

Prayer – The Science and the Practice

To the Taoist Chinese it is *ch'i*. To Hindus, *prana*. To the Oceanic peoples it is *mana*. To Australian aboriginals, *maban*. To the Yoruba it is *ashe*. It was *ka* to the ancient Egyptians and *ichor* to our ancient Greek ancestors. Throughout human history there has existed a spiritual concept that humankind and the Universe are interconnected by an omnipresent, all-pervasive sea of energy that permeates all, and is manifest in all. We hear it in the writings of the Sufi poet-theologian Rumi a millennium ago, in the Unitarian essayist–minister Emerson a century ago, in the Catholic paleontologist-priest Teilhard deChardin mere decades ago. Hear that resonance in these excerpts from their writings:

First, from Rumi's "**Say I Am You**" (written sometime between 1260 – 1273)

I am dust particles in sunlight ... I am the round sun...

Both candle and the moth crazy around it. Rose, and the nightingale lost in the fragrance.

I am all orders of being, the circling galaxy, the evolutionary intelligence, the lift, and the falling away.

What is, and what isn't.

You who know, Jelaluddin, You the One in all, say who I am. Say I am you ...

We are the mirror as well as the face in it. We are tasting the taste this minute of eternity.

We are pain and what cures pain, both. We are the sweet, cold water and the jar that pours.

Next from Emerson's **ESSAY IX The Over-Soul** (written 1841)

"... When I watch that flowing river, which pours for a season its streams into me, I see that I am not a cause, but a surprised spectator of this ethereal water; (and) that I desire and look up, and put myself in the attitude of reception, but from some alien energy the visions come ...

... as the earth lies in the soft arms of the atmosphere, [we rest in] that Unity, that *Over-soul*, within which every man's particular being is contained and made one with all other ... that common heart ... , of wisdom, and virtue, and power, and beauty ... the eternal ONE. And this deep power in which we exist, is ... the seeing and the thing seen, the seer and the spectacle, the subject and the object, one.

And from Teilhard de Chardin's "**The Phenomenon Of Man**" (written 1955)

"... Only one reality seems to survive and be capable of succeeding and spanning the infinitesimal and the immense: energy – that floating, universal entity from which all emerges and into which all falls back as into an ocean ... We have seen and admitted that evolution is an ascent toward consciousness ... but must not that consciousness, if it is to be supreme, contain the perfection of consciousness – the illumination of the (universe) upon itself? ...

"... A sense of the universe, a sense of the All, the nostalgia which seizes us when confronted by nature, beauty, music – these seem to be an expectation and awareness of a Great Presence ... this fundamental vibration whose ring can be heard by every practiced ear as the basis, or rather the keynote, of every great emotion: resonance to the All ...

“Thus from the grains of thought forming the veritable and indestructible atoms of its stuff, the universe goes on building itself ... the universe, a collector and conservator not of mechanical energy, but of persons ... a continual exhalation of souls ... one by one, yet not in isolation ... under the synthesizing action of personalizing union, the noosphere (furling its elements upon themselves as it too furls upon itself).”

The presence of all-pervasive and vital energy -- energy that can be controlled to affect our environment -- has formed the basis not only of both eastern and western religious practices; it also forms the basis for many alternative therapies and energy medicines, such as Ayurvedic and Oriental medicine and Reiki. Yet here in the West, this force has been relegated to the realms of the metaphysical, not the physical --- until now. Now science is pointing more to the likelihood that we are surrounded by, supported by, and interact with and within subtle energy. That our brains are structured to enable this interaction, and that the mind is created by, and functions at, that intersection. I begin the discussion of prayer by speaking to the subtle energy that surrounds and permeates. Then I'll summarize some of the emerging thought about brain structure and neurochemistry. Both will relate to the phenomenon of prayer.

Recent scientific discoveries demonstrate that there actually is an all-encompassing energy field infusing and intertwining all of the cosmos, and connecting all to all. In their search for the smallest particle, scientists discovered the so-called Zero Point Field – the ZPF. The name comes from the fact that even at absolute zero-Kelvin, where the movement of the atoms due to their thermal vibration ceases, energy can still be measured and material particles still flit into and out of existence. This background field of energy within the ‘vacuum’ serves as the reference, or zero point, for all processes. You can see the ZPF at work in your everyday lives. Fluorescent lighting relies on the random energy fluctuations of the vacuum state. When atoms of mercury vapor are excited by the electrical discharge in the tube, their spontaneous emission of photons is triggered by the Quantum Fluctuations ‘knocking’ them out of their unstable energy state. The ZPF is also responsible for certain background noise in radios and microwave receivers. Beyond these, there is growing speculation that the ZPF appears able to explain – at least partly-- physical and astrophysical phenomena and processes that had stumped the scientific community for generations, such as gravity and electromagnetism.

The zero point field also helps explain one of the most mysterious of all quantum phenomena – entanglement. Physicists have long noted that particles which at one time were connected to one another – within a molecule for example – remain connected always and everywhere, and influence each other instantly, that is faster than the speed of light and over great distances. This so-called ‘non-locality phenomenon’ shows that the dimensions of time and space do not apply at an elementary, quantum level. Reflect for a moment on this entanglement phenomenon: Particles once in contact with each other remain connected always and everywhere. Now, reflect, too, on the fact that everything in the universe has bloomed from the space-less singularity of the Big Bang. One consequence of this is that we are literally, physically, quantum-ly “in touch” with the rest of the Universe as we share with all the Universe the fluctuating zero-point-energy fields of cosmic dimensions.

Well, if all particles in the Universe are connected, then it follows that this includes at least the biological aspects of consciousness. Many religious and philosophical

traditions have advocated a connectedness of human consciousnesses, of course. It now appears that science is finally illuminating the dynamics of such connectedness. Consider first the research that I summarized for you in my sermon last November on “Death and The Continuity of Consciousness.” You might recall the findings of Dr. Pim vanLommel. Building on research done by Stuart Hameroff and Roger Penrose, vanLommel reports the presence of mysterious microtubules deep within our neurons. Given that our neurons do their work within continuously fluctuating electromagnetic fields, they speculate that these microtubules within our neurons act as receptors of these electromagnetic fields, may be the elementary “carriers” of consciousness and that consciousness, then, is a field phenomenon. Summarizing the position of “quantum mind” research, vanLommel states that

our whole and undivided consciousness with its memories finds its origin in, and is stored in, this phase-space, and the cortex of the brain serves as a relay station for parts of our consciousness and parts of our memories to be received into our waking consciousness. *In this concept consciousness is not physically rooted.* This could be compared with the internet, which does not originate from the computer itself, but is only received by it.

Hold onto that thought as you consider the implication of some startling research recently reported by Dr. Dean Radin, laboratory director of the Institute of Noetic Sciences. In his book, “Entangled Minds,” Radin summarizes a series of experiments done by himself and others, including physicist Guy Vandergrift. Here is the structure of the experiment:

[Two people -- we'll call them Jack and Jill] are taken to separate, heavily shielded chambers to prevent any form of ordinary communication of passing between them. When Jack is ready to begin sending a message to Jill, he presses a button that causes a computer outside his chamber to randomly select one picture from a set of three pictures. The computer displays the selected picture to Jack. At the same time, another computer outside Jill's chamber detects that Jack has initiated his trial, so it too randomly selects and then displays one picture to Jill based on the same picture set used for Jack. Jack and Jill are then asked to mentally communicate and mutually decide whether they are seeing the same or a different picture. They can answer "yes," it's the same picture, or "no," it isn't. Their answers are recorded in their computers. Now they try another trial, with pictures randomly selected from a new set of three pictures. Sometimes Jack initiates the trial and sometimes Jill. The data from each trial are one of four possibilities: yes-yes, yes-no, no-yes, or no-no. They continue this test until they collect a total of 1,000 such trials.

You won't find it surprising that after 1000 trials Jack and Jill are found to have chosen 'yes' and 'no' about 50% each. But remember that each was seeing pictures chosen by computer separately and randomly. Only sometimes were they actually looking at the same picture. So, what percentage of time would you think they both chose the same answer when they both, without knowledge of each other, happened to be looking at the same picture? Probability would say 50%, just the same as each respondent's overall choice rate. Astonishingly, whenever Jack and Jill happened to view the same picture, they gave the same answer not 50% of the time – rather 77% of the time! With 1,000 trials, this hit rate is associated with odds against chance of 225 million to one.

Reporting in the journal *The Philosophical Quarterly* on his similar findings in similar experiments, physicist Dr. Vandergrift admitted, “There seems to be no fundamental reason why two people could not put themselves into [an entangled state] and reproduce what [Jack and Jill] have done here... This affair ... has shaken me to the bone.”

The Jack and Jill experiment results are rattling from the lens of classical mathematical probability. But, as Radin goes on to explain, they are just what you would expect when viewed through the lens of quantum entanglement. The mind, you must understand, is structured energy existing within an energy field – the zero point field. Its actions influence the world around us as demonstrated in Quantum Mechanics. It is surrounded by, and permeated by, the ZPF, in which all particles are connected. To exist, the mind must be able to impose order on the chaotic nature of the ZPF. And, as shown, by affecting the ZFP, we can affect the entire Universe.

The cosmos, the universe, is a living – and conscious – being. This ancient belief today is shared by an ever-growing, if sometimes grudging, number of scientists including more than one Nobel laureate:

- They are mathematical-, theoretical- and astro-physicists such as Joel Primack, Lee Smolin, David Bohm, Brian Swimme, Harold Puthoff, Russel Targ, Roger Penrose and Max Plank himself.
- They are physicians, biologists, psychologists and other life-sciences professionals such as Dean Radin, Larry Dossey, Dan Siegel, Karl Pribram, Stuart Hameroff, Pim van Lommel, and James Lovelock.
- They are philosophers and metaphysicians such as Thomas Berry, Ken Wilbur, Henri Bergson, Aurobindo, and Teilhard deChardin.

They come to their conclusions from many lines of thought and research, but those lines converge on the conclusion that the universe is in a real, not merely metaphoric way, alive and conscious.

Some find this hard to accept because, they would say, “Surely you don’t mean that a rock is alive or that a molecule of gas has life! After all, that’s what most of the universe is: just rocks and gas.” To them I would ask, is that really so hard to believe? Consider the smallest of the trillion cells of our own bodies. No one would doubt that every one of those cells is alive. And yet the component parts of a cell are not alive – at least not separately. But somehow in the course of their self-organization and their interdependence, they are vivified. Life emerges! This emergent property of life is the single greatest miracle in the universe. Over the millennia and down to this day, awed by this miracle, many believe that surely there must be a supreme and omnipotent creator-God who holds all in the palm of his hand. I, too, believe in god, but that’s the name I give to that force that permeates and vivifies every square centimeter of earth and micro-milliliter of space. Just as each of our bodies is a whole ecosystem of life layered on life, so too is our planet and so too, the entire cosmos. And just as our mind is not localized to our brains and nervous system but is everywhere in our bodies, so too is the mind of the cosmos.

Finally, before we discuss prayer, let me briefly note the implications of some discoveries in neurochemistry. You all know, I’m sure, that there is a variety of psychoactive substances that have been used to produce ecstatic states. These include ergot, mescaline, LSD, DMT, and MDMA (commonly called ecstasy). Their use in shamanic

and mystery rites go back millennia and are still used today. Because they share a common ability to produce various ecstatic experiences, they are often referred to as “entheogens,” meaning “god-inducing.” But the really interesting thing is that some of these chemicals – and DMT in particular – are naturally produced within our brains, indeed throughout our bodies. According to recent research, our nerve endings in are coated in DMT and we have DMT in our lungs, spinal fluid, blood, and brains. Noting this fact, ethnohistorian and scholar of comparative religions, Dr. Martin W. Ball has suggested that

we are surrounded and filled by DMT for a reason, and that reason is to communicate with the divine. [*I'd prefer the words Cosmic or Universal.*] Our nerve endings have DMT on them so that when we enter into spiritual states of consciousness, we can feel the divine as energy coursing through us. DMT is in our lungs so that when we take in that breath of inspiration, the divine can fill us with its energy. There is DMT in our brains so that we can open our minds to the divine energies that surround us and course through our beings. DMT, simply put, is true communion with the divine. It is the very medium through which spiritual experience occurs.

This has everything to do with what prayer is. But first, let me ask you, hasn't every one of us said the phrase, “I was thinking to myself”? Do we think to ourselves? I'll bet you've never stopped to consider what that phrase would really imply. If the phrase were literally true, it would imply that somehow you catch a thought that didn't arise from you – from where we don't know, but not from you – and without comprehending what the thought was, you would send it to your brain where, finally, it could be apprehended by you. My friends, we may think by ourselves, or for ourselves, but we never think to ourselves. When we use that phrase, what we really mean – and we'd say, if it didn't sound so odd – is that we think from ourselves. The truth is that our thoughts arise from within ourselves and emerge into our conscious minds. Sometimes those thoughts emerge from our shadow selves or our fearful selves or our uncompassionate selves and emerge as what Buddhist meditation teachers call the “monkey mind” – yammering, distracting and sometimes negative thoughts. In learning to meditate, we learn to clear our minds and connect with – or, if you will, think from – our best-self, our core. The core of power, wisdom and compassion in you and me and in everyone.

Prayer is just like that, I believe. Despite the common practice – and even the dictionary definition – it's wrong-thinking to pray to, or even for, anyone, or anything. Rather, you pray from! From an abiding realization that god, being the name we give to the life force and creative energy of the universe itself, infuses and intertwines all – you and me, the trees and flowers, the seaside pebbles and the peaks of the mountains, the gasses of the Orion Nebula, the intergalactic voids, and distant neighbors circling some planet of a solar system in Andromeda. From an abiding realization that, as none other than Max Plank himself once said, “All matter originates and exists only by virtue of a force ... a universal consciousness – a mind. This mind (of the universe) is the matrix of all matter.”

This cosmic consciousness, -- Emerson's Oversoul and Teilhard's Noosphere -- is a repository of intelligence, and power, and creativity to which we are connected and contribute, and from which we can draw inspiration and power. Indeed, you and I are the very activity, the expression, the incarnation of god, no less than was Isaiah and the

prophets of old, no less than was the Buddha, no less than was Mohammed, no less than was Jesus. So, if you would pray, then it only makes sense that you pray *from* your connectedness to, your participation in – indeed your incarnation of -- divine mind and creative force.

“What is this kind of praying like?” you might ask. Well, it is different from what typically goes for prayer and it has three steps. (Experienced practitioners of Buddhist meditation will find in this a resemblance to Tonglen meditation.)

First, relax, let go and set your intention. Let go of the involuntary tensions and distractions of your “monkey mind” and enter into silence. As in meditation, relax into a deep and rhythmic breathing. You will enter an alpha frequency of about 7 to 9 Hz which will be in synchrony with the earth’s natural field energy of 7.8 Hz. Allow yourself to contemplate – to experience – your connectedness to, and the particular aspect of, cosmic intelligence and creative force from which you will channel power. For example, let’s imagine that you’re concerned about a loved one with pneumonia. The problem with pneumonia, of course, is the progressive weakness and constriction that comes from the inability to breathe deeply and exchange oxygen. The cosmic aspects in the opposite direction are strength, energy, depth and expansiveness. These will form the core of power from which you will pray.

Second, manifest that power in affirmation and only in affirmation. What do I mean by that? Again, consider your loved one with pneumonia. Don’t affirm the illness by saying a prayer like, “cure his pneumonia.” When healing, Jesus didn’t say something like, “From this day forward, you won’t be blind.” No, he would say, “Open your eyes because from this moment on you can see.” So, too, the second step in this form of prayer is to visualize only the positive state and pray the affirmation. So, in this case, visualize your loved one as strong and well, and breathing deeply the sweet smells of the season; incarnate those energies and channel them into the world and into your loved one; and give thanks for the healing and energizing power of nature that courses through you to him and beyond to all.

Third, believe and feel grateful to be part of the living Cosmos' way of tending to itself, nourishing itself, growing itself, healing itself, learning about itself, enjoying itself. Believe and feel grateful that you are the life-giving Cosmos’ way of delivering those graces to itself – that is, to ourselves and each other. Believe and when complete, say “Amen and Blessed be!”

In closing I offer you these words from the Gibran’s *The Prophet*:

Speak to us of Prayer

And he answered... saying:

You pray in your distress and in your need;
would that you might pray also in the fullness of your joy and in your days of abundance.

For what is prayer but the expansion of yourself into the living ether..?

And if it is for your comfort to pour your darkness into space...
It is also for your delight to pour forth the dawning of your heart.

And if you cannot but weep when your soul summons you to prayer...
She should spur you again and yet again... though weeping...
Until you shall come laughing.

When you pray you rise to meet in the air those who are praying at that very
hour...
And whom, save in prayer, you may not meet.

Therefore let your visit to that temple invisible be for naught but ecstasy
And sweet communion.

For if you should enter the temple for no other purpose than asking,
You shall not receive.

And if you should enter into it to humble yourself,
You shall not be lifted.

Or even if you should enter into it to beg for the good of others,
You shall not be heard.

It is enough that you enter the temple ...

God listens not to your words save when
He Himself utters them through your lips.

Believe and say, "Amen".

Blessed be.