

Vibrations and Spiritual Communication

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Abstract

A host of phenomena, usually labeled paranormal—including many spiritual practices—may be regarded as forms of communication with a higher intelligence, by means of *vibrations* of a *mental field*, in the ambiance of mystical cosmologies, or models of consciousness: *spiritual communication*. In this short note we focus on some of these phenomena, and propose mechanisms based the cymatic concept: vibrations create forms. In the present application, vibrations in a mental field are imagined to create mental forms, or ideas.

Finally, a mathematical model for a vibrating mental field is proposed, based on my book, joint with Sisir Roy, *Demystifying the Akasha*. This model is an atomistic, rather than continuum-based, model, and belongs to the emerging field of mathematical cosmology. A mathematic ladder is constructed, ascending and descending the levels of consciousness, much like a transatlantic telegraph cable. Mathematical theories of information transmission may be applied to this channel.

1. Introduction

The phenomena to be considered here are from alternative medicine (the placebo effect, homeopathy, acupuncture) and from spiritual practices (prophesy, meditation, prayer, psychedelics, and conversing with angels.) Several conversations with friends contributed to the ideas presented here. I am especially indebted to Raymond Trevor Bradley, Scott Clements, Frank Galuszka, Kelley Landaker, Jason Louv, Rupert Sheldrake, and Rick Strassman. A talk with Rick Strassman gave the initial impetus for this article.

Rick Strassman and super-placebos

During November, 2017, I visited Santa Fe, New Mexico, on holiday with my family. At this time there was great interest in new research on psychedelics as medicines. It was in the air. Here I met with psychotherapist Rick Strassman. Rick is the author of two recent books on DMT which are relevant to this new wave of research.¹

Rick had noticed that the converging results of new medical research with psychedelics — MDMA, LSD, DMT, psilocybin, ayahuasca, ibogaine, and mescaline — reveal that several of these were effective with several of the afflictions studied — PTSD, addiction, depression, anxiety, etc. For this reason he had begun calling the substances *super-placebos*. As Rick explained his idea to me, a possible mechanism for it and related phenomena occurred to me, which I will now describe.

Philosophies of mind

Neuroscience and most cognitive studies are fundamentally *materialist*. That is, perceptions, sensory representations, memories, and thoughts, are all regarded as physical states of the biological brain.

Idealism is an opposing view, in which states of the individual intelligence are regarded as the basis of reality. Here we have a broader view, in which states of the active intelligence are the basis of reality. We might call this *cosmic idealism*.

Nondualism emphasizes the connection, or unity, of the individual and the cosmic. In these systems of thought, cosmic consciousness is primary.² This perspective is the basis of the current work.

This viewpoint is regarded as *paranormal* by materialists, especially traditional scientists. After all, the scientific method is based upon repeatable observations, and therefore must focus mainly on the material aspects of nature. Meanwhile, our concerns are fundamentally inscrutable. Some circumstantial evidence for the mental field concept comes from phenomena such as telepathy, precognition, and so on, which are our primary concern in this article.

The mental field concept

Transcendental philosophies of mind have an individual soul or mind closely connected to the biological brain, and usually a cosmic soul or mind as well. The nature of the mind, and its connection to the brain, is conceived in terms of fields. The fields

¹*DMT, the Spirit Molecule* (2001), and *DMT and the Soul of Prophecy* (2014).

²See for example, (Sheldrake, 1981), (Goswami, 1993), (McTaggart, 2001), and (Laszlo, 2009).

of physics (gravitational, electromagnetic, nuclear) may be inadequate, in which case, additional fields may be hypothesized – mental fields.

The cymatic concept

The evolution of cymatics, beginning from the Renaissance, is described in a later section. The current form, which is the basis of the vibrating mental field concept developed here, is due to Hans Jenny in the 1960s. He studied the forms realized in liquids under the influence of a physical vibration. The translation of this idea to vibrations and forms in a mental field occurred to me during my stay in India in 1972.³

Models of consciousness

In prior writings I have based my models along the classical Sanskrit line: planes and vibrations of consciousness and the like. With up to 36 planes, the details tended to obscure my ideas. Here, I will resort to the simplest model, which has evolved from Plato and Aristotle through ancient, medieval, and Renaissance philosophers — Greek, Islamic, Jewish, and Italian.⁴ I will begin with a cosmological model due to Aristotle, and then apply the model to prophesy and the other paranormal phenomena mentioned above.

Disclaimer

Regarding the philosophies of mind and all the theories put forward here, I am agnostic. Everything is pure speculation.

2. The evolution of Aristotelian cosmology

The philosophy of Plato was elaborated in the Neoplatonic line — Ammonius Saccas, Plotinus, Porphyry, and Proclus — which reached us, after a lapse, in the Greek/Arabic translations of Baghdad around 800 CE. The Platonic Corpus itself reached the West only later, in the Greek/Latin translations of Ficino around 1400.

³See (Abraham, 1973) and sequels.

⁴The roots of these ideas in ancient India, from the Vedic literature (1500 BCE) have had an independent evolution in the Sanskrit tradition, and also in Western Esoteric tradition, such as Theosophy.

Meanwhile the philosophical writings of Aristotle were read and translated continuously from the time of Christ. It fell to the Medieval Islamic philosophers to harmonize Plato and Aristotle.

Here I will be interested especially in the two intellects — active and passive — introduced by Aristotle, the idea of emanation introduced by Plotinus, and on their combination by Alfarabi into a basic model of consciousness. It is this basic model that I will elaborate into a mathematical model for prophesy, the placebo effect, spiritual practices (meditation, prayer, and psychedelics), and conversing with angels.

Aristotle

In *Alfarabi, Avicenna, and Averroes on Intellect*, Herbert A. Davidson wrote,

The most intensely studied sentences in the history of philosophy are probably those in Aristotle's *De anima* that undertake to explain how the human intellect passes from its original state, in which it does not think, to a subsequent state, in which it does. ... he found the intellect to be a "part of the soul" ... Aristotle brought to bear a dichotomy pervading his entire philosophy, positing that the various domains of the physical universe disclose both a "matter" and a "cause" or "agent", which leads the matter from potentiality to actuality; and he inferred that the same distinction must also be "present in the soul." ... The intellect that is what it is "by virtue of becoming all things" came to be known as the *potential* or *material intellect*, and the intellect that is what it is "by virtue of making all things," as the *active intellect* (*nous*, *active mind*, *active intelligence*, *active reason*, *agent intellect*, *productive intellect*).⁵

While Aristotle's meaning of the potential and active intellects remains obscure, the concepts have evolved over the centuries in the treatments of many philosophers who followed in the Aristotelian tradition.

Plotinus — whose cosmology comprised four hypostases: the One, from which emanated the Intellect, and from that the Soul, and from that the Body — identified his Intellect with the active intellect of Aristotle.⁶ Into this sequence Ficino interpolated the Spirit between the Soul and the Body.

⁵Davidson, 1992; p. 3

⁶Davidson, 1992; p. 14

Alfarabi

Alfarabi (872–951) was a Persian or Turkic philosopher, scientist, cosmologist, and music scholar. In his philosophy he harmonized Plato and Aristotle. To each of Aristotle’s nine nested celestial spheres he added causal connections in the form of Neoplatonic emanations. Each sphere has an intelligence which emanates the intelligence of the next sphere nested within. The ninth intelligence, belonging to the lunar sphere, emanates a tenth intelligence which rules the sublunar realm, which contains the stationary Earth, at the center of the whole scheme. It is this tenth intelligence which is identified, by Alfarabi as the active intelligence of Aristotle, in his *Al-Marina al-Fadila*, finished shortly before his death in Damascus.⁷

Thus with Alfarabi we have arrived at a fusion of the emanation idea of Plotinus with Aristotle’s idea of the active intelligence as the agent behind the arising of thoughts in an individual human soul or mind. It was the Medieval Jewish philosophers who took the next step: the application of this model to prophesy.

3. Prophecy

The connection between higher mind, (the active intelligence, intellect, or cosmic soul), and the lower mind (the individual human mind or soul) is manifest in all so-called paranormal phenomena, including the prophesy. In the Renaissance Neoplatonism of Ficino, this connection between the cosmic soul and the human intellect is made through the mental field he called spirit. We now consider prophesy within this context. Prophesy is the epitome of this spiritual connection, in which divine information is downloaded through the field into the receptive mind of an adept, the prophet. This phenomenon was a special concern of medieval Jewish philosophers, including: Saadiah Gaon (933), Judah Halevi (1140), Ibn Daud (1160), Maimonides (1190), Gersonides (1329), Hasdai Crescas (1410), Joseph Albo (1425), and Baruch Spinoza (1670). Their contributions are studied in depth in the work, *Prophecy: The History of an Idea in Medieval Jewish Philosophy*, by Howard Kreisel (2001).⁸ Here I shall select a few details from Kreisel’s chapter on Maimonides.

It was Ibn Daud’s misfortune that shortly after the appearance of his work [*Exalted Faith*] a different one was to push it aside almost completely — Maimonides’ *Guide of the Perplexed*. Ibn Daud in many ways should be considered the pioneer in the introduction of Aristotelian thought

⁷Davidson, 1992; pp. 45-46

⁸For thumbnails of some of these, see (Strassman, 2014; pp. 302-304).

into Judaism, particularly along the lines laid down by the great Islamic philosophers, Alfarabi and Avicenna. It was Maimonides' more widespread efforts in this area, however, which carried the day. The *Guide* became the focus for all subsequent Jewish philosophical approaches.⁹

Kreisler omitted Ibn Daud from his book because he was eclipsed by Maimonides, thus he had limited influence on later philosophy. Thanks to Wikipedia, we may easily find Ibn Daud's theory of prophecy.

The connection between the mind of the prophet and the higher intellects, principally with the Active Intelligence, furnishes a sufficient explanation of the higher cognitive faculty of the prophet, as well as his power of transcending natural law. Appointed to become an intermediary between God and man, the prophet is elevated almost to the plane of the separated intelligences, or angels. (*Emunah Ramah*, Solomon Ben Labi, Hebrew transl. p. 73; S. Weil, German transl. p. 91)

In his *Commentary on the Mishnah* (1145–1169) Maimonides gives this definition of prophecy.

The sixth principle — prophecy. That is, one should know that there are human beings possessing a superior nature and great perfection. They prepare their souls till they receive the “form of the intellect.” The human intellect then conjoins with the Active Intellect. From it, a noble emanation emanates upon them. These are the prophets; this is prophesy and this is its essence.¹⁰

For a more complete description of the mechanisms of prophesy in Medieval Jewish Philosophy, including the role of the Active Intellect, see Strassman, *DMT and the Soul of Prophecy*.¹¹

4. The Placebo phenomenon

Observed commonly in medical research and practice — in drug trials with pills and injections, recovery from surgery, and so on — this phenomenon is usually considered normal, rather than paranormal.

⁹(Kreisler, 2001; p. 22, fn 10).

¹⁰This is Kreisler's translation from the Arabic original, p. 169.

¹¹(Strassman, 2014; pp. 243-247).

Placebos

The word placebo is from *placere*, Latin, to please. Traditionally, the placebo, a fake medicine, was given to spoof a patient into an improvement. Nocebo, from *nocere*, Latin, to harm, is used for the analog with a negative effect, as in a magical or voodoo curse.

Placebos are used as controls in clinical trials on the effectiveness of medical procedures. For example, two groups of subjects are given pills, with one group taking the drug being tested, and the other group taking sugar pills that seem identical. This pattern may be followed also to test injections, or surgical procedures. The placebo effect has been offered as an explanation for alternative medical procedures, such as acupuncture and homeopathy.

The placebo effect

In experiments, placebos are supposed to produce no outcome. However, the experimental findings frequently show a mysterious result: The placebo acts to some degree like the agent it is supposed to mimic. This is the placebo effect. The mystery is: How does it work? The usual explanation is suggestion. But then, how does suggestion work? Remote prayers have been shown to improve recovery from surgery. Not even suggestion is able to explain this.

Placebo studies is an academic field, begun at Harvard Medical School in 1954, to study the placebo effect.¹² Studies have shown that placebos, even simple suggestions, affect neurotransmitters, and these in turn affect the patients health, pain, anxiety, etc. Thus, the placebo effect might be subsumed under the larger category of *suggestibility*. The mystery remains: How does a thought affect the brain?

This mystery, action from mind to body, is the inverse of the mystery of the psychedelic effect, in which an ingested chemical, interacting with neurotransmitters, changes the state of the mind. What is lacking is a model of the mind/body system in which these effects are understandable. One such model is the complex dynamical system described in *Demystifying the Akasha*.¹³

Super-placebos

The super-placebo idea of Strassman goes beyond the theory of suggestibility, as one psychedelic may be found effective for certain health problems but not others. This is the seed for the idea presented here, of a medical college in the sky. According to

¹²For a detailed history of the placebo effect, see (Dispenza, 2014; Ch. 2).

¹³Abraham and Roy, 2010

this idea, the Active Intelligence (or higher realms) knows of cures for diseases before earthly medical science discovers them, and communicates the needed information to the human intelligence of the patient via prophesy.

5. Meditation, prayer, dreams, and psychedelics

While these practices may have medical applications, we are usually more interested in them for their spiritual applications. That is, we regard them, like prophesy, as spiritual practices.

Meditation

In the first chapter of his recent book, *Spiritual Practices*, Rupert Sheldrake explains, in his typically clear style,¹⁴

Of all the spiritual practices discussed in this book, meditation is the most inward. When meditating, people withdraw from normal activities. and usually sit still with their eyes closed. ... Meditation is not about intentions or requests: it is to do with letting go of thoughts.

Nevertheless, letting go of thoughts is not easy, and from time to time, thoughts may arise. In the 1980s, several Buddhist monks from Burma visited Santa Cruz, and involved me in studies of the *Abhidamma*, from the Pali Canon. I came to understand that dhamma theory was discovered through insight meditation, by watching carefully the arousal of an idea into the quiet mind through a dynamical process.

Thus, the apprehension of the chain of being, that is, the connection of the individual mind to the active intelligence and higher realms, occurred in the spiritual practice of meditation, perhaps over 600,000 years, of adepts and shamans among the Neanderthals and early homo sapiens.

Prayer

In *Spiritual Practices*., Sheldrake continues,

I both meditate and pray, and I think of the difference between them as being like breathing in and breathing out. Meditation is like breathing in, directing the mind inwards; and prayer like breathing out, directing the mind outwards.

¹⁴(Sheldrake, 2017; p. 23)

Prayers function as a dialogue with a higher mind, asking for an intercession or reply. A line of communication up the chain of being is tacitly assumed. Some sort of vibratory or digital transmission up the chain is requested, and to the degree the prayer succeeds, the transmission is validated.

But not all prayers initiate a dialogue,

... obviously many prayers don't; so much depends on state of consciousness and intentionality to produce creative vibrations.¹⁵

Dreams

The dream state has many functions, some discovered recently through dream research and imaging technology such as the MRI.¹⁶ Two of these functions are of special interest here. Creative dreams and precognitive dreams. Many creative dreams have been recorded. Those of Dmitri Mendeleev (the periodic table), Otto Loewi (Nobel prize for synaptic communication), Paul McCartney (the song Yesterday), Keith Richards (Satisfaction), and Mary Shelley (Frankenstein) are detailed in Walker (2017).

Precognitive dreams have been experienced by many people, including myself. A spectacular case is described in detail in J. W. Donne's *An Experiment with Time* of 1927. These dream functions are closely related to prophesy.

Psychedelics

The experience of a psychedelic trip is like meditation on steroids. At least in my experience of multiple explorations with LSD and DMT during the 1960s and 70s, the connection from my mind upwards one or more levels of the cosmic mind structure were manifest as direct perceptions, with visual, aural, and emotive aspects, in an apparent download of information with a heightened sense of reality. To some extent, questions could be posed and answered. The visual phenomena in particular suggested the vibration metaphor of the Vedic literature and Yogic tradition of India.¹⁷

The psychedelic experience, an opening of the spiritual channel, was my original motivation for my writings on this subject, which began in 1973 after my return from seven months in India.

¹⁵John Allen, author of *Me and the Biopheres*, personal communication.

¹⁶A wonderful account is given in (Walker, 2017).

¹⁷The ancient vibration metaphor was revived in the late 18th century in the Theosophic tradition of Madame Blavatsky and Annie Besant. See (Besant, 1900; p. 31).

6. Conversing with angels

A *grimoire* is a textbook of magic. The magic tradition has ancient roots, and the Alexandrian library from the time of Aristotle likely contained such textbooks. An early and extant exemplar is the *Hermetic Corpus*. Several Medieval grimoires were influential, such as the 13th century *Picatrix*. The lore of angels, devils, demons and so on, based on the Bible, is fundamental to the practice of magic, in which angels are called, spells cast, and so on.

John Dee

John Dee (1527–1608), mathematician, alchemist, and astrologer to Queen Elizabeth I, was important to the history of mathematics as the sponsor of the first translation of the *Elements* of Euclid into English. This book, among the best editions of Euclid ever to appear in print, begins with a Preface by Dee, in which the future of applied mathematics was forecast with amazing clairvoyance.

In the second half of his life, Dee turned to magic in search of the secrets of nature, and the hidden future of science. His practice, now called angelic magic, or sometimes Enochian magick, involved calling angels, and then conversing with them. Dee, working with various scryers, would call angels, pose questions to them, and apparently receive answers. Many of these conversations were recorded in diaries and published in Latin as *The Five books of Mystery*.¹⁸

While the language and nomenclature of these conversations are very strange, it does seem that valid information was encoded within them. Thus, we have here a novel paranormal phenomena in which the contact between the active intelligence or cosmic mind and the individual human mind is a bidirectional link, like an undersea telegram cable.

Her is an example, from the spirit diaries of John Dee, in Prague, 1584.¹⁹

By October 1, Jane Dee was grievously ill; Dee and Kelly consulted the angels to ask why, and how to cure her. Gabriel asked them who they were to dare seek after science, and reminded them to grovel and to turn away from the sin of the world. After this chastening, Dee and Kelly were given a magical theory of disease; if sickness came from sin, Gabriel explained, it could be cured by prayer, or by the angels, as ministers of God's justice. He offered to spend forty days teaching them medicine, and offered a diagnosis of Dee's pregnant wife. The next day, they were

¹⁸An excellent summary of Dee's angelic diaries may be found in (Louv, 2018).

¹⁹Quoted from (Louv, 2018; p. 273).

given a recipe for a folk remedy by the angels, but told that they would have no more until they were repentant, and made apt again for the angels' school.

We now turn to physical and mathematical models of this connection by emanation.

7. Physical models

Several physical models share a common feature: the creation of forms by vibrations in a field. Some physical systems are highly suggestive of the informatics link between the active intelligence and the individual mind. Here are some of them.

Cymatics

Early in 1972, I discovered the book, *Kymatik, Band 1*, published 1967 in German (also in English as *Cymatics*) by Dr. Hans Jenny (1904–1972). I was inspired to go to see him as soon as possible. We met at his home in Dornach (near Basel) shortly before his death, where he showed me his laboratory, and some films of his research results similar to the photographs in his book. See Figure 1.²⁰

On returning to Santa Cruz in 1974, I reproduced his laboratory with modifications. The main instrument, dubbed the *Jenny macroscope*, was a device to study the evolution of form from vibrations in the context of catastrophe theory.²¹

The history of cymatics includes the following milestones.

- 1490, Leonardo da Vinci observed patterns formed in the dust on a tabletop on which he drummed with his hands.²²
- 1787, Ernst Chladni, the founder of the acoustics, used patterns of sand (*Chladni patterns*) on vibrating glass plates to design better sounding glass harmonia.
- 1831, Michael Faraday observed standing wave patterns on the surface of beer on the tops of barrels being transported by a horse-drawn wagon.
- 1967, Hans Jenny, a medical doctor in the anthroposophic movement, studied Chladni patterns in sand, lycopodium powder, and liquids on an acoustically vibrated plate.

²⁰(Jenny, 1972; frontis.)

²¹(Abraham, 1974)

²²See (Capra, 2007; pp. 231–235).

- 1974, the Santa Cruz macroscope extended the work of Jenny to study the bifurcations of Chladni patterns in the chaotic regime of the control parameters (acoustic frequency and amplitude.)
- 2017, Merlin and Rupert Sheldrake extended the the work of Jenny with extraordinary precision.²³

The macroscope may serve us now as a physical metaphor for the link between a human mind and the active intelligence.²⁴

The macroscope

This is a simple device built for cymatics research. It manifests the emergence of form under the influence of a vibrating field.

In Figure 2, a schematic view of the first Santa Cruz macroscope, the upper two elements (xenon arc light and condenser lens) and the lower three elements (objective lens, color filter, and projection screen) comprise the optical system. This makes deformation waves on the surface of the object (a thin layer of transparent liquid) visible as a colored animation on the screen.

Removing these five elements from the schematic, the physical heart of the system remains: a heavy brass plumbing tee for four-inch pipe connecting four elements,

- top: the transparent liquid in a dish with a flexible and transparent bottom
- side: a vibrating loud speaker driven by an electrical oscillator,
- bottom: a rigid plate closing the interior of the plumbing tee, and
- within: air at ambient pressure.

This subsystem of the macroscope is a physical model for the link from the active intelligence to the individual human mind/brain, as:

- loud speaker \Leftrightarrow active intelligence
- enclosed air \Leftrightarrow spirit or mental field
- layer of liquid \Leftrightarrow mind/brain system

²³(Sheldrake and Sheldrake, 2017)

²⁴From (Abraham, 1975; p. 143).

Organs of perception

A sound wave in the atmosphere is perceived by the mammalian cochlea in a cyclic process. The basilar membrane is deformed by the sonic vibration, and its deformation measured by the hair cells of the organ of Corti, as discovered by Georg von Bekesy, 1926.

Similarly, smells are identified by the mammalian nose by pattern recognition of a transitory wave of electrical activity on the olfactory bulb, as discovered by Walter Freeman, 1960s.

Taste and the tactile sense may be similar, but vision is more complicated. In any case, the human mental sensitivity to waves emanating from the active intelligence may be regarded as a sixth sense, analogous to the five material senses.

Electric field waves

Imagine an electric field freely vibrating in a two-dimensional plane. Now suppose the field is clamped by two grounded conductors, one a square, the other a triangle. The field continues to vibrate between and around the clamps.

Alternatively, imagine a bed sheet stretched horizontally by springs. Two small clamps near the center prevent the sheet from moving. Figure 3, taken from a computer simulation of a waving sheet or field, shows a birds-eye view of this configuration.

Consider the square the sender, and the triangle the receiver. Imagine that the receiver has a recording device along a boundary line segment, recording the signal strength as a function of time. The recording is the signal received from the sender, and contains a signature of the shape of the sender.

If the sender suddenly changes shape, for example from square to circular, then the receiver can detect the change in the signal. This idea has been proposed as a model for telepathy from a human to a dog.²⁵ It may similarly be a model of the link from the active intelligence to human intelligence, in all the phenomena considered here.

Mental field waves

Combining ideas here, we may begin with the cosmology of Aristotle: the active intelligence or cosmic consciousness (A) is coupled to an individual human consciousness or mind (M) by an intervening mental field such as the spirit of Ficino (F). An idea

²⁵(Abraham and Broadwell, 1997)

of new pattern in A propagates through F and is recorded by M as a space-time pattern. Or vice versa, an idea in M propagates through F and is recorded by A.

Such a conversation might be the basis of phenomena such as prophesy, the placebo effect, communications with angels, and so forth.

8. Math models

Two exemplary models will suffice to demonstrate the power of computational mathematics in the study of consciousness. These models extend far beyond the usual static models, such as parallel planes or concentric spheres: they are dynamical systems. The computational versions of these models provide for computer graphic simulation of the vibratory process.

Discrete Poisson equation.

The first example begins with the final physical model of the preceding section, the vibrating electric field in the plane. The standard model from mathematical physics is a two-dimensional partial differential equation (PDE) called the Poisson equation. For computational purposes the three dimensions of time and space are discretized. That is, each continuous variable is replaced by a discrete approximation, a finite set of points equally spaced in the line segment chosen for that coordinate variable for the simulation.²⁶

The computer graphic video generated by this model illustrates how the change in shape of the sender is recorded as a space-time pattern in the optical memory of the receiver. One frame from the video made for is shown in Figure 3.²⁷

The digital akasha

The second example is also from mathematical physics. The computational version of a PDE, as above, belongs to the mathematical category of cellular dynamical systems. But this category is much larger than the subcategory of discrete PDEs. This example is based on a cellular system that has been proposed as a model for the quantum vacuum (QV).

The QV may be regarded as a physical field filling the universe, like the electromagnetic (EM) field of the preceding model. The QV has been proposed as a model for cosmic consciousness by some authors, most notably, by Ervin Laszlo.²⁸

²⁶See the Wikipedia page for “Discrete Poisson equation.”

²⁷(Abraham, Broadwell, and Radunskaya, 1996)

²⁸For an excellent review, see (Laszlo, 2004; Ch. 4).

The adaption of an historical QV model to the cosmology of Kashmiri Shaivism is the subject of the 2010 book, *Demystifying the Akasha*.²⁹

Akashic information theory

Telegraphy was born in 1839, and the first transatlantic telegram was successfully transmitted from Ireland to Newfoundland in 1858. And Alexander Graham Bell was awarded the first patent for the invention of the telephone in 1878. These technologies, the digital and the analog, are basic to our conceptions of spiritual communication.

Dennis Gabor, born in Budapest in 1918, studied engineering in Berlin, and fled the Nazis to Britain in 1933. There he invented holography in 1947, for which he was awarded a Nobel Prize in 1971. His paper *Theory of Communication* appeared in 1946 in three parts. The first part applies a modified Fourier analysis to information conveyed through channels of communication. Time and frequency have symmetrical roles, and quanta of information called *logons* are introduced. In the second part, the theory is applied to hearing. The third part applies to the compression of speech and music.

Karl Pribram was born in Vienna in 1919, and moved to the USA in the 1930s. Known for many fundamental contributions to neuroscience with more than 700 papers and 25 books from the 1940s until his death in 2015, he may be best remembered for his application of holography theory to the neurophysiology of perception and memory, beginning in 1966. He adapted ideas of Gabor from optical holography (as in MRI technology) to the biological neural network in a theory he eventually called *holonomic brain theory*. Due to the special role of quanta of information, Gabor's logons, this theory is also known as *quantum holography* or *QH*. A careful history is given in Pribram's Lecture 2 of his *Brain and Perception* of 1991.

From Raymond Trevor Bradley's manuscript *The Lens of Love*:

Quantum Holography—A Recap

Before proceeding, it is necessary to reiterate Gabor's concept of a quantum of information—the fundamental informational unit in quantum holography. As previously noted, Gabor's concept is radically different from, though related to, the more commonly used measure of information the BIT—the BInary digiT—developed by Claude Shannon (1949). While

²⁹The akashic field has been proposed as a mechanism for the cosmic mind in a series of books by Ervin Laszlo; eg: 2003, 2009.

Shannon dealt with a *reduction in uncertainty*, Gabor designates the *minimum uncertainty*—a limit beyond which a message cannot be compressed. Drawing on the mathematics of Heisenberg’s concept of uncertainty in quantum physics, Gabor determined that there exists a restriction to communication of a “message” encoded in a signal due to the limit of precision in concurrent measurements of the signal’s energy spectral components (frequency, amplitude, and phase) and its (space)time epoch. Treating energy–frequency and (space)time as orthogonal coordinates, Gabor was able to show mathematically that, at the *limit*, accurate measurement of the signal can be obtained only by minimizing uncertainty on both ordinates... This limit of precision defined *the minimum uncertainty with which a signal can be encoded as a pattern of energy oscillations across a waveband at any frequency*, as in the encoding and transmission of vocal conversation for telephonic communication.

As previously noted, Gabor called this minimum area of measurement a *logon*, or a *quantum* of information—hence the term “*quantum holography*” ...³⁰

In Pribram’s collaboration with Raymond Trevor Bradley since 1997, QH is extended from an internal neural network to external behavior of a social group. QH has been further extended to nonlocal communication by Bradley.³¹

All of this information theory is obviously relevant to the math models described above, as they may be interpreted as a sort of transatlantic telegraph cable connecting an animal intelligence or soul and the active intelligence or oversoul. The discrete akashic model described above may be interpreted as the digitization of a generalized cable equation from mathematical physics. And the existence of this model outside of conventional space and time suggests a Gabor holographic transformation from the space-time representation of ordinary reality.

9. Conclusion

So we now have on the one hand this host of paranormal phenomena, and on the other hand, a cognitive strategy, a simple vibrational cosmology, which may unite them. This cosmology comprises the active intelligence or oversoul and billions of individual intelligences or souls, all having bidirectional links to the oversoul that are cymatic in nature: vibrations create forms. For example, a vibration emanating

³⁰(Bradley, 2018; ch. 5)

³¹(Bradley, 2007)

from the active intelligence or cosmic mind realizes a form, an idea, in an individual mind.

We have proposed spiritual communication as way of understanding several phenomena: prophesy, placebos including homeopathy and acupuncture, meditation, prayer, psychedelic explorations, and angelic conversation. Similarly, telepathy might be accommodated by spiritual communication in either of two ways: a direct transmission through the mental field from one individual mind to another (M1 to M2), or, from one individual up through the field to the active intelligence and down through the field to another individual (M1 to A to M2.)

In either case, the population of interlinked minds (some incarnate, others perhaps not — angels, entities, gurus, demons, or whatnot) may be regarded as a giant neural network, the active intelligence network, or AIN. The collective intelligence of the AIN depends upon the strength or bandwidth of its links. In this model, the action of an idea, a placebo, a psychedelic, or a suggestion may be to adjust the strength of an individual's link in the AIN so as to tune in certain vibrations. The active intelligence is a master hub within the AIN, and may be the repository of all knowledge, as for example, the cure of diseases. The AI or master hub might hold a quantum holographic memory of the universe, as in David Bohm's *implicate order*.

Recall Jacob's ladder, from *Genesis*:

And Jacob went out from Beer-sheba, and went toward Haran. And he lighted upon the place, and tarried there all night, because the sun was set; and he took one of the stones of the place, and put it under his head, and lay down in that place to sleep. And he dreamed, and behold a ladder set up on the earth, and the top of it reached to heaven; and behold the angels of God ascending and descending on it.

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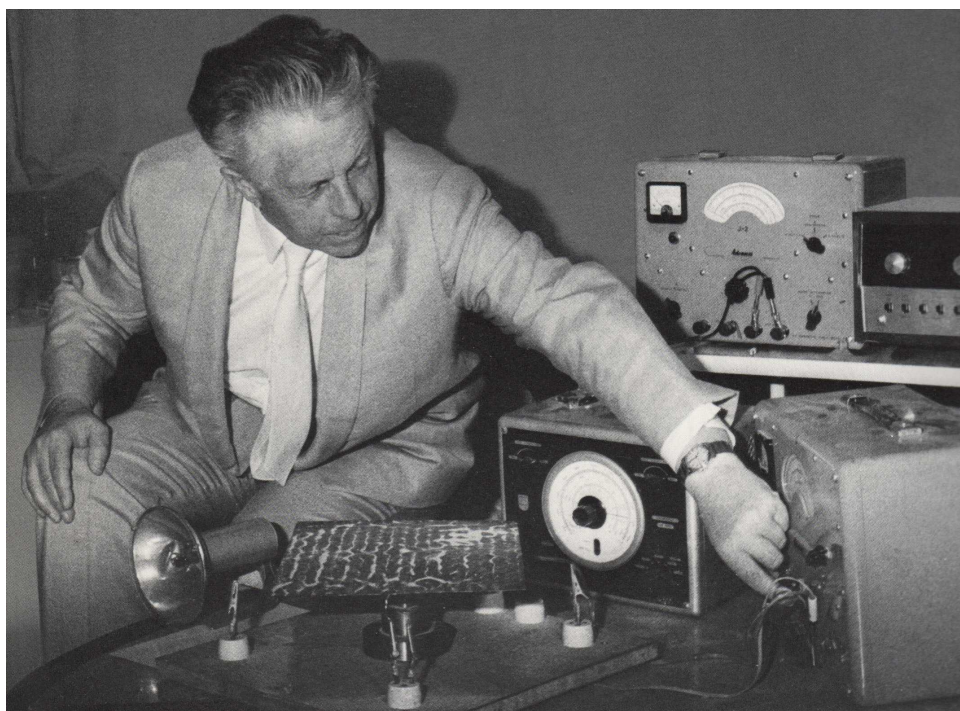


Figure 1: Dr. Hans Jenny in his lab in Dornach. (Jenny, 1972; frontis).

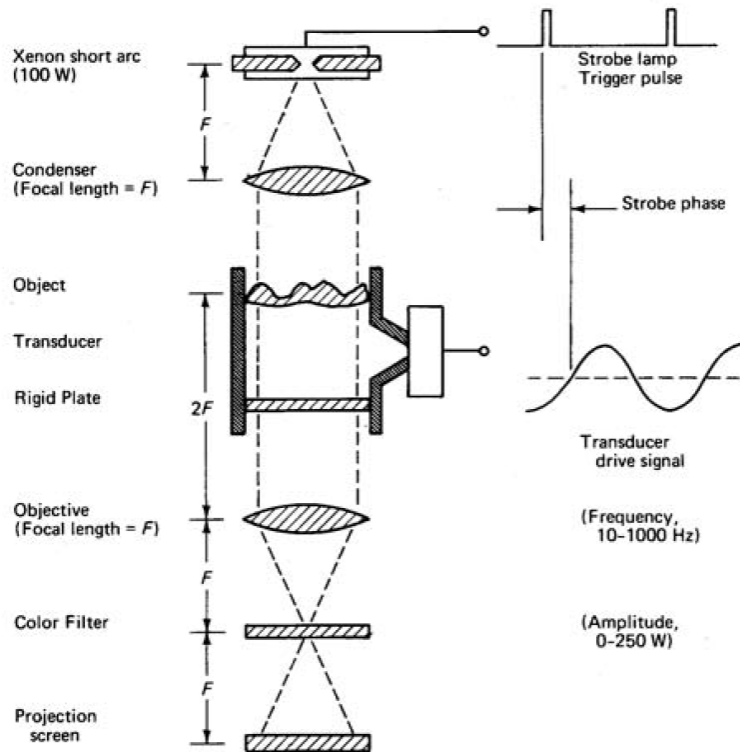


Figure 2: Schematic view of the four-inch Jenny microscope of the University of California, Santa Cruz (Abraham, 1974). The darker bold lines comprise a cross-section of the brass plumbing tee.

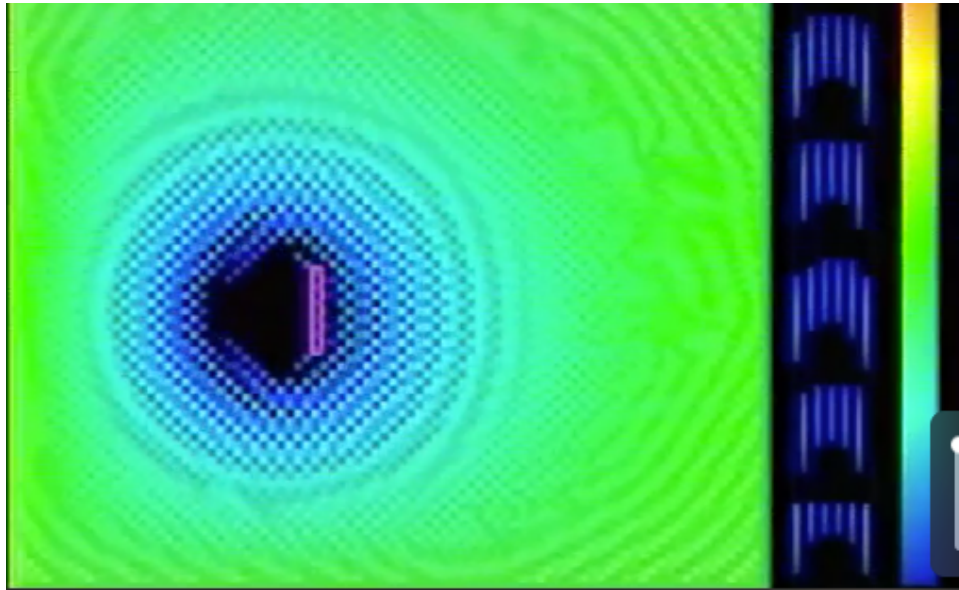


Figure 3: One frame from a computer simulation of the morphic field linking a dog and its owner. See (Sheldrake, 1999), (Abraham and Broadwell, 1997), and (Abraham, Broadwell, and Radunskaya, 1997). The colored vertical band at the right shows the color code for deformations of the field. The green area shows the outer portion of the fluid object, only slightly deformed. The black area contains the triangular receiver, including the violet recording retina.