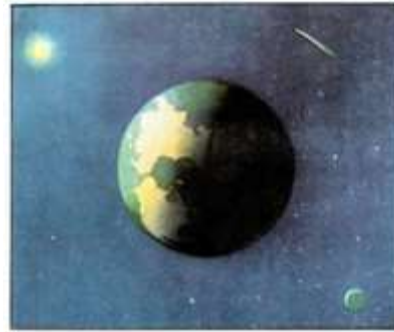


MIND

'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 curiosity that luminous light beam was, roiling the dust in the emptiness above.



For here was a transparent conveyance, seemingly vacant until its *terminal* world encounter, and only then, at that instant, upon *reflection*, was its contents revealed!



He turned and followed the flickering beam back to its radiant source to ponder the projection machinery. And then, just as his thoughts were returning to the movie, they bounded past the screen, through the theater walls, to the sounds of the world outside, and sights beyond... why, in his *mind* he could go virtually anywhere! In the cognitive awareness of his 'mind's eye' was visible a transcendent horizon extending beyond the movie 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 our curious "intelligence" whereby we would even *think* to ask such a question? For 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 might one see the entirety of mind 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 been lost in noble pursuit. But what if a sound alternative was found, 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 it 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, inhale, and exhale. Again. 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 *centered* 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. We can go a few hours without warmth, a few days without water, a few weeks without food, but only mere moments without oxygen. That's why our respiratory function is an unconscious, "brainstem" reflex, something *prior* to mind.⁽¹⁾ In fact, from its burning initiation at birth, to that exhaustive final exhalation, breathing requires no mind at all.

Subsequently—everything *else* must be mind!

Now think about that for a moment. It asserts that *everything* subsequent to involuntary breathing is a matter of mind. That must extend to the entire experiential world of our senses, which is, after all, the *post* production product of our conscious 'upper' brain. The truth is, 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 virtually one and the same.

This is not to suggest, however, that no real 'world at large' exists, for within mind we also find the means and methods by which everything 'out there' becomes ours to explore. With our intellect we've expanded our conscious awareness some forty orders of magnitude, from the innermost atomic to the most distant galactic realms.⁽²⁾ From flint knapping, flickering fires, and cave paintings dancing, to astronauts dancing on the moon, the Hubble Space Telescope, and the Large Hadron Collider, our expanding awareness has enabled us to not only survive and thrive, but effectively explore every conceivable realm. By revisiting the past and imagining the future mind also enables us to seemingly navigate

the invisible continuum of time. Mind presents an unbounded configuration space where our perceptions form the cognitive topography of our 'world at large'. A 'meta'physical mindscape with a virtually unlimited potential for expansion.

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



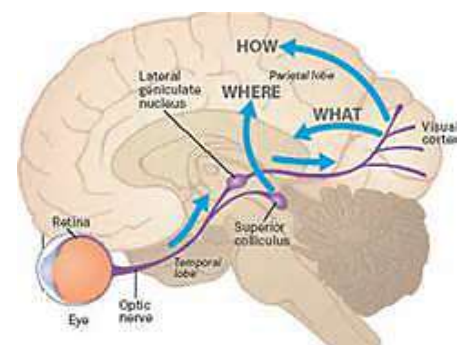
Perhaps the considerable notion that the world we perceive is all a matter of mind just seems too far-fetched to fathom. So let's bring it closer to home. Let's return to the light beam in the movie theater and proceed by analogy to ponder the 'projection machinery'. Here on Earth each of us awakens every day to the feature presentation of our resident star—the Sun. At the source of this solar projector is a fourteen million degree thermonuclear detonation that's been discharging radiation for billions of years.



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 the end, this is where everything *begins*.

When these waves of sunlight terminate they are variously reflected, refracted, and absorbed, and along the way, *animate* everything in their path. Light is where all the action is. It sends molecules into motion and instigates atoms to engage in chemical synthesis. The effective solar bandwidth, if not truly 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, then relayed to the brain for processing. Though direct sunlight is a gigawatt 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 is comparatively small, narrowly selective, and relatively slow, requiring a reset several times a second.⁽³⁾ The neuro-transmitter 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 ever less than what exists just beyond our immediate senses.⁽⁴⁾ The miracle of mind is that somehow, from these mere snapshots of external stimulus, our brain is able to produce a seemingly continuous conscious 'reality'. What *actually* exists however—objective reality prior to our subjective perception of it, is something else altogether: It's entirely electromagnetic! The brain is an electromagnetic interpreter, a biological sense organ performing as a transducer, turning the oscillations of the Sun's electromagnetic field into our *perception* of a 'world at large'. A dynamic display that's been fine tuned for millions of years, every year becoming evermore conscious,⁽⁵⁾ all in the continued service of the survival of our species.⁽⁶⁾

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



Still don't believe that the world you perceive 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' evidence. And fortunately, we don't have to wait to put our conjecture to the test, as the requisite experiment has already been performed. It's one of the defining experiments of "quantum field theory" which is the current 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 screen with two fine slits in it. Those unfamiliar with this demonstration may choose to take a few moments to go to the link below.⁽⁷⁾ For those familiar, what the experiment demonstrates is that observed results differ from results unobserved. Apparently, the very process of perception *in itself* enigmatically determines what is actually 'out there'. What's "wavelike" when unobserved becomes "particle-like" when observed.

What this experiment is clearly demonstrating, therefore, is that *prior* to perception the phenomenology of this moment *is* that of an entirely wavelike, global, electromagnetic field. As shown, only during a refractory interval—upon reflection, does the projected "wavefunction collapse" to reveal the contents of a particle-like, local, here and now.⁽⁸⁾ The experiment thus confirms our conjecture: Prior to perception, reality is entirely electromagnetic, and subsequently—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 its greatest mystery—*ourse/ves*. For what does it mean to be "self-conscious", this purely subjective sense of a reflective observer within? Though seemingly self-evident, many in the cognitive science community doubt that it really exists at all!⁽⁹⁾

So, to finish this brief endeavor let's lastly consider the "self", and whether this 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 act of recentering implies that a 'wandering mind' returns to some synchronous state. But this is possible only if such a unitive state, 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 this unitive 'meditative' state, in the seeming absence of mind, is the omnipresent synchrony⁽¹⁰⁾ of everything under the Sun! And as to the central mystery of this reflective self within? Wouldn't be surprised to find 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."
Schrodinger

Two monks were arguing about a flag.
The first observed the flag was moving.
The second thought the wind was moving.
"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) Curiously, human beings are poised midway between the physical magnitude extremes.
- 3) The eyes reset every ~200 ms. during reflexive eyeball movements called "saccades".
- 4) Of the electromagnetic frequency spectrum, we visually perceive less than .01%.
<https://www.energy.gov/nnsa/articles/visible-light-eye-opening-research-nnsa>
- 5) Consciousness may be an epiphenomenon of the brain's electromagnetic field. (McFadden)
- 6) Mind is an inevitable evolutionary adaptation because comprehension enhances survival. The intellect, in seeking the most coherent path forward, naturally becomes evermore conscious over time.
- 7) <https://www.youtube.com/watch?v=A9tKncAdIHQ>
- 8) It's only during the refractory interval of perception that duration is introduced—events unfolding over time, and meaningful patterns emerge revealing the contents of the Universe. Were it not for the process of conscious reflection how would the Universe be realized?
- 9) Dennett, Blackmore, and Harris (see below).
- 10) That resident 'ringing' you'll find in the meditative state is the white-noise of your cerebral neural network, in synchrony with the entirety of the electromagnetic field, about which we surely have much more to learn. In just a couple hundred years we've gone from its discovery, to where now, via our electronic devices, the EM field is attracting an ever greater share of our conscious 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)
- McFadden, Johnjoe *The CEMI Field Theory* (*Journal of Consciousness Studies*, 9, No. 8, 2002)

Addendum

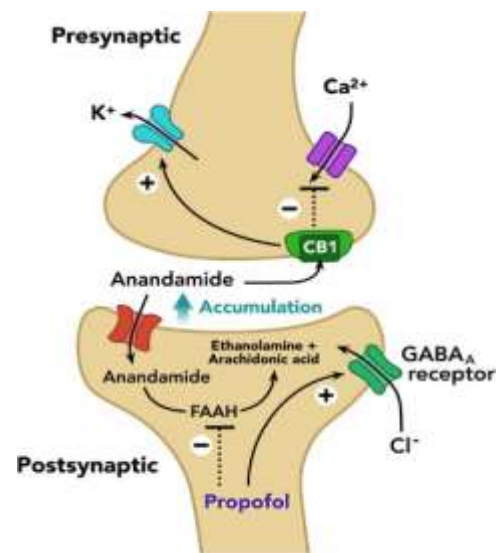
An afterword concerning Cannabis

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 some cannabis vapor, pause and exhale. And again. While you may not experience much this first round, 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 named anandamide, implicated in nearly every aspect of consciousness, including appetite, arousal, and perception itself. Biologically, these compounds are "retrograde" transmitters meaning 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 and use conditions these receptors.



Whereas most 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. 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 human brain and thus shift our perceptions, such that we are consciously reflecting in an enhanced *synchronous* state, is truly a most fortuitous finding. But you won't know what this means until you see for yourself.

Afterall, no two people have the same world in mind.