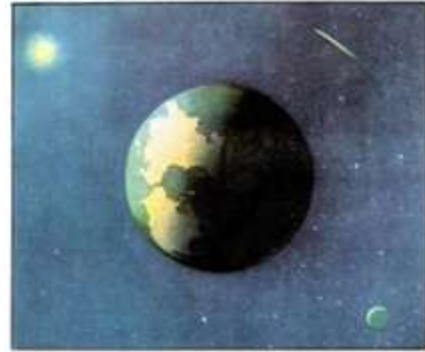


# MIND

'makes the world go round'

Tom Ransom 2016



It wasn't that the feature presentation was disappointing, not at all. In fact, as he looked around the movie theater, no one else even seemed to notice. But what a curious thing that luminescent light beam was, roiling the dust in the emptiness above...



For here was a transparent conveyance, seemingly vacant from every angle save one: that of its terminal world encounter. And only then, at that instant—upon *reflection*, were its contents revealed!



He turned and followed the flickering beam all the way back to its radiant source to ponder the projection machinery within. And then, in the time it took for his return to the movie—he was *gone*. His attention had bounded past the screen, through the walls, to the sounds and sights of the world outside, and beyond... why, in his *mind* he could go virtually anywhere! In the cognitive awareness of his 'mind's eye' was visible an expanding horizon extending as far as one could fathom. This was the *cerebral* multiplex where the convergence of knowledge and imagination enables us to explore the omni-context of our Being. He was just thirteen at the time; tuned into the Big picture from that moment on.

"The more we know the more mysterious it becomes that we can and do know." Buckminster Fuller



Mind *is* the mother of all mysteries. Can we agree? For truly, before all else, what does it even mean to be "conscious", this waking realization whereupon the entire world appears right before our very eyes? Or so it seems. And what about this curious "intelligence" whereby we would even *think* to ask such a question? As far as we know, in our heads, here on Earth, is the only place where that's happening. And while we're at it, *who's* doing the asking? What is this intimate sense of a reflective "self" that not only preoccupies our every waking moment, but over a lifetime, and at last, was the only continuous thing we ever knew?

All, mysteries indeed, even more so because it seems likely they will remain so, forever sealed in a 'fish in the sea paradigm'. For how would one ever visualize the *global* Big picture while entirely immersed in it? It seems that in order to grasp the whole of mind one would first have to let it go! Impossible, of course.

Or is it? Now granted, if literally "loosing your mind" were truly a prerequisite to its comprehension, few would proceed; and indeed, more than a curious few have gone 'over the edge' in focused pursuit. But what if a sound alternative was presented, that is, a way to safely go out of your mind such that subsequently, and therefore, you could see it for the first time. Would you be interested? What if it were possible to consciously identify with what mind *isn't*, such that the whole of what mind *is*, would become readily apparent. Would you proceed? Well, if so, then let's give it a go, but first—one last proviso:

"The mind stretched to a new idea never goes back to its original dimension." Oliver Wendell Holmes Sr.



Ready? Begin by taking a deep breath, and slowly exhale. And another, slowly inhale, and exhale. *Center* only on your breathing, in and out. Should your attention wander, as it surely will, just recenter and begin again; the more you practice the more *synchronous* you'll become. That's because to attentively breathe in this manner is to identify with what is most essential to our being. Don't believe it? Next time you exhale, suppress the impulse to inhale for a moment, and be reminded of what begins to happen. That urgency that finally overwhelms your conscious intent is direct evidence that breathing is *other* than mind. In mere moments without oxygenated air our vital organs would begin to fail for lack of fuel. That's why our respiratory function is a primal *unconscious* reflex, something prior to mind. In fact, from its burning initiation at birth, to that exhaustive final exhalation, breathing requires "no-mind" at all.<sup>(1)</sup> Which means:

Everything that follows is Mind!

Now think about that for a moment: it states that *everything* beyond our unconscious "brainstem" functions must *therefore* be a matter of mind. That would include the entire experiential world of our senses, which is, after all, the post production product of our conscious 'upper' brain. The "cerebral cortex", where coherent sense is made of what our senses are sending, creates a world-*in*-mind so fully integrated that these two are indistinguishably *one and the same*.

While some may view this proposal as an inevitable retreat into solipsism<sup>(2)</sup>, on the contrary, it correctly recognizes that mind is the means and the medium by which virtually everything *else* becomes ours to explore. With our intellect we've expanded our perceptual awareness some forty orders of magnitude, from the innermost atomic to the most distant galactic realms.<sup>(3)</sup> From flint knapping, tending fires, and cave paintings dancing, to astronauts dancing on the Moon, the Hubble space telescope, and the Large Hadron Collider, knowledge based tools and technologies have enabled us to not only survive and thrive, but effectively extend our conscious awareness into every conceivable realm. By revisiting the past and imagining the future mind also enables us to seemingly transverse the

continuum of time. It's a *global* configuration space where our "percepts" form the cognitive topography of the world in which we live; a 'meta'-physical mind-scape of comprehension with a virtually unlimited potential for expansion.

"There is no aspect of reality beyond the reach of the human mind". Stephen Hawking



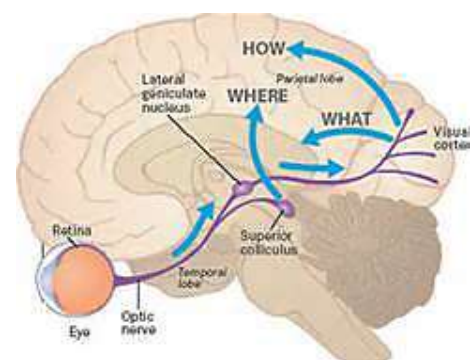
Perhaps the considerable notion that the world is all in mind just seems too far-fetched to fathom, so let's bring it closer to home. Let's return to the analogy of the light beam in the movie theater and ponder the projection machinery. Here on Earth each of us awakens every day to the feature presentation of our native star—the Sun. At the source of this solar projector is a 14 million degree thermonuclear implosion that's been discharging radiation for some 4.6 billion years with billions more years to go.



Spherically expanding at the speed of light, this solar radiation, in the form of oscillating electromagnetic waves, propagates through space forever—unrealized, unless and until it encounters something of substance, whereupon its contents are revealed. In the case of our planet, sunlight first encounters a magnetic field, then an atmosphere, before finally terminating at the Earth's surface. But as with the movie theater screen, this isn't their end—this is where everything *begins*.

When waves of sunlight terminate they are variously reflected, refracted, and absorbed, but most importantly, along the way, they *animate* everything in their path of dispersion. Light is where all the action is. It sends molecules into motion and instigates electrons to engage in chemical synthesis. The effective solar bandwidth, perhaps infinite, is surely greater than we know. What we do know is that without the likes of starlight there'd be no warmth, nothing to see, and no conscious observers like ourselves. Without radiant energy the universe would be no more than a cold, dark scatter, of tightly bound "baryonic" matter.

Now when sunlight strikes the surface of the Earth and rebounds, that which enters our pupils is focused onto a retinal array of photoreceptors, and then relayed to the brain for processing. Though direct sunlight is a megawatt conveyance of every possible wavelength, refreshing *trillions* of times a second, that which our brain finally receives has been reduced to a sparse flicker of occluded snapshots. That's because our visual processing system is a biological bundle of electro-chemical constraints. The retinal array, for example, is comparatively small, narrowly selective, and slow, only capable of uploading several times a second.<sup>(4)</sup> The neurotransmitter relays within the brain are then each limited by their own characteristic refresh rates, resulting in a total "refractory lag" of nearly half a second from the time light enters our eyes until we consciously make sense of it.



What all this means is that the experiential world of our perceptions is the derivative of an acutely limited, intermittent, highly processed sampling of what's really 'out there', and evermore less than what exists just beyond our immediate senses. The miracle of mind is that somehow, from these mere snapshots of external stimulus, our brain is able to produce this seemingly continuous experience of a world at large. The reality of what *actually* exists however—objective reality prior to our subjective perception of it, is something else altogether: It's entirely electromagnetic! The brain is Evolution's electromagnetic interpreter, a biological sense organ performing like an electronic transducer, turning the oscillations of the Sun's EM field into what we perceive is the world of *mind*, a dynamic display that's been fine tuned for millions of years, every year becoming evermore conscious, all in the service of the continued survival of our species.<sup>(5)</sup>

"The stuff of the world is mind stuff." Arthur Eddington



Still don't believe that the world you inhabit is entirely a creation of mind? After all, reasoned conjecture can only take one so far. In order to properly proceed requires an experiment be performed to verify that this proposal corresponds to 'real-world' observations. And luckily, we don't have to wait to put our hypothesis to the test, as the requisite experiment has already been performed. It's one of the defining experiments of "quantum mechanics" which is the scientific explanation of how and why energy and matter behave as they do.

In what's called the "double-slit" experiment a photon emitter is placed on a laboratory platform before a barrier with two fine slits in it. Those unfamiliar with this demonstration may choose to take a few moments to go to the link below.<sup>(6)</sup> For those familiar, what the experiment clearly demonstrates is that observed results actually *differ* from the *same* results unobserved. That is, the perceptual process itself is shown to enigmatically determine whether *what* we observe is of a "wavelinear" or a "particulate" nature.

What these seemingly confounding results *are* definitively demonstrating, however, is that prior to realization the phenomenology of the moment actually *is* of an entirely wavelinear electromagnetic field. From what we know of the nature of light it's a synchronous *global* phenomenon, simultaneous and universal. As shown, only upon reflection—during a refractory interval, does the projected "wavefunction collapse" to reveal the differentiated world of a local here and now.<sup>(7)</sup> The experiment thus confirms our hypothesis: prior to processing, *reality* is entirely electromagnetic, and therefore, everything else must be mind!

"I prefer to think that the moon is really there even if I'm not looking at it." Albert Einstein



We began our pursuit of mind by identifying what it wasn't, in order to comprehend the whole of what it is, and yet, in trying to envision the whole of it, we appear to have overlooked perhaps the central mystery of it all—*ourse/ves*. For what does it really mean to be "self-conscious", this purely subjective sense of a reflective observer within? Though seemingly self-evident, many in the cognitive science community are convinced that it doesn't really exist at all!<sup>(8)</sup>

So, to finish this brief endeavor let's lastly consider the "self", and whether its apparent presence might be of mind, other than, or not at all. And to do so let's return momentarily to the subject of centered breathing. While this practice in itself couldn't be simpler—recenter whenever attention wanders, something profound is curiously implicate in the process. For the conscious act of recentering implies that a 'wandering mind' returns to some *synchronous* state. But this is possible only if such a state of unity, in some sense, was *other* than mind.

For those who would dismiss this insight as merely a rhetorical contrivance, know that the profundity of this *experience* has been formally recognized for millennia, remains revered by many, can be refined with practice, and is readily accessible to everyone. What we find in the seeming *absence* of mind is the omnipresent synchrony<sup>(9)</sup> of everything under the Sun! And as to the central mystery of this reflective self within? Consider for a moment it's the same *one* in all of us.

"For how would actual unity or entity have any existence, and how would scientific knowledge be in existence, unless there was a certain one in all things." Aristotle



"The acceptance of a really existing material world, we all find in the end, is mystical and metaphysical."  
Erwin Schrodinger

Two monks were arguing about a flag.  
"The flag is moving" said the one.  
"The wind is moving" said the other.  
"Not the wind, not the flag" said a third,  
"Mind is moving." Zen Flesh–Zen Bones



- 1) Babies born without a brain can still have fully functional respiratory systems.
- 2) Solipsism: one's own mind is the *only* thing that can be known.
- 3) Curiously, human beings are poised *midway* between the physical magnitude extremes.
- 4) The eyes reset every ~200 ms. during reflexive eyeball movements called "saccades". We visually perceive less than .005% of the electromagnetic frequency spectrum.
- 5) Mind is an inevitable evolutionary adaptation because comprehension enhances survival. The intellect, in seeking the most coherent path forward, progresses naturally toward knowledgeable truth. After all, in the end, really—what else *is* there! Mind becomes evermore conscious over time because the intellect naturally selects its way there.  
"Nothing is so beautiful to the eye as truth is to the mind". Aristotle
- 6) <https://www.youtube.com/watch?v=A9tKncAdIHQ>
- 7) It's only during the refractory interval of perception that *duration* is introduced—events unfolding in time, and meaningful patterns emerge revealing the contents of the universe. Were it not for the process of perception how then would the universe be realized?
- 8) Dennett, Blackmore, and Harris (see below).
- 9) The subjective ringing commonly associated with "tinnitus" might otherwise be the 'white-noise' of our cerebral neural network, in resonant synchrony with the electromagnetic field, about which, undoubtedly, we have much more to learn. Consider that in just a couple hundred years we've gone from its virtual discovery, to where now, via our electronic devices, the EM field has captivated the better half of our attention.

## Bibliography

- Aristotle [J.McMahon] *The Metaphysics* (Prometheus Books: 1991)
- Descartes, Rene *Meditations on First Philosophy* (Pacific Publishing Studios: 2010)
- Locke, John *An Essay Concerning Human Understanding* (Prometheus Books: 1995)
- Schrodinger, Erwin [C.Hastings] *My View of the World* (Ox Bow Press: 1964)
- de Chardin, Pierre Teilhard *The Phenomenon of Man* (HarperCollins Books: 1959)
- Wilson, E.O. *The Meaning of Human Existence* (LiveRight Publishing: 2014)
- Crick, Francis *The Astonishing Hypothesis* (Macmillian Publishing: 1994)
- Hofstadter, Douglas R. *Godel, Escher, Bach* (Basic Books: 1979)
- Dennett, Daniel C. *Consciousness Explained* (Back Bay Books: 1991)  
*Kinds of Minds* (Basic Books: 1996)
- Blackmore, Susan *Consciousness – Short Introduction* (Oxford U. Press: 2005)
- Ferris, Timothy *The Mind's Sky* (Bantum Books: 1992)
- Edelman, Gerald M.; Tononi, Giulio *A universe of Consciousness* (Basic Books: 2000)
- Calvin, William H. *A Brief History of Mind* (Oxford U. Press: 2004)
- Horgan, John *The Undiscovered Mind* (Touchstone: 1999)
- Cairns-Smith, A.G. *Evolving the Mind* (Cambridge U. Press: 1996)
- Scott, Alwyn *Stairway to the Mind* (Copernicus: 1995)
- Kurzweil, Ray *How to Create a Mind* (Penguin: 2012)
- McCrone, John *Going Inside* (Fromm International: 2001)
- Rosenblum, Bruce; Kuttner, Fred *Quantum Enigma* (Oxford U. Press: 2006)
- Austin, James H. *Zen and the Brain* (MIT Press: 1999)
- Robinson, Marilynne *Absence of Mind* (Yale U. Press: 2010)
- Johnson, George *Fire in the Mind* (Vintage Books: 1996)
- Carroll, Sean *The Big Picture* (Dutton: 2016)
- Harris, Sam *Waking Up* (Simon & Schuster: 2014)
- McGinn, Colin *The Mysterious Flame* (Basic Books: 1999)
- Goswami, Amit *The Self-Aware Universe* (Tarcher/Penguin: 1993)
- Crawford, Tom *The Conscious Universe* (AuthorHouse: 2007)
- Pockett, Susan *The Nature of Consciousness: A Hypothesis* (Writers Club Press: 2000)



## ADDENDUM

### An afterword concerning Cannabis

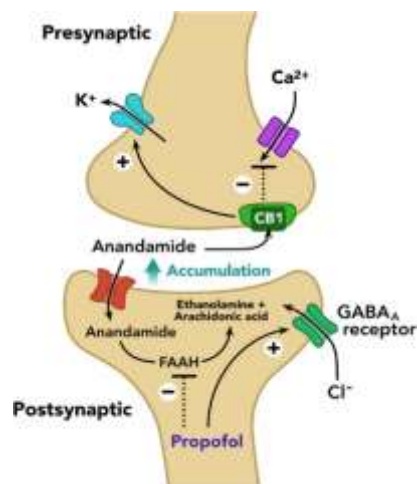
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Well, if you've happened this far we're not quite finished. There's an additional mind pursuit we haven't explored—the experience of getting "high". Seriously, if you haven't consumed cannabis then you're missing a golden opportunity to enhance your conscious awareness. And now that this medicinal mind-herb is finally emerging from the dark ages of a most unfortunate misunderstanding, there's no better time. Interested? Well, if so then let's give it a go, but first, again—one last proviso:

'The mind stretched anew  
never returns to its original dimension.'



Ready? Begin by inhaling deeply, and hold... now exhale. Do it again; and again. While you may not experience much at first, over time a subjective sense of "turning on" will appreciate. Here's why: When cannabis is consumed its resinous cannabinoids enter your bloodstream and proceed to the brain. While most chemical compounds are then bypassed along the 'blood-brain barrier', the cannabinoid family enters because it closely resembles an endogenous neurotransmitter called anandamide, notably implicated in many aspects of consciousness, including appetite, arousal, memory, and the imagination. Biologically, these molecules are "retrograde" transmitters because they migrate from vesicles in the post-synaptic axonal cleft to expectant "CB1" receptors on the pre-synaptic side. What this amounts to is a *synchronous potentiation* of the brain's pre-synaptic network which further conditions these receptors.



Whereas most all cerebral stimuli are introduced via the soma and sensate nerve channels, and then processed selectively in the brain's various dedicated lobes, cannabinoids enter by way of the bloodstream and thus have a *global* psychoactive effect. And because they alter mind, *everything* changes. Beyond being generally pleasurable, synchronous axonal potentiation provides an enhanced "cognitive parallax" to one's normal perceptual awareness. That cannabis, a garden-variety herb, can serendipitously alter the refractory attributes of the brain and thus shift our perceptions, such that for a time the world can be consciously reflected in an *other* mind—in an enhanced synchronous state, is truly a most fortuitous finding. For me it was a *gateway* drug, but you won't know what this means for you until you see for yourself, after all...

No two eyes see the world through the same mind!