Present and Accept!

Someone might object, saying “why bother?” My reply to that would be “so that all humans can someday experience the best of both worlds”:

- Know how nature works;
- Know how to make cool and useful stuff; and
- Be deeply happy, independent of any of that.

## Pre-Modern History

The fact that base level concentration ability could be elevated through systematic practice was probably first discovered in pre-Buddhist India. Sanskrit contains two common words for an intentionally cultivated highly-focused state: *samādhi* and *dhyāna*.

Either through diffusion or independent discovery, cultivated concentration came to be recognized within the major old world civilizations. This is evidenced by the fact that those civilizations have technical terms denoting intentionally cultivated states of high focus.

- Greek: *hesychia* (Eastern Orthodox Christianity)
- Latin: *recollectio* (Roman Catholic Christianity)
- Arabic: *Dhikr* (sometimes *Zikr*) (Islamic Sufism)
- Hebrew: *kavana* or *devekut* (*dvekus* among “*Dosim*”) (Jewish Kabbalah and Hasidut)

- Chinese: *shōuyì* (Daoism)
- Chinese: *jīngzuò* ([Neo] Confucianism)

In modern English, colloquial terms for a state of high concentration is “be in the zone.” Typically one hears this in the context of performance—music, sports, dance, and so forth. Also researchers within the positive psychology movement have shown that a state of high focus is intrinsically rewarding regardless of what is being focused on. They referred to that situation being in a “flow state.” That term has caught on and is now readily understood by most people (note however that within my Unified Mindfulness System, “flow” has a different technical meaning).

The difference between a “zone state” or a “flow state” and things like *samādhi*, *recollectio*, and such is that the former are spontaneous and sporadic while the latter are cultivated and habitual.

The beginnings of equanimity can be found in the widespread practices of asceticism and shamanic ordeal. It is also adumbrated in certain Greek philosophies such as Stoicism (*ataraxia*) and Skepticism (*epochē*), and the Christian practice of *apatheia*. However, these practices often conflate equanimity with non-expressiveness, white-knuckle endurance, and indifference to circumstances, and thus may fail to capture its essence (which I believe to be the training of one’s sensory circuits to function without self-interference).

So much for concentration and equanimity. What about the sensory clarity piece? When did that enter the picture? There are hints of it in the Christian practice of *nepsis* (sober observation). But the really big break through occurred about 2,500 years ago in North India with the discoveries of Prince Siddhartha Gotama, known to history as the Buddha.

Painted in ridiculously broad strokes, the Buddha’s contributions can be analyzed in terms of four processes:

1. He rejected certain things from his culture of birth.
2. He preserved certain things from his culture of birth.
3. He modified certain things from his culture of birth.
4. He discovered things that apparently had not been clearly formulated in any previous culture.

Among the things he rejected were:

- Social status based on birth.
- The central role of authority as a basis of knowledge.

Among the things he preserved were:

- Systematic focus exercises that develop high concentration power (the so called “absorptions”).

Among the things he modified were:

- Asceticism (*tapas*)

Prior to the Buddha there existed in India the belief that intentionally exposing oneself to discomfort purifies consciousness. The paradigm was:

The more it hurts,  
the more it purifies.

The Buddha both extended and refined this paradigm.

The more equanimity (non-grasping) you bring to pain or pleasure,  
the more it purifies.

Meeting small pain or pleasure with big equanimity can result in big perceptual and behavioral changes. In other words, brute-force self torture is not necessary and, in some cases, can be counterproductive.

To sum it up so far: The Buddha retained the tradition of elevating base level concentration through systematic exercises and he refined the theory and practice of asceticism into the theory and practice of equanimity. He encouraged a reasonable life style ("Middle Way") combined with the systematic reduction of craving and aversion. Craving and aversion can be seen as two sides of non-equanimity.

Among the new things he discovered were:

#### ***The Four Noble Truths***

Suffering (*duhkha*) has necessary cause (*samudaya*, essentially, non-equanimity). There exists an intervention (*mārga*) that is sufficient to eliminate that cause. Thus freedom from suffering (*nirvāṇa*; happiness independent of conditions) can be achieved.

#### ***Untangle and Be Free***

The commonly held perception—"there is a thing inside of me called self"—is a kind of optical illusion caused by the tangling of various mental and somatic sensory strands. Once these sensory strands get untangled (through the practice of sensory clarity), the illusion goes away.

Just for the fun of it, I sometimes imagine the Buddha having a discussion with a typical North American—let's call him Joe.

**Buddha:** Joe! What do you think would happen if, as you go about daily life, you could be aware of exactly what you were experiencing at each moment: What part is physical sound and what part is mental talk; what part is physical sight and what part is mental image; and what part is physical body sensation and what part is emotional body sensation?

**Joe:** First of all, that's way too much detail for anyone to keep track of. If I tried to be aware of all that, I'd be paralyzed and unable to do anything else. Even if I could, it would probably be incredibly agitating and effortful.

**Buddha:** Joe, remember when you first learned to drive your car? You had to think about everything and it was very effortful and agitating, wasn't it?

**Joe:** Yeah! It took a huge effort and a lot of thinking just to pay attention to all the mirrors and look in all the directions, pay attention to the sounds, and operate the steering wheel, the clutch and the accelerator.

**Buddha:** But eventually you learned how to do it without all that effort and thinking, right?

**Joe:** Yeah, in six months I could listen to the radio while talking to someone and still drive the car perfectly.

**Buddha:** So suppose you systematically practiced the kind of awareness I just described until it was on autopilot? What effect do you think that would have?

**Joe:** I don't know. Probably nothing. After all, the experience would still be the same as before. I don't see how, by just being more clear about it, it would make that much difference.

**Buddha:** Ah, but that's my great discovery. It makes a huge difference!

**Joe:** Can you describe that effect?

**Buddha:** It's hard to put into words but the upshot is that you'll be very, very happy.

**Joe:** Why should I believe you?

**Buddha:** You don't have to believe me. Try it and see for yourself.

To sum it up, a case could be made that the Buddha discovered mindfulness—if by mindfulness we mean the integrated package of concentration, clarity, and equanimity. As previously detailed, the value of high concentration had been widely known in human cultures. The beginnings of equanimity are adumbrated in ascetical practices, shamanic ordeals, stoic philosophy and so forth. The importance of continuously and carefully observing had been somewhat recognized in the Christian practice of “sober observation”. But it was apparently the Buddha who first realized the true potential of sensory clarity.

What sets mindfulness practices apart from other forms of meditation is its clear conceptual formulation of equanimity and its emphasis on sensory clarity. Conversely, to the extent that any form of meditation (or other growth process) is capable of significantly elevating a person's CCE skills, to that extent it is a MAP regardless of where it came from or what name it's known by.

These considerations raise two questions for me, one possibly disturbing and the other somewhat intriguing.

The disturbing question is:

Is the current mindfulness movement really just crypto-Buddhism sailing under a deceptive flag?

The intriguing question is:

To what extent is Western psychology a mindful awareness practice?

We'll address the first question here and delve into the second question in the next section.

So, is the mindfulness movement really just crypto-Buddhism? I would argue that this is not the case. But first we need to be clear about what we mean by “Buddhism.”

Buddhism could refer to

- The opinions, discoveries, and formulations of the historical Buddha himself.  
Or
- Twenty-five hundred years of philosophy, customs, beliefs, rituals, and institutions that have developed in Asia inspired by the Buddha’s teachings.

Clearly, modern secular mindfulness interventions retain little traces of the latter. Timing gongs, some of the sitting gear, and some of the posture options are of Asian origin; that’s about it.

But how about Buddhism in the sense of ideas held by the historical Buddha? There is some carryover here but also some significant difference. I think of the Buddha not as a religious figure but as the world’s first proto-scientist of deep human happiness. Great scientists can be wrong about things and their formulations can be incomplete or lack rigor. That fact does not in the least detract from their greatness or the importance of their findings. If we simply think of the Buddha as an early scientist, then the fact that some of his ideas are present within modern mindfulness should not bother the hard-nosed empiricist. On the other hand, the fact that modern mindfulness significantly differs from his world view need not offend traditional Buddhists.

Let’s compare and contrast.

<b>The Buddha</b>	<b><u>Modern Mindfulness (as I would like it to be)</u></b>
Attention skills can be systematically cultivated.	Yes to that.
Applying those skills can completely eliminate suffering for an individual.	Probably, yes. But certainly at the very least dramatically reduce it.
Attention skills can aid self discovery at the deepest level.	Yes to that.
We reincarnate through multiple lives.	It ain't necessarily so.
The gods and their heavens objectively exist.	It ain't necessarily so.
There is no creator God.	It ain't necessarily so.
Psychic powers are objectively real.	No compelling evidence (yet).
Ethical conduct and good character are important for human beings.	It IS necessarily so.
The nature of existence is suffering.	$\text{Suffering} = \frac{\text{Discomfort}}{\text{Mindful Awareness}}$ <p>Since mindful awareness is relatively rare, needless suffering is a dominant theme in human existence.</p>
There is no thing called a self.	MAPs can definitely lead to that experience, but some practitioners may choose to describe it with a different paradigm, such as: Big Self, True Self, Elastic Self, Oneness, and so forth.
Everything is impermanent.	Sensory experience fluctuates by nature.
Impermanence is linked to suffering.	Yes, but sensory impermanence can also be given a “positive spin” as a pleasant flow of energy.
When you view sensory experience with stable, high resolution, hands-off attention for a long time, you see what was really always there.	<p>That's probably for the most part right. On the other hand, cultivating those skills to the limit may itself change things a bit. But that's okay because the goal is practical—industrial strength human flourishing. Among various historical candidates, mindfulness offers the biggest effect for the smallest assumption, i.e.:</p> <p>Effect size/Belief requirements = Max</p>

## Modern History

Now let's talk about modern history. By modern history I mean the last 100 years or so. How does mindfulness in general and the CCE paradigm in specific relate to contemporary culture? Three facets come to mind.

1. Interactions with Western religions
2. Interactions with the hard sciences
3. Interactions with psychotherapy and psychology

### *Interactions with Western Religions*

As you'll recall, I conjectured that for some of our remote ancestors, entering concentration, clarity, and equanimity states would have been a natural response to their life situation. Equally natural would be to improve their life situation through experimentation and craftsmanship. This latter trend facilitated the rise of literate civilizations. Several of those civilizations developed systematic ways of cultivating some or all of the CCE skills. Usually this took the form of a contemplative core within an organized religion. Among the Western religions, that contemplative core has been progressively eroded by a series of historical events—eroded to the point where many Westerners are hardly aware it ever existed.

The Mongol invasion of Persia hastened the end of Islam's Golden Age. After that, Islam became increasingly fundamentalist, which in turn led to a decline of Sufism, its contemplative core. The traditional Roman Catholic Prayer of Quiet/Recollectio declined in the dogma-centered atmosphere of the Post-Trent Church. The Eastern Orthodox version of that, Hesychasm, continued to be vigorous especially in Russia but declined after the rise of Communism. Many Jewish Kabbalistic masters were killed in the Holocaust. Our own times have seen yet another wave of Islamic fundamentalism resulting in yet further persecution of Sufism.

But our times have also seen a dramatic turn of events—a significant revival of Christian and Jewish meditation. One of the main factors behind this has been the ongoing dialogue between Western contemplative practitioners and Buddhist meditation adepts. What was lost in the West were the nuts and bolts of how one goes about meditation. But Buddhist masters are all about nuts and bolts, and many of them are quite happy to equip people with generic skills without requiring that they interpret their experiences in the language of Buddhism. So we now have Catholic priests who are also certified Zen Masters, and Orthodox Rabbis who regularly attend mindfulness retreats.

This represents a reversal of the longstanding trend outlined above. As such, it is of undeniable historical significance.

### *Interactions with the Hard Sciences*

Here in outline form is how mindfulness is interacting with the hard sciences.

- I. The practical side (mostly neuroscience)
  - A. Scientists are researching mindfulness:

1. From a clinical perspective, determining its efficacy for various applications such as pain management, addictions recovery, effects on the immune system, and so forth.
2. From a basic science perspective, collaborating with science-savvy mindfulness adepts to design experiments that probe basic mechanisms of consciousness.

B. Scientists are practicing mindfulness:

1. Because it helps them be a better person. (CCE → Happier, more admirable person.)
2. Because it helps them be better scientists. (CCE → More creative insights. Moreover, better human → more harmonious teamwork.)
3. Because it allows them to combine in one person the power of two quite different approaches—systematic subjective exploration (first-person approach) and rigorous objective experimentation (third-person approach).

II. The philosophical side (mostly physics)

In this article, I frequently make the claim that acquisition of mindfulness skills belongs to a dimension independent of one's philosophy, beliefs, worldview, and such. It is for that reason that devout Christians or Jews can feel comfortable studying with Buddhist teachers. On the other hand, one must be honest about two points.

- A. The traditions within which MAPs developed all make quite well-defined (and occasionally opposing) philosophical claims.
- B. Application of mindfulness skills at an industrial strength level could change how one views things.

Some of the philosophical formulations that come out of contemplative experience sound similar to certain notions that come up in science. Many people assume that this points to an emerging confluence of science and spirituality but, at this point in human history, there is no compelling evidence for that. The parallels could easily be the result of coincidence, semantic ambiguity, projection, cherry picking of evidence, and so forth. Yet, having said that, I must admit that there is something intriguing in all of this. Consider for example the following.

SCIENCE	BUDDHISM
Something from nothing (virtual particles)	Emptiness is Form ( <i>shūnyatā</i> )
Particles can be waves (De Broglie)	Self and world can flow ( <i>anitya</i> )
Interconnectivity (quantum entanglement)	Interbeing (Huāyán and Tiāntái Schools in East Asian Buddhism)
Spontaneous emergence (far from equilibrium systems, entropy)	Spontaneous emergence (Conditioned co-arising— <i>pratīyasamutpāda</i> . <i>Utpāda</i> literally means to “fall up” into existence)
Uncertainty has its place (Heisenberg)	“Don’t know mind” has its place (some forms of Zen)
Natural world can be modeled in terms of mutually cancelling polarities (invertible elements in algebraic structures)	Consciousness can be described in terms of mutually cancelling polarities (some forms of Zen)

Perhaps in the future, humans will discover that the cold, impersonal processes described by science are more spiritual and nurturing than most materialists concede—and that mature spirituality needs to be more analytical and skeptical than most religionists allow. Only time will tell.

Was the Buddha himself a scientist?

How do you think of the Buddha?

- Prophet-like? A religious figure who revealed the true nature of all existence.
- Scientist-like? An extraordinary human being who made innovative and deep discoveries regarding the nature of human happiness.

The issues he dealt with could be described as spiritual but the approach he took was remarkably rigorous.

Thinking of the Buddha as a proto-scientist entails some interesting consequences.

- It's possible that some of his formulations were not quite correct.
- It's possible that there's more to the picture than he described.
- It's possible that his formulations can be built upon, extended, and improved.

At least some Buddhists feel comfortable with such notions. For example, the Dalai Lama of Tibet has publicly embraced them.

If the Buddha is a proto-scientist, then the first two bullet points above do not in the least diminish his dignity.

But how about point three? The notion that we can improve on the Buddha might at first seem quite arrogant, but people have been endeavoring to do just that for centuries. Indeed, much of Buddhist history is the record of such explorations.

In the centuries immediately after the Buddha's death, adepts systematized his ideas into the *Abhidhamma* (which literally means “improved dharma”). Somewhat later, the Mahayanists placed service to the world on equal footing with transcendental wisdom (thus balancing the Buddha's strong emphasis on personal liberation and withdrawal from society). Still later, numerous innovative focusing techniques were developed, many of which are utterly unlike those taught by the Buddha (but all of which can be analyzed in terms of concentration, clarity, and equanimity!).

- Kōan Practice (Zen)
- Merging with the natural world (Zen)
- Merging with an Archetype (Vajrayāna)
- Sexual Yoga (Vajrayāna)
- Noting (Mahasi)
- Body Scanning (U Ba Khin)

As diverse as these innovations may seem, from a certain perspective they are all essentially similar. By that I mean that they are all based on the same tool the Buddha himself used—introspection. In other words, they are all “first-person approaches.”

Our current research on mindfulness brings a completely new player to the table—the “third-person” methods of science.

If indeed the Buddha was a proto-scientist, then our current research can be thought of as the natural continuation of his work. So, is it reasonable to think of the Buddha as a proto-scientist? Below in outline form are the pros and cons as I see it.

Let's start with some ways in which the Buddha was scientist like.

- He used awareness extending tools:

THE SCIENTIST	THE BUDDHA
Build an external physical apparatus: microscope, telescope, oscilloscope, etc.	Systematically train your sensory skills: <b>Concentration Power</b> • Stable tuning capability <b>Clarity</b> • Resolution - Untangle sensory components • Sensitivity - Detect subtle signals <b>Equanimity</b> • (Relative) non-interference with the observed system
Use this to get a clearer picture of outer world	Use this to get a clearer picture of inner world

- He used the “divide and conquer” strategy:

THE SCIENTIST	THE BUDDHA
Analyze physical and mathematical structures into their basic parts (atoms, primes, degrees of freedom, etc.)	Analyze sensory experiences into their basic parts (5 aggregates, 4 foundations, 4 elements, etc.)
Goal: Understand how true and useful properties arise from interactions among those parts.	Goal: Understand how an illusory and painful property (Self as Thing) arises from interactions among those parts.

- He emphasized rates of change, detachment, and evidence:

THE SCIENTIST	THE BUDDHA
Rates of change are important: Differential equations, etc.	Rates of change are important: Impermanence
Equanimity: Humility before the facts	Equanimity: Acceptance of sensory experience
Epistemology: Knowledge comes from direct experience and logical inference; the role of authority is minimized	Epistemology: Knowledge comes from direct experience and logical inference; the role of authority is minimized

Now let's consider some ways in which he was not scientist like:

THE SCIENTIST	THE BUDDHA
Based on collaboration and dialogue	Not based on collaboration and dialogue
Based on “third-person” (i.e., public) evidence	Based on “first-person” (i.e., introspective) evidence
Makes clear distinction between vivid sensory experience and objective reality	Apparently assumed his vivid experiences of gods, powers, and multiple lives were objectively real
Assumes that science improves with time	Classic Indic civilization assumes that dharma (humanity’s spiritual understanding) deteriorates with time. It’s not clear whether the Buddha believed this or not.

***Interactions with Psychotherapy and Psychology*****Psychotherapy****Similarities**

The CCE paradigm gives us a convenient perspective from which to compare and contrast psychotherapy and mindfulness. When we do that, the first thing we are struck with is how many therapeutic techniques seem to involve some version of these elements.

**Concentration Power**

Clients may be encouraged to:

- Focus on the present moment.
- Anchor themselves by focusing on external sights or sounds. (Ironically, therapists call this strategy “distraction.” In fact it’s an exercise in concentration. In my Unified Mindfulness System this strategy is called “Focus Out.”)

**Clarity**

A client may be encouraged to:

- Get in touch with what they’re feeling right now.
- Find what’s behind x (Where x = a thought, feeling, behavior, etc.)
- Bring up suppressed material and examine it consciously.
- Notice when they’re projecting.

**Equanimity**

A client may be encouraged to:

- Be less self conflicted. (Recall equanimity was defined as training each sensory circuit not to interfere with itself.)
- Not hold on to the past.
- Not suppress what’s coming up in the present.
- Accept themselves.
- Be open to what they’re feeling.
- Not fixate.
- Intentionally expose themselves to a problematic stimulus until the reaction extinguishes.

So much for the client. How about the therapist?

A case could be made that therapeutic listening is a (transient) state of mindful awareness. When “on the job,” the therapist is highly focused on the client (concentration) carefully looking and listening, while attentive to their own feelings (clarity), and at the same time modeling a container for the client (equanimity). (Now, if therapists could only be that way all the time, with their family, colleagues, the general public...but we’ll get to that issue in a moment).

Historically, Freud described the required attentional state of a therapist as “evenly hovering awareness” (*gleichschwebende aufmerksamkeit*).

## Differences

Given all the above, can we say that therapy is a MAP? I would argue that it is not. Here’s why.

In the paradigm I’m advocating, the defining characteristic of a MAP is that it systematically and significantly elevates the practitioner’s base level of concentration, clarity, and equanimity. Therapy, in general, does not aim at that, either for the client or for the therapist.

Let’s see if we can make the contrasts specific and tangible. (But first, a word of caution. I am aware that the comparisons of therapy viz MAPs listed below are gross oversimplifications bordering on caricature. I seek to partially leaven that failing by frequently inserting the phrase “tends to.”)

### 1. Dosing

People committed to MAPs will often:

- devote 1/2 an hour to 1 hour daily for formal practice.
- attempt to practice on the fly throughout the day.
- do one or two week-long retreats per year. During the retreats, they practice all day in silence.

Moreover, they keep up this regimen for their whole life. This represents a dosing that is massively greater than what we would normally expect with therapy (but sometimes quality can trump quantity! See 4 and 6 below).

### 2. Deconstruction

Many mindfulness techniques are deconstructive—capable of taking a sensory challenge and literally “knowing it to death.” By that I mean experiencing it so fully that it dissolves into a shower of effervescent emptiness and henceforth is never able to reconstellate.

Therapy normally does not aim at consistently delivering those types of experiences; “Mindfulness Classic” does.

### 3. Temporal scale

Therapy tends to be concerned with the large-scale inappropriate holding—specific things that happened in early life or a few years ago, or months or weeks ago, that the client is still holding on to when there's no need to do so.

Mindfulness addresses generic micro-holding at a second-by-second temporal scale.

#### 4. Types of issues

Therapy tends to aim at insights into individual personal issues. MAPs tend to aim for insight into universal transpersonal principles.

#### 5. Approach to the unconscious

For Freud, the unconscious was the storehouse of our unresolved poison and pain—a dark cellar full of spiders and vermin. For Jung, it was the realm of archetypes, empowerment, and intuition. Interesting, both views coexist within traditional Buddhism. The more Freudian view of the unconscious is called the *ālayavijñāna* (store house consciousness). The more Jungian view is called the *sambhogakāya*, realm of “reward bodies”, i.e., archetypes.

Both mindfulness and therapy work with the unconscious but they tend to do so quite differently. The mindfulness approach could be characterized as “trickle down.”

In the trickle down paradigm, clarity and equanimity are poured on surface sensory events. They then seep down into the unconscious, giving it what it needs to untie its own knots. This affects large areas of the subconscious and occurs below the threshold of awareness. It manifests in daily life as an increase in general happiness and as spontaneous positive changes in behavior. (See Section III on penetration.)

By way of contrast, therapy has tended to use a dredge-up paradigm. Repressed material is located and brought to the surface where it can be observed and released.

In contrast to trickle-down case, dredged-up material tends to be specific and biographic.

#### 6. Specialization

Therapy developed as part of medicine. It has clear ways to diagnose and treat specific mental problems. MAPs are more general in nature.

#### 7. The Human Element

Therapy tends to be a human-to-human endeavor. MAPs, even when done in a group setting, are more a solo journey.

#### The case for collaboration

So far, it might sound like I've portrayed therapy as the weak little brother of mindfulness—but I don't believe that at all. In the collaborative paradigm, therapy brings a lot to the table.

To collaborate means to work together. Because of their contrasting emphases, MAPs and therapy are ideally suited to reinforce each other.

The interplay of psychotherapy and MAPs holds enormous potential. Therapists can now outsource the acquisition of generic attentional skills by prescribing mindfulness training for their clients. Elevating the client's base level of concentration, clarity, and equanimity skills potentiates the therapeutic process, making it easier, deeper, and faster. Everyone benefits: the client, the therapist, and—yes—whoever has to pay the bill.

But collaboration is a two-way process. Mindfulness is not a panacea. A person may have deep-seated psychological issues that decades of MAPs fail to touch. However, working with those types of issues is precisely the forte of the therapist! Each field provides what the other needs.

## Psychology

Now let's briefly look at how mindfulness relates to certain specific movements within psychology.

### **Positive Psychology**

Both positive psychology and mindfulness aim at human happiness. How do they relate? Two things come to mind:

- Mindfulness skills are key to successfully implementing the strategies suggested by positive psychology advocates.
- A CSOM (Comprehensive System of Mindfulness) provides a paradigm for happiness that is broader than those usually associated with positive psychology. A CSOM provides a systematic strategy for experiencing negative states in a way such that they are simultaneously more poignant but less problematic. More poignant means that those states continue to motivate and direct; less problematic means that they no longer drive and distort. Positive psychology has sometimes been criticized for failing to address the issue of negative experiences.

### **Transpersonal Psychology**

"Mindfulness Classic" is specifically designed to bring people to transpersonal experience.

### **Cognitive Behavioral Therapy**

Mindfulness and cognitive behavioral therapy (CBT) are similar in that they both equip people with focus techniques and attentional strategies which can be applied to challenges during daily life. This contrasts with traditional therapies which emphasize talking and personal interaction during a therapy session.

### **Introspection (Wundt) and Structuralism (Titchener)**

Every standard history of psychology treats these approaches as dead ends. But I believe the underlying idea was quite sound. Both Wundt and Titchener felt that if psychology is to be truly a science it should be based on the tried and true principle of "divide and conquer"—figure out what the basic atoms of

experience are, then you can explain how they interact to create complete phenomena such as thought, emotions, will, virtue, and such. But this is precisely what the Buddha advocated! Indeed, Titchener's taxonomy of sensory experience is in some way remarkably similar to the one I hit upon in developing the Unified Mindfulness System.

The problem was not in their basic assumptions. The problem was that they lacked a systematic method to go about the endeavor and they had no objective (i.e., physical way) to prove their claims. The advent of mindfulness practice in the West gives us a systematic way to go about "introspection". Our ever-improving neuroimaging technology gives us the ability to link introspective reports with physiological events.

The fact that so many young neuroscientists are learning MAPs may well result in a revision of history: Introspection and Structuralism were actually on the right track but the limitations of their culture and technology prevented them from successfully pursuing the agenda.

### **Behaviorism**

The most vociferous critics of Introspection and Structuralism were the early Behaviorists—Skinner, Watson, and such. Ironically, Skinnerian conditioning may turn out to be a good explanatory mechanism for how mindfulness trains the "animal level" of the brain. (See Section III regarding penetration.)

## V. HOW MINDFULNESS REDUCES SUFFERING

As I mentioned in Section I, I like to think of Mindfulness – The Path as having a theoretical side and a practical side. The practical side involves instruction for applying mindful awareness towards specific goals. The theoretical side involves creating an explanatory model for how those goals are achieved. How do three attentional skills foster five broad effects: reduction of suffering, elevation of fulfillment, deep self knowledge, positive behavior change, and a spirit of love and service. In this section, I provide a detailed paradigm for how mindful awareness fosters the first of those effects, reduction of suffering. This is the model used within the Unified Mindfulness System (formerly Basic Mindfulness System). Unified Mindfulness provides analogous models for the other four effects.

So how do concentration, sensory clarity, and equanimity work together to reduce suffering?

Any experience of discomfort, whether mild or intense, will involve one or a combination of four sensory elements:

- Uncomfortable physical sensations in your body.
- Uncomfortable emotional sensations in your body.
- Negative talk in your mind.
- Negative images in your mind.

For simplicity, let's say that the maximum intensity of any of these elements is level 10. Now, let's assume the worst case scenario: all four elements are at level 10, the maximum body-mind distress that the human nervous system is capable of generating. How much suffering will this cause? The rather surprising answer is—it depends.

What usually happens is that the physical body sensations, emotional body sensations, mental images and mental talk get tangled and therefore mutually reinforce each other. In other words, they *multiply* together, giving you the *impression* that you are suffering at level  $10 \times 10 \times 10 \times 10$ . That equals 10,000...and suffering at that level is utterly unbearable. People will do *anything* to escape from that level of body-mind distress. If distress at that level without escape continues, their thoughts may move toward suicide.

The first step in getting out of this hell involves sensory clarity. You learn to untangle the elements. First, separate the body part from the mind part. Then in the body, separate the physical from the emotional. And in the mind, separate the visual from the auditory.

If your sensory clarity skills are really good, this will dramatically reduce your suffering because the elements are no longer multiplying with each other. You're experiencing only what *is* going on, not what *seems* to be going on. So the elements just add together:  $10 + 10 + 10 + 10$  equals 40. What a difference between having to carry 10,000 pounds versus only having to carry 40 pounds. The relief is dramatic. But we can do even better.

Concentration Power is defined as the ability to focus on what you want, when you want, for as long as you want. If you have really good concentration power, you can focus on just your emotional body sensations, or just your mental talk, or just your mental images, or just the physical sensations of the pain. That way, at any given instant, you would only have to experience a single "10." So you can go from a 10,000 to a 10 by

Concentration Power and Sensory Clarity alone. This represents a 1,000-fold reduction in distress. The body-mind events have not changed at all. What has changed is your relationship to those sensory events. You've gone from a tangled, scattered experience of the sensory challenge to a clear and concentrated experience of it.

A 1,000-fold reduction in suffering without any actual change in the content of experience is pretty miraculous, but we can do even better!

Let's say that you're focusing on just the physical discomfort and your concentration is so great that your mind and emotions have faded into the background for awhile, and there's just the physical sensation of the pain itself. But it's still at level 10, which represents the maximum, so that's still significant suffering.

Now you bring equanimity to that physical discomfort sensation. That means you ask your body to open to its own creations, to stop fighting with the physical discomfort it's producing. You try to greet each wave of body sensation with a gentle matter-of-factness. At some point you fall into a deep altered state where your body stops fighting with itself, time slows down and everything gets very still. It then becomes evident that the "10" itself is made up of  $2 \times 5$ : 2 units of actual physical discomfort multiplied by 5 units of resistance to that physical discomfort. As the equanimity goes up, the resistance goes down until you are left with nothing but level 2 sensation, which is all that was ever actually there!

And because there's no resistance, that level 2 sensation flows as a kind of wavy energy and no longer causes any real suffering at all.

That's how a "Turn Toward It" strategy works to bring relief from suffering. If your level of concentration power, sensory clarity, and equanimity has been permanently elevated through practice, then the associated relief is also permanent. When treatment or medications can't eliminate the pain, there's still something you can do—develop sensory clarity to separate the elements, develop concentration power to focus on just one element at a time, and develop enough equanimity to melt the internal resistance. At that point, what's left of the sensory challenge will flow like a river.

In the rigorous language of logic, what we've just described could be summarized as follows.

ASSUMPTION I: A person's experience of self can be analyzed into two fundamental dimensions:

- Their direct *sensory experience* of body and mind.
- Their *attentional relationship* to that sensory experience.

ASSUMPTION II: A person's direct sensory experience of body and mind can be parsed into four components:

- Physical-type body sensations
- Emotional-type body sensations
- Visual thought (Usually centered in front of/behind the eyes.)
- Auditory thought (Usually centered in the head/at the ears.)

Notice that these categories are both qualitatively tangible and spatially localizable. Most specifically, notice that in this paradigm, "*thought*" is not an abstraction; it is an observable pattern of sensory activation.

These sensory categories may be grouped in one of two natural ways:

- Grouping I – Body and Mind

- A. Somatic experience
  - 1. Physical Body Sensation
  - 2. Emotional Body Sensation
- B. Mental experience
  - 1. Mental Image
  - 2. Mental Talk
- Grouping II – Physical Body and Inner Life
  - A. An *objective* sensory impact
    - 1. Physical Body Sensation
  - B. A *subjective* system consisting of three mutually interactive components
    - 1. Mental Image
    - 2. Mental Talk
    - 3. Emotional Body Sensation

This subjective system is one's inner life of thoughts and emotions. It can function in one of three modes.

1. *Reactive Mode* - A person's moment-by-moment mental and emotional reactions to external sights, external sounds and physical body sensations.
2. *Proactive Mode* - The system generates memory, planning, fantasizing, rumination, problem solving, and so forth.
3. *Inactive Mode* - Short moments during which inner activity spontaneously ceases,

The reactive mode is related to the sense of perceiving self...the "I" that perceives sights, sounds and physical impacts on the body.

The proactive mode is related to what neuroscientists call the "default mode network."

The inactive mode is related to the experiences of "no self."

ASSUMPTION III: A person's attentional relationship to their sensory experience can be captured in three dimensions:

- *Concentration power*: The ability to attend to what is deemed relevant at a given time.
- *Sensory clarity*: The ability to keep the components of sensory experience distinct in awareness and the ability to detect subtle sensory events.
- *Equanimity*: The ability to allow sensory events to arise without suppression and pass without holding.

We can now further define:

*Mindful Awareness*: Concentration power, sensory clarity, and equanimity working together.

*Base Level of Mindful Awareness*: How mindful a person is on average.

*Sensory Challenges*: The total constellation of uncomfortable physical sensations and uncomfortable emotional sensations in the body, combined with the negative ideation, mental confusion and/or irrationality in the mind, at a given moment.

Concentration power allows a person to:

1. Selectively focus away from the sensory challenge and onto things like relaxation, positive or rational cognitions, external sounds, etc.

OR

2. Selectively focus on a small manageable piece of the sensory challenge itself.

Either of these selective focus skills can be used to reduce suffering.

Sensory clarity measures (*inter alia*) the degree to which a person can untangle a sensory challenge into its basic components.

Equanimity measures the degree to which a person can allow sensory experience, even uncomfortable sensory experience, to flow in a natural way.

Each of the three dimensions of Mindfulness reduces suffering in its own way.

Concentration power allows a person (a) to ignore the sensory challenge or (b) to break it up into manageable pieces.

Sensory clarity reduces a person's perception of overwhelm by reducing "flooding." It allows a person to experience exactly what is *happening* rather than what *seems to be happening*. When physical body sensations, emotional body sensations, mental image, and mental talk get tangled they tend to cross multiply, creating an illusory emergent phenomena: self is a thing. Sensory clarity takes a person from exponential overwhelm to linear manageability, i.e., from the perception of physical body sensations x emotional body sensations x mental image x mental talk to the perception of physical body sensations + emotional body sensations + mental image + mental talk.

The effect of equanimity is most easily understood by considering its opposite, "resistance," i.e., resistance to the flow of experience. Resistance is analogous to friction in a mechanical system—one part of the system is fighting against another, wasting energy and producing heat. Increasing equanimity is analogous to lubricating ones sensory machinery.

**ASSUMPTION IV:** For a given type and level of sensory challenge, a person's perceived suffering will, in general, be inversely correlated with their level of mindful awareness, i.e., suffering goes down as mindfulness goes up. (Unfortunately, the converse is also true!)

Thus, to a quasi-linear first approximation over a perhaps limited domain of definition:

$$\text{Perceived Suffering} = \frac{\text{Level of Sensory Challenge}}{\text{Level of Mindful Awareness}}$$

**ASSUMPTION V:** A person's base level mindful awareness can be dramatically increased through systematic training.

**CONCLUSION:** Perceived suffering can be permanently and dramatically reduced through systematic attentional training.

## **VI. SOME UNWARRANTED ASSUMPTIONS**

Here's a list of commonly encountered assumptions that I believe are unwarranted. I place them here for convenient perusal. Some are found among the lay public. Some occur within the mindfulness community. Many are a consequence of ascribing simple answers to complex issues.

### **1. Mindfulness implies an unrestricted focus range**

Many forms of meditation require a narrow focus range. One concentrates on the breath, or a mantra, or a visualization, and so forth. A convenient (and perhaps unique) feature of mindfulness is that one can be mindful of "whatever comes up" i.e., it's not necessary to partition sensory experience into focus objects on one hand and distractions on the other.

However it's misleading to think that an unrestricted focus range is the defining characteristic of mindfulness.

One can be mindful of:

- Just one experience (say, the breath, or mental talk).
- One class of experiences (say, any and all body sensations).
- A complex system (say, one's inner life, i.e., mental images, mental talk, and emotional-type body sensations).
- All experience (i.e., "open presence" or "choiceless awareness").

This flexibility in focus range can be very helpful for systematically exploring one's experience. One can drill down (work with individual sensory elements) then back up (integrate larger sensory systems) then drill down again...until all scales of experience have been clarified and unblocked.

### **2. Mindfulness = Just Being Aware**

Relative to many other practices, mindfulness emphasizes clear awareness of present experience. It is therefore tempting to simplistically equate being more mindful with being more aware in a general sort of way.

There are three reasons why this is misleading.

First, mindful awareness is fine-grained and systematic. Second, equanimity (or something similar such as "detachment" or "non-grasping") has been an explicit part of every historical mindfulness system. Third, concentration is an integral feature in both major forms of Southeast Asian mindfulness. Momentary high concentration is emphasized in Noting and systematically focusing on specific body regions is the defining feature of Body Scanning.

Of course, we can and should design experiments that isolate the effects of the clear awareness component of mindful awareness. But I think we should avoid the temptation to equate the overall endeavor of mindfulness with just one of its basic components.

### **3. Mindfulness = MBSR**

Jon Kabat-Zinn's MBSR is of historic significance because it was the first attempt to extract mindfulness from the specific customs and worldview of its culture of origin. In order to establish mindfulness as an evidence-based process, Kabat-Zinn and others had to publish credible research in standard scientific journals.

A general principle in science is that new research should be based on previous research, but scientists are not, by training, knowledgeable regarding the broad tradition from which MBSR was culled. They may not realize that MBSR contains elements (such as yoga) which are certainly beneficial but not historically part of mindfulness *per se*.

There is still a strong trend in the scientific community to restrict the funding of research on mindfulness to studies of MBSR. This is roughly equivalent to saying that biology shall be defined as the study of tetrapods.

### **4. You can guide others in a mindful awareness practice without doing that practice yourself on a regular basis.**

Unless you master and apply the technique yourself, you won't be able to understand its subtleties and you won't be able to project deep confidence in its efficacy.

### **5. "Mindfulness" = Mindfulness**

"Mindfulness" is currently a sizzling hot buzz word. This makes it tempting to attach the name mindfulness to any process that is in some (perhaps tenuous) way involves being "aware".

There are many valid systems of mindfulness. So, to put things rather bluntly, how can we distinguish a valid system of mindfulness from a cheap look-a-like? Here's my attempt at addressing this issue.

Any system of mindfulness should contain a definition of mindful awareness.

A mindfulness offering is a valid system of mindfulness if:

- its definition of mindful awareness roughly lines up with other major systems of mindfulness.
- its *explicit* goal is to elevate the user's *base level* of mindful awareness as defined within the system, i.e., it explicitly aims at training traits not just inducing states.

### **6. Noting is just noticing (see Section II)**

### **7. Noting and mental labeling are the same thing (see Section II)**

### **8. A comprehensive system of mindfulness is / is not sufficient to address all your issues.**

Neither statement is universally true. Even a CSOM may not be sufficient for a given person. They may also need therapy, a 12-Step Program, a religious belief, counseling, and even perhaps psychotropic medications.

On the other hand, no doubt there are some people for whom a certain CSOM sufficiently addresses everything that needs to be addressed.

What's good for the goose is good for the gander. Having ranted over some common assumptions, let me close by pointing out two assumptions that I've been making all along in this article. Those assumptions have served to simplify the paradigm I wish to propose. However, a more fine-grained treatment of the subject reveals that these assumptions are in fact somewhat misleading and a more nuanced description is required.

In what follows, x, y, and z stand for arbitrary sensory phenomena.

**My First Assumption:** Each of the CCE skills is a unitary entity, that is to say, concentration is a single skill, likewise for clarity and equanimity.

The implication here is that if you learn to maintain focus on x (say, your breath), then that skill will immediately carryover to an ability to maintain focus on y (say, external sound) or z (say, mental images). There's no doubt some carry over but there may also be some learning that is specific to each class of sensory experience. Similar considerations hold for the clarity skill and the equanimity skill.

**My Second Assumption:** The three core skills are completely independent entities.

The three core skills I have portrayed are something like a minimal set of spanning vectors i.e., a set of basic elements into which mindful awareness can be canonically decomposed (metaphorically if not actually mathematically).

I do not doubt that they are collectively sufficient for that job (they span the space).

I do not doubt that each is needed for that job (they are the minimal factors you need).

However, in this article, I have treated them as if they were completely independent, i.e., without any mutual overlap. But actually, there is some overlap. For example, part of learning how to concentrate on Object X involves learning how to have equanimity with Distractions Y & Z as they arise in the background. Also the more clear you are about the sensory components of X, the easier it is to concentrate on it.

## **VII. WHERE DO WE GO FROM HERE?**

In his 1920 classic Outline of History, the British writer and historian H.G. Wells had this to say about the Buddha:

...it is quite possible that in contact with western science, and inspired by the spirit of history, the original teaching of Gautama, revived and purified, may yet play a large part in the direction of human destiny.

Almost a century later, in addressing the first International Conference of Buddhist Geeks, I found myself paraphrasing Wells thus:

...it is reasonable that in contact with modern science, and inspired by the spirit of history, the original discoveries of Gautama, rigorized and extended, may yet play a large part in the direction of human destiny.

It is my hope that this article may in some way contribute to that rigorized and extended framework.