Perspective

HOMEOPATHY AND ALLOPATHY AS DUAL EXPRESSIONS OF NATURE PART I: SOME SPECULATIVE INITIAL THOUGHTS

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ABSTRACT

Physics attempts to develop a relative framework of quantitative understanding which provides internal self-consistency between all the various observable phenomena of nature. Periodically, the new prevailing model of physics is unable to do this with regard to some new sets of observations so the physics model must be expanded in fundamental ways and we refer to this as a paradigm shift. Such a shift began a century ago with the, then, new concepts of discrete quantum packets of change and relativistic coupling of space and time into space-time. Over the years, abundant experimental data has been gathered to support the beneficial utilization of homeopathic remedies for humans, animals, in vitro enzymes, etc., but a framework for understanding such results has been sorely lacking. The purpose of this article is to provide the basis for such a framework.

KEYWORDS: Physics, concepts, vacuum, theoretical model, reciprocal space

INTRODUCTION

very special type of inverse relationship appears to exist between homeopathic medicine and allopathic medicine. Hahneman in the late 1700's, was the first to come upon the idea that a substance which can produce symptoms in a healthy person can cure them in a sick person. This German physician noted that, when he drank quinine, he experienced many of the symptoms of malaria although he knew that he did not have the illness. Further experiments with other compounds strengthened the above conclusion. This has since been called the "Law of Similars." He also discovered that, when the remedy is diluted with water and at the same time succussed between dilutions—the effect of the remedy is greatly increased. This dilution/enhancement effect can occur well past the point where, theoretically, no molecules of the original substance are still present in the solution (for potencies above 12c which means 12 dilution steps at a factor of 100 for each step), yet the solution is still observed to exert a significant therapeutic action on a living organism. Over the years, abundant experimental data has been gathered to support the beneficial utilization of homeopathic remedies for humans, animals, in vitro enzymes, etc., but a framework for understanding such results has been sorely lacking. The purpose of this article is to provide the basis for such a framework!

To proceed, it is important to reflect for a moment on what physics is able to do and what it is not able to do. Physics attempts to develop a relative framework of quantitative understanding which provides internal self-consistency between all the various observable phenomena of nature. It is unable to provide absolute truth! Periodically, the prevailing model of physics is unable to do this with regard to some new sets of observations so the physics model must be expanded in fundamental ways and we refer to this as a paradigm shift. Such paradigm shifts do not occur easily because the old mind-set of the establishment has great inertia to change for a variety of reasons. Such a shift began a century ago with the, then, new concepts of discrete quantum packets of change and relativistic coupling of space and time into space-time. These concepts violated basic assumptions in the prevailing perspectives of classical mechanics and they were strongly resisted. Today, these concepts are well accepted but it has taken a century of productive and fruitful work to make it so.

Today, the prevailing model of physics is unable to incorporate the observations of homeopathy into its internally self-consistent picture, so physicists must either deny the existence of these observations as being valid observations or they must expand their model of nature sufficiently to incorporate them into a larger view of nature. Unfortunately, and perhaps predictably, most of the establishment has chosen the former path. Here, in this article, we proceed along the latter path!

KEY CONCEPTS TO BUILD ON

1. Because homeopathic solution effectiveness continues to increase with dilutions beyond Avogadro's number (6 x 10²³ molecules per mole or 6 x 10²³ H²0 molecules per 18cc of water), we start by questioning "what is substance?' and "where does substance come from?" Dirac's relativistic quantum mechanical calculations of the 1920's indicated that particles of positive energy and positive mass formed from the vacuum and were thus experimental observables.² Antimatter particles were the "holes" of positive mass and energy left behind in this vacuum substratum that was considered to be a chaotic negative energy sea (and thus was not an experimental observable), of latent potential energy ~10⁹⁴ grams per cm³ of vacuum.

To understand what this enormous potential energy density means, compare it to the **total** mass of the known universe (out to ~ 20 billion light-year radius) which is ~5 x 10⁵⁷ grams. Thus, in one cubic angstrom of vacuum (about the volume of a single hydrogen atom), the latent potential in terms of mass is calculated to be ~ one trillion times larger than all the physical mass detected in the known universe. This suggests that there is much of Nature to be revealed by exploring the vacuum and understanding what it truly means. Thus, from Dirac, we begin to see the vacuum, not as empty space but as space containing something we have not yet learned to detect and this space can give birth to physical, observable matter. All those unidentified energies that we are presently calling "subtle energies" have their home in the vacuum and we would do well to relabel them as "vacuum energies" because some people confuse the word "subtle" with the word "weak." Since these vacuum energies consti-

tute many many orders of magnitude more latent energy than all the mass in the presently observable universe, they must be fully understood before we can even begin to talk about "a theory of everything."³

2. A second useful concept relevant to the physics of homeopathy is the creation/annihilation reactions for point defects (interstitial and vacancy species) in crystals. The simplest visualization of this process is to remove an atom from a lattice site, A_L and place it in an interstitial position, A_I, between other lattice sites. The vacancy, V_L, is just the empty lattice site (see Figure 1). Although it costs internal energy, ΔE, to form this pair of defects, the entropy gained, ΔS, outweighs this cost so the total free energy, ΔG, of the crystal is reduced up to a point (see Figure 2). Nature tries to drive this process until the system is at minimum free energy with the equilibrium point defect concentration, C*, having been created. This basic reaction is given by

$$A_{L} \rightleftharpoons A_{I} + V_{L}; \qquad \frac{[A_{I}] [V_{L}]}{[A_{I}]} = K (T,P)$$
 (1)

Here, from thermodynamics, $[A_L] = 1$ and K, the equilibrium constant, depends only on temperature, T, and pressure, P. Since other indepen-

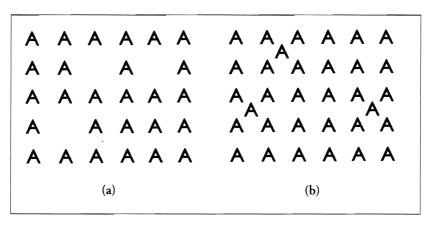


Figure 1. Types of primary point defects, (a) lattice vacancy, V_L , and (b) interstitial, AI.

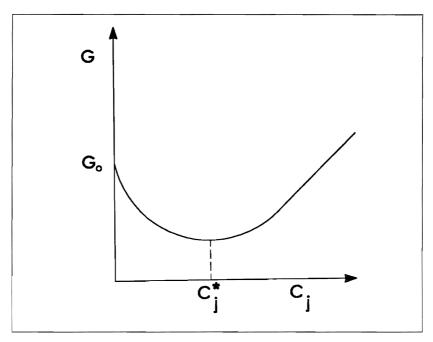


Figure 2. Schematic illustration of free energy, G, and its change from the state of perfect order, G_o , as concentration C_i of point defect, j, is formed in it.

dent reactions exist for A_I alone and for V_L alone, and since the activity, $[]$, can be approximated by the concentration, C, when the solution is dilute, Equation 1 yields the hyperbolic relationship

$$C_{\Lambda} \cdot C_{V} = CONSTANT$$
 (2)

Thus for appropriate conditions, we can have a very high concentration of A_I coupled with a very low concentration of V_L , and vice versa, to constitute equilibrium (see Figure 3). This same type of reaction can be utilized for the matter/antimatter example given earlier. We will also see later that there is justification for stating that this same type of relationship is expected to exist between a specific physical substance, D_j and its conjugate physical counterpart, R_j , so that when D_j is reduced in concentration by

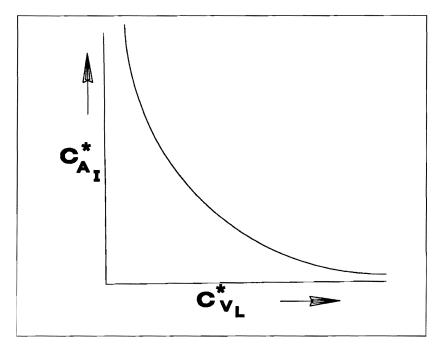


Figure 3. Hyperbolic equilibrium relationship between point defect species A_I and V_L in a crystal.

succussion and dilution, a thermodynamic driving force exists to increase the concentration R_i according to the equilibrium reaction equation

$$C_{Dj} \cdot C_{Rj} = CONSTANT$$
 (3)

Thus, dilution of $C_{\rm Dj}$ to values well below 1/Avogadro's number just cause $C_{\rm Rj}$ to increase accordingly—provided a kinetically viable mechanism exists for maintaining this equilibrium reaction.

3. In the 1920's de Broglie proposed that every physical particle has a "pilot wave" associated with it that guides the particle as it moves (see Figure 4).⁴ The envelope of the pilot wave moves at the same velocity as the particle; however, the moiety "writing" the primary waves that superpose to give this envelope must, from relativistic quantum mechanics, all travel

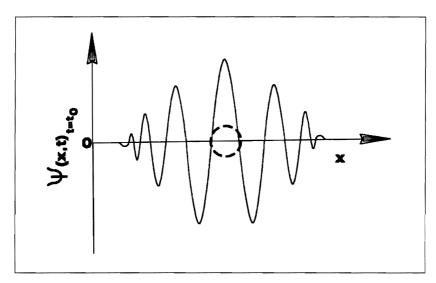


Figure 4. Schematic illustration of the wave function, ψ , for a group of de Broglie pilot waves that accompany a physical particle moving in the x-direction and located somewhere in the group

faster than the speed of light, c, so they have been termed information waves rather than matter waves. This Nobel Prize work was the fundamental lynch-pin in the concept "wave-particle duality" that is a cornerstone for the structure of Quantum Mechanics (QM). QM has been found to be extremely accurate in its quantitative calculations of physical phenomena. However, the mathematical formalism is so complex that very little light is shed on the fundamental processes involved. We will see later that, when one adopts a higher dimensional perspective from which to view Nature than just our familiar four-space of distance-time, one is able to independently monitor both the particulate and the wave aspects of nature.

4. During this decade it has been discovered that one can imprint water with a single electromagnetic frequency, the water can hold this imprint for a very long time and the frequency can be "read" out again months later. A great many different EM frequencies can be simultaneously stored in the water. Of special interest to us here is that the threshold EM signal

- amplitude needed for retention of the imprint by the water is reduced by a factor of ~1000 when the water is succussed during the EM imprinting step.⁶
- The last relevant concept needed for later construction of a model large enough to account for both conventional physics and homeopathy is the concept of symmetry in nature, particularly with respect to electric and magnetic substances. The current paradigm contains a picture of electric monopoles and magnetic dipoles as the constituents of physical substance with the dipoles being generated by the spin and orbital movement of the monopoles. Symmetry in nature would require that both electric monopoles and magnetic monopoles exist in nature, perhaps via some creation mechanism, like that utilized earlier for point defects, which connects them both to something even more primary in nature.⁷ Conventional science has looked long and hard, with all the wonderful physical tools available, for experimental evidence validating the presence of magnetic monopoles in our conventional four-space, distance-time. They have not found it! Most likely, this is because magnetic monopoles are not a constituent of our conventional four-space but they exist elsewhere and there is another explanation for the presence of magnetic dipoles in this four-space. We will see in the next section that magnetic monopoles can exist in an additional and separate four-space yet give rise to magnetic dipoles in the distance-time four space. In addition, they are proposed to be the moiety that "writes" the de Broglie pilot waves and, as well, be the stuff that materializes homeopathic effects.

A SIMPLIFIED VERSION OF THE NEW PARADIGM

This author's personal view is that we are all spirits having a physical domain experience as we ride the "river of physical life" together. Inside our experiencing vehicle, or biobodysuit, that we use for this journey is a portion of our spirit self and it drives the vehicle. The biobodysuits come in a variety of colors, two basic morphological forms (that we call genders) and they consist of four main layers. The outermost layer is constructed from electric monopole substance. The first inner layer is constructed from magnetic monopole

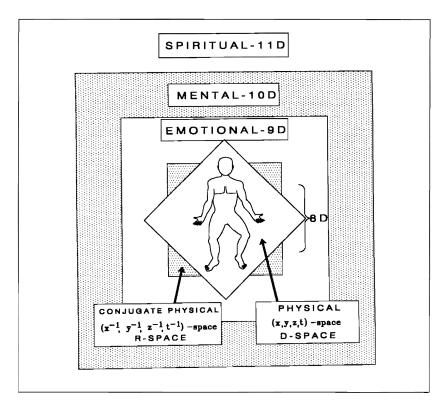


Figure 5. Visualization of dual four-space frames (physical or D-space and conjugate physical or R-space) imbedded in a nine-space (emotion frame) imbedded in a ten-space (mind frame) of the multidimensional biobodysuit. Embedding all this is the eleven-space domain of spirit.

substance, the second inner layer is composed of emotion domain substance and the third inner layer is composed of mind domain substance. These three inner layers are all proposed to be substructures of the vacuum. And, as more and more infrastructure is built into these four layers via the "muscle-building" or "neural learning" that always occurs as a part of active living, more of our spirit self is able to enter and stably connect to our vehicle. A schematic picture of these substances in our metaphorical vehicle is given in Figure 5 and, for our purposes here, let us focus primarily on the two outer layers of the biobody-suit.⁷

The outermost layer is constructed from electric monopole substance that functions in our four-dimensional cognitive frame of distance-time (x, y, z, t). The adjacent, inner layer is constructed from magnetic monopole substance which functions in a reciprocal four-space (x^{-1} , y^{-1} , z^{-1} , t^{-1}) of which most humans do not have conscious cognition. This reciprocal space is a frequency domain (1/distance = # per unit distance = a spatial frequency and 1/time = # per unit time, a temporal frequency) and has been called the etheric domain in occult literature as well as k-space in conventional solid state physics literature. I prefer to simplify things and just designate it as R-space with the notation (k_x , k_y , k_z , k_t) while our conventional space is called direct space or D-space with the notation (x, y, z, t). Thus in D-space, substance is of electric and particulate nature travelling at speeds slower than the velocity of light, c, and exhibiting both positive mass plus positive energy. In R-space, substance of magnetic and wave nature travels at speeds greater than c while exhibiting both negative energy and negative mass.^{7,8}

ince, from relativity theory, substance that travels slower than c cannot directly interact with substance that travels faster than c, I have proposed that a substance from the 9-dimensional domain of emotion, which I have labeled "deltrons," serves as the coupling agent between these two types of substance since it lies outside the constraints of relativity theory.

It is presumed that, under normal circumstances, a small but constant concentration of deltrons is activated everywhere so that a uniform but small interaction occurs between the magnetic substance of R-space and the electric substance of D-space. It is this coupling that is thought to allow electromagnetism to exist throughout the universe. I have further proposed that the application of human intention can activate an increased local deltron concentration and thereby increase this interdimensional coupling so as to produce a variety of seemingly anomalous psychoenergetic phenomena in D-space. An illustration of how this is thought to work is given by Figure 6.7 Here, a specific intention from the level of spirit (11-D) imprints a pattern on the nodal network of the mind domain (10-D) which, in turn, both diffracts from these nodal points to imprint a correlated pattern on the nodal network of R-space (4-D) and activates more deltrons from the emotion domain (9-D). This local increase in deltron content acts something like an increased "toner" level in a Xerox machine allowing another correlated imprint to be impressed on

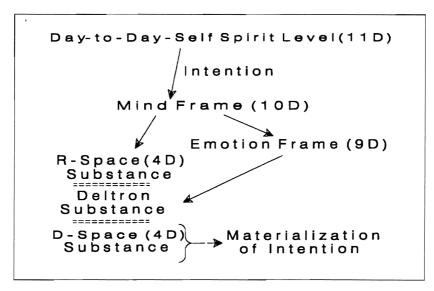


Figure 6. Illustration of one process path whereby intention projected from the domain of spirit produces ultimate action in the physical domain.

the nodal network of D-space. This latter acts on the built-in mechanisms of our biobodysuit's infrastructure to materialize the specific intention in D-space. A description of these various nodal networks is not necessary for our present purposes and it has been described elsewhere.⁷ For now, let me just say that they deal with an aspect of space not yet revealed by our present science.

he deltron coupling physics between D-space and R-space produces what I call the "mirror relationship" between these two domains. This is a very special and strange type of mirror with which we have had no prior experience. Perhaps it is best to illustrate the symmetry features via Table I which lists companion sets of characteristics for D-space and R-space substances. I think that the current mathematical formalism of Quantum Mechanics embraces this diversity of characteristics in non-obvious ways precipitating the mathematically real part as a physical observable. Thus, some kind of sampling of the R-space column in Table I appears as "flavors" sprinkled on the D-space fare. For example, I have proposed that the magnetic dipoles observed in D-space are really "images" of the R-space magnetic monopoles as observed from the D-space side of the mirror. An important message for the

Table I Aspects of the Mirror Principle

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Physical	Conjugate Physical
Direct space & Direct time left hemisphere sensing	Reciprocal space & Reciprocal time right hemisphere sensing
Nodal network grid spacing - 10 ⁻⁸ cm	Nodal network grid spacing - 10 ⁻¹⁵ cm
Polycrystalline HCP	Disordered HCP
Electric monopoles	Magnetic monopoles
Forms atoms, molecules, etc.	Forms atoms, molecules, etc.
Allopathic medicine	Homeopathic medicine
Positive mass	Negative mass
v < c	v > c
Positive energy states	Negative energy states
E _p increases as v increases	E _E increases as v increases
Positive entropy, S _p	Negative entropy, S _E
Positive free energy, $G_p = Hp - T_pS_p$	Negative free energy, $G_E = H_E - T_E S_E$
Positive temperature	Negative temperature
Electromagnetism	Magnetoelectrism
Gravitation	Levitation
Body sensory systems delineated	Body sensory system not delineated
Photons at velocity c	Photons at velocity c'>>c(-10 ¹⁰ c)
Fastest in vacuum	Slowest in vacuum
Slows down in dense material	Speeds up in dense physical matter
Faraday cage screening	Screening by magnetic cage

reader to carry away from their reflections on Table I is the vast new technological and medical opportunities awaiting humanity as we unfold the detailed specifics of the R-space/deltron/D-space model. The very recent cosmological findings that empty space is somehow exerting a repulsive force to accelerate the expanding universe may someday be explained by the levitational force of R-space substance.

Te are currently in the process of developing an experimental technique whereby a region of D-space (laboratory table size) can become strongly coupled to R-space for an extended period of time (months so far). In such a locale, one is able to obtain experimental results that are categorically impossible based upon the present single 4-space (D-space) description of nature. As a simple illustrative example, today's physics says that one should see no DC magnetic field *polarity* effects on any physical process because the calculated magnetic force is proportional to the gradient of the square of the magnetic field (∇H^2) so any H-field polarity effects should disappear. Thus, conducting a DC magnetic field polarity experiment on the pH of pure water in a normal, unconditioned locale, where weak coupling obtains, indeed yields $\Delta pH_S^N = pH(S) - pH(N) = 0$, where S and N refer to the south pole, and north pole, respectively, being adjacent to the vessel of water. However, conducting the identical experiment in a conditioned locale, where strong coupling obtains, yields ΔpH_S^N 0.1 to 1.0 pH units with a measurement accuracy of ± 0.01 pH units. This preview is introduced here solely to give the reader some idea of what coupling between R-space substances and D-space substances can mean.

The final aspect of this model that I wish to draw to the reader's attention is, since the primary information transferring mechanism from the highest dimensional domain (11-D) to the lowest dimensional domain (4-D) is a wave diffraction mechanism, the conjugate quality in R-space for a specific quality in D-space (like density, charge, potential, temperature, concentration, etc.), is given by the **Fourier Transform** of that specific D-space quality. This constitutes an integration operation, over all of D-space, of the spatial and/or temporal distribution of that quality modulated by a particular mathematical phase factor. This is standard mathematical "stuff" which is out of place to formalize here. Instead, let us consider a simple example using the quality of object shape (or mass density distribution in a continuum approximation) in

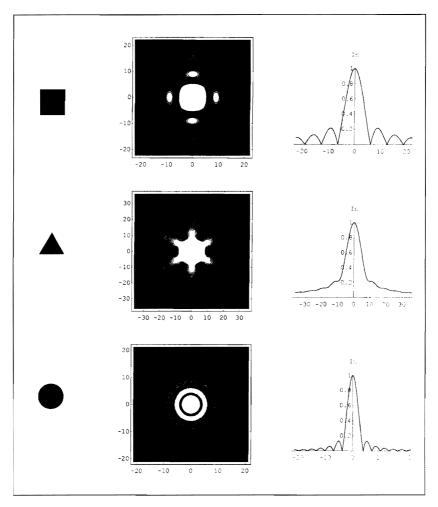


Figure 7. Comparison plot of normalized R-space modulus, In, versus wavenumber for the three two-dimensional D-space objects in the left column (square, triangle and circle). The middle column gives the calculated R-space maps in (k_x, k_y) -space while the right column gives the $k_x = 0$ cross-sections.

D-space with its counterpart pattern of wave modulus in R-space. This calculated result is given in Figure 7 for triangle, square and circle sheets (two-dimensional shapes).⁷

The magnitude of the R-space modulus scales linearly with the size of the D-space shape while changes in both position and orientation of the D-space object changes the details of the modulus-map in R-space. In a weakly-coupled locale, the consequences of such shape effects upon experimental data are largely seen in the width of the "scatter band" and are generally ignored. However, in a strongly-coupled locale, such object shape effects will have meaningful consequences on the experimental data. We are currently investigating some of these effects.

APPLICATION TO HOMEOPATHY

From the foregoing, the following can be proposed.

- the home territory of homeopathy is R-space so that homeopathic substance deals primarily with the wave and information aspects of Nature,
- (2) thermodynamic equilibrium between the D-space and R-space counterparts of a specific physical substance j, is given by Equation 3 so that, as C_{Dj} decreases, a thermodynamic driving force exists to increase C_{Rj},
- (3) the quantitative connection between C_{Dj} and C_{Rj} is given by the Fourier Transform relationship taking into account the deltron coupling between domains, and
- (4) both intention and succussion impact the effective activation of deltrons as this inter-domain coupling agent.⁷

Certainly, from (2) above, there is no inherent philosophical difficulty in having the D-space j decrease in concentration below 1/Avogadro's number while C_{Rj} continues to increase because the domain of C_{Rj} is non-spatial and non-temporal (it is a frequency domain). The obvious fact that the distance between any two members of the j-species in D-space may be very large compared to the range of their intermolecular forces in D-space does not preclude their interaction via R-space; i.e., the R-space component of one molecule interacts

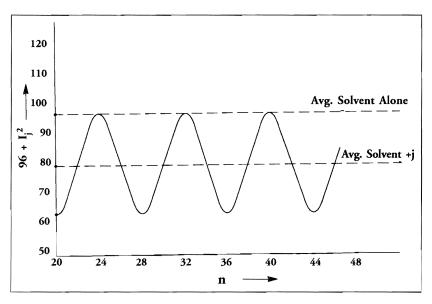


Figure 8. Calculated plot of the D-space reaction effect in a solvent for the R-space species, j, with modulus, Ij, for decimal dilutions between n=20 ($C_{Dj}=10^{-20}c(0)$) and n=48 ($C_{Dj}=10^{-48}c(0)$) for an overly simplified case but fitted to the data of Figure 9.

with the R-space component of the other molecule. In fact, the Fourier Transform for a molecule located at position, r, in D-space is, except for a phase factor, identical to that for the same molecule displaced to the location $r + \Delta r$ even when Δr is hundreds or thousands of miles (the phase factor depends on Δr). This effect is seen in current expressions of Quantum Mechanics as "non-local forces." Utilizing the R-space/D-space mathematical connection, one is able to calculate the relative change in magnitude of these non-local forces anywhere in D-space.⁹

Perhaps even more compelling is that, when this author considers the step-by-step change of C_{Dj} via the normal homeopathic practice of succussion and dilution and allows a constant deltron activation factor of β in all the water succussed during the process, C_{Rj} is calculated to be given by an oscillating function with respect to dilution of the type shown in Figure 8. This remarkable type of result requires that β is negligibly larger than this dilution factor and it is predicted using the model of the previous section even for D-space

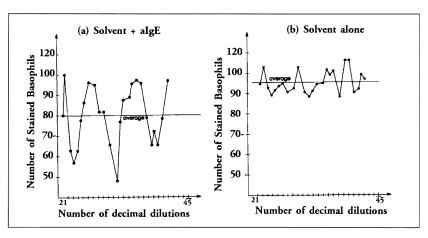


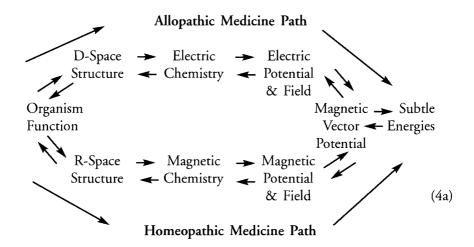
Figure 9. Experimental plot of basophile cell staining at extremely high dilutions of algE as a function of the number of decimal dilutions, n.

dilution factors of 20-40 decades. Of course, the details in Figure 8 will change as β changes and particularly if we allow β to be different for each succussion/dilution step; i.e., β_1 , β_2 , β_3 , . . . However, the important point to be made here is that we now have a theoretical model capable of predicting this type of behavior without sacrificing any of science's previous predicting power.

Recently, what has come to be called "the Benveniste Affair" was based upon the initial publication of a curve like Figure 8 in the journal *Nature*.¹⁰ In that case, the ordinate related to basophile cell staining experiments (see Figure 9). This data so disturbed the fixed mind-sets of *Nature's* editor and a great many other scientists that a deplorable period of very inhuman behavior ensued. Perhaps now, with the calculated result of Figure 8 which is the first harmonic of Figure 9 (that any competent individual can reproduce), we can all return to the interesting topic of homeopathy with more open minds.

Although a very great deal remains to be proven experimentally concerning the model of the previous section, we have made a start and it holds great promise for rationalizing and, hopefully, quantitatively predicting many of the experimental details uncovered by past and future psychoenergetic experiments. Let us close this article with a perspective" equation relating to how this author sees the two complementary branches of medicine—allopathy and homeopathy.

It is the Equation 3 quantitative balance that is thought to be needed for robust health while the dual process path is given by



and the additional subtle energies, which are vacuum energies, are

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REFERENCES & NOTES

- 1. G. Vithoulkas, The Science of Homeopathy (Grove Press, New York, NY, 1980).
- 2. I. R. J. Aitchison & A. J. G. Hey, Gauge Theories of Particle Physics (Adam Hilger Ltd., Bristol, UK, 1982), p. 11.
- William A. Tiller, What Are Subtle Energies?, Journal of Scientific Exploration 7 (1993), pp. 293.

- 4. David Bohm, Quantum Theory (Prentice-Hall, Princeton, NJ, 1951).
- 5. Cyril W. Smith & S. Best, Electromagnetic Man: Health and Hazards in The Electrical Environment (St. Martin's Press, New York, NY, 1989).
- Cyril W. Smith, Electromagnetic Bioinformation and Water, in *Ultra High Dilutions* —*Physiology and Physics* (Endler and Schulte, Eds., Kluwer Academic Publishing, New York, NY, 1994).
- 7. William A. Tiller, Science and Transformation: Subtle Energies Intentionality and Consciousness (Pavior Publishing, Walnut Creek, CA, 1997).
- 8. William A. Tiller, Towards a Predictive Model of Subtle Domain Connections to the Physical Domain Aspect of Reality: the Origins of Wave-Particle Duality, Electric-Magnetic Monopoles and the Mirror Principle, *Journal of Scientific Exploration* 13 (1999), p. 41.
- 9. William A. Tiller, Towards a Predictive Model of Subtle Domain Connections to the Physical Domain Aspect of Reality; Some Applications of Direct-Space/Reciprocal Space Logic. Unpublished manuscript.
- 10. M. Schiff, The Memory of Water (Thorsons/Harper-Collins, San Francisco, CA, 1994).

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