Quantum Entangled Subtle Energy and its Objective Reduction:
An Introduction to Emergent Process Physics and a Multivariate MAP

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Discoveries in science and mathematics are revolutionizing our world view. A hidden quantum reality and a fractal order underlie seemingly chaotic events. Chance and unpredictability characterize the chaos behind all order in the subatomic world, yet quantum superposition allows the states of quantum systems to embody *"quantum information"* encoding of entangled quantum 'super-correlations' much stronger than classical correlations of structural form and random processes. Quantum superposition and entanglement swapping introduce chance and serendipity in our lives, which can spontaneously create higher-order intelligence out of chaos. Emerging from this creative intelligence are new discoveries in science and mathematics that demonstrate the quantum superposition and strong entanglement of Science and Spirituality within our lives.

This paper describes subtle energies within the world in a manner akin to objects within the quantum field. Quantum mechanics has demonstrated how the *process of observing* spacetime objects sometimes entangles both the objects and the instruments used.

Subtle energy has a quantum expression involving superposition and information/identity entanglement in the same fundamental way as do all quantum objects. Under appropriate conditions, subtle energy also undergoes objective reduction in spacetime, providing the measurable effects needed for validation in energy medicine and related scientific fields. It then naturally follows that in situations where subtle energy is observed, it will also characteristically entangle the instruments used for observation and the observer as well.

How can this be a fundamental description of the physical world? To answer this question

the observer needs to be included as a *fundamental instrument* of perception.

Note how the focus shifts from object to subject. It shifts from a desire to know or understand an objective external world – the need for a theory of everything – to a focus on the actions and reactions of a living being (the observer), the actions and reactions of the forces of nature due to quantum entanglement (the environment), and on how information/identity entangle subtle energy (the quantum state representative).

Nature of Study

To partially instrument this focus we first create an explanatory model whose objective reduction includes variables that identify and instrument the superposition and entanglement of subtle energy. Here, the driving force is *the observer*; properly equipped with instruments that can identify systems that seem to entangle the perceived objects and instrumentation, and that can map the *movement* and *characteristic identity* of emergent processes into energies and objects within spacetime.

We then link the instrumentation directly to the observer, computing models of dynamic information hidden in the structure of Multichannel Adaptive Processes (MAP) using multi-variate least-squares statistical estimation – transforming the miraculous into science.

To implement this shift in focus, recall Descartes argument that *'an observer'* exists:

> In 1637 the French philosopher René Descartes provided science and mathematics with it's first self-evident proposition; *Cogito, ergo sum* – "I think, therefore I am."

Next, change the focus from *thinking* to *being*, extending the philosophical statement as follows:

> Whenever *'I am'* being objective (identifying with the mind that constrains reality to objective spacetime events),
> or *'I am'* an objective being (identifying with an objective body that limits perception to holographic spacetime events),
> objective reduction (of my subjective states to an imagined/perceived holographic projection) is a *certainty*.

We take this coupling of objective self-identity with the certainty of objective reduction to be self-evident. Like Descartes proposition, we use it as a foundational element for the conceptual and mathematical translation (reduction) of subtle energies and latent possibilities to an objective reduced-form reality.

Now, consider subtle energy in an object that is simultaneously in two or more *latent states* (understood as separations or bubbles in the fabric of personal reality – variously imagined to be hierarchical systems, parallel realities or multiple worlds). We define these latent states to be the objective representation of an object that is in *superposition*. In quantum mechanics this is the fundamental condition of electromagnetic waves prior to the emergence of material particles within the fabric of objective reality.

> Because it deals with probabilities and uncertainties, quantum theory has been spectacularly successful in explaining otherwise inaccessible atomic phenomena and in thus far meeting every experimental test. Its predictions are the most precise and the best checked of any in physics; some of them have been tested and found accurate to better than one part per billion.
> *—from the Encyclopedia Britannica*

For an objective superposition, a necessary condition is that enough coherence be present to identify at least two latent states. By studying particle physics, Penrose has concluded that when an object's quantum coherence has reached an *objective threshold*, its quantum superposition spontaneously 'collapses' to a single objective state.

An equally plausible description, however, is that the superposition of a *subtle energy object* simply loses its identity as a wave function when it reaches an objective threshold. The object is still in superposition and continuously couples the degree of identity of all latent states with a normalized *a priori* certainty of their objective reduction. Which is to say, any latent states of the subtle energy object whose identity fails to meet threshold continue in subtle energy superposition, while the normalized information contained in each latent state that meets threshold continuously branches into its own *processing channel* for objective-reduction to a fully-identified reduced-form object or *subtle energy form* in a subjective moment of time within a holographic spacetime reality. The basic plausibility of these possibilities is illustrated in particle physics by the two-slit experiment, where particles fired at two slits are initially observed as interfering waves at the target.

Wave-particle duality provides a single unified theoretical framework for understanding that all matter behaves in both a wave-like and a particle-like fashion. Quantum mechanics holds that every particle in nature, be it a photon, electron or an atom such as rubidium, is described by a solution to a differential equation. These solutions are known as *wave functions*, as they can diffract and interfere, leading to wave-like phenomena. These same wave functions can also be connected with the probability of finding a single particle at a given point in space.

In the two-slit experiment, each particle can be observed at the target as having two latent states, whose quantum superposition produces a characteristic interference pattern. However, *if one is looking for a particle* only one will be found at the target, with a probability density given by the square of the magnitude of the wave function.[1]

The actual motion of particles in the two-slit experiment has been effectively measured without interfering with them. What is revealed is that the *process of observing the particles* causes the interference pattern to disappear, even though the measurement process does not transmit enough energy to the particles to change their momentum.

This, and many other compounding results from the two-slit experiment, reduces to the postulate:

Entanglement of information **across latent states, when properly conditioned by the instrumentation of the observer, provides a theoretical basis for** *identification* **of latent states in objective reduced-forms.**
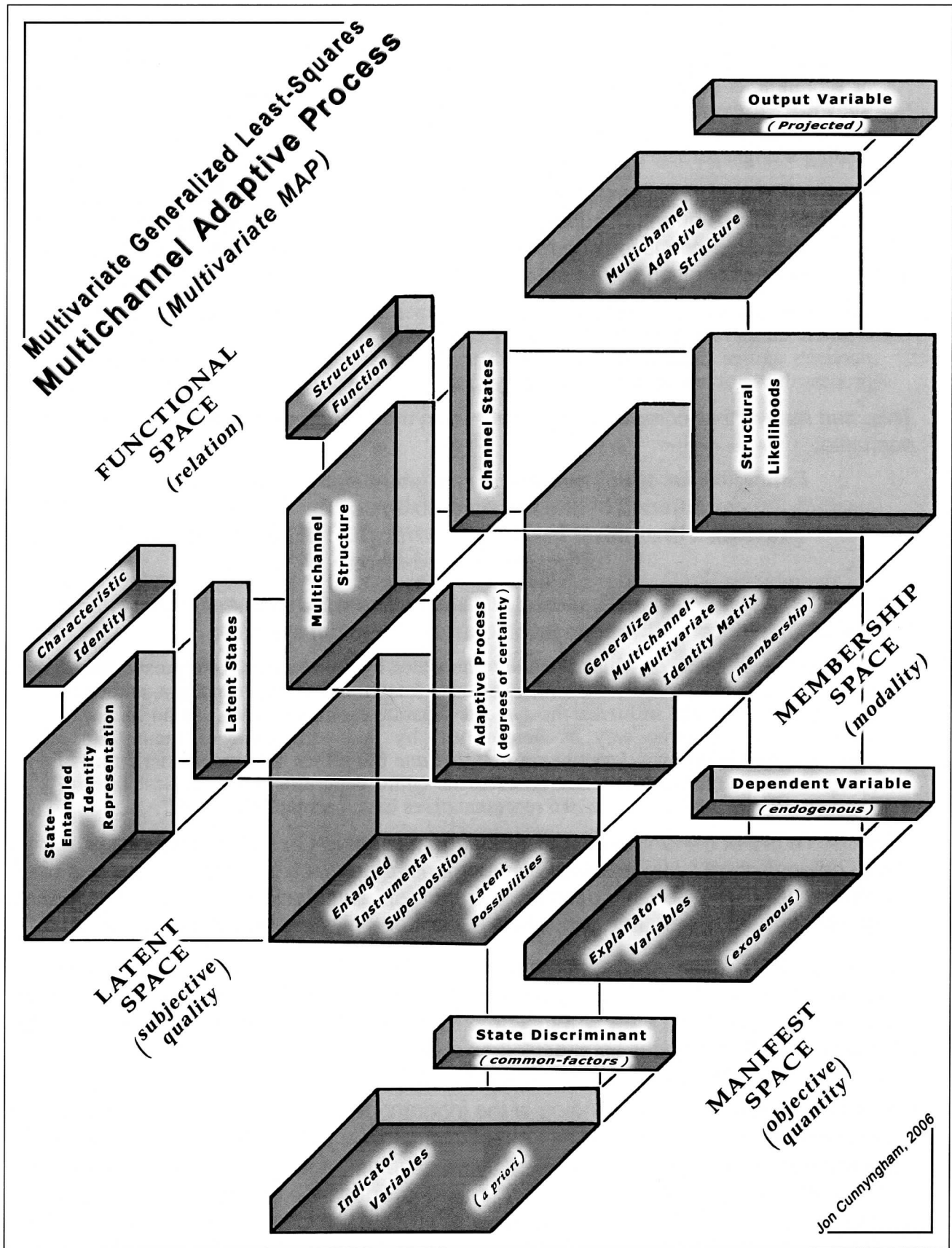
The term 'entanglement' was first used in 1935 by Erwin Schrödinger (Nobel Prize in Physics 1933) to describe the connection between quantum systems:

"When two systems, of which we know the states by their respective representatives, enter into temporary physical interaction due to known forces between them, and when after a time of mutual influence the systems separate again, then they can no longer be described in the same way as before, viz. by endowing each of them with a representative of its own. I would not call that *one* but rather *the* characteristic trait of quantum mechanics, the one that enforces its entire departure from classical lines of thought. By the interaction the two representatives have become entangled."

Physicist Yu Shi at the University of Cambridge has said, "Loss of interference is always due to entanglement." His research also demonstrates that when all the equations of quantum theory are taken into account, the apparent explanation of the two-slit experiment by the Heisenberg uncertainty principle is supported only by a numerical coincidence.

Perhaps a different question needs to be asked. Rather than continuing to repeat the question, "What is the *observed behavior* of particles in quantum mechanics?" – can we simply ask the question, "How can this be?" How does "*the* characteristic trait of quantum mechanics", as Schrödinger emphasized so clearly seventy years ago, entangle information within the subtle energy of an object?

Central to any deeper understanding of the inherent nature of *information entanglement in objective reduction,* are the *a priori* questions: "How is the characteristic *identity* of subtle energy in an object, as perceived by an observer, entangled within the objective instruments being used for observation?" and, "How does the entangled characteristic representation of identity in an object, allow or prevent the expression and manipulation of *classical information* within an objective (identified) reduced-form framework?"

Multivariate Generalized Least-Squares
Multichannel Adaptive Process
(Multivariate MAP)

FUNCTIONAL SPACE *(relation)*

MEMBERSHIP SPACE *(modality)*

LATENT SPACE *(subjective quality)*

MANIFEST SPACE *(objective quantity)*

Output Variable *(Projected)*

Multichannel Adaptive Structure

Structure Function

Channel States

Structural Likelihoods

Characteristic Identity

Multichannel Structure

Latent States

Adaptive Process *(degrees of certainty)*

Generalized Multichannel-Multivariate Identity Matrix *(membership)*

State-Entangled Identity Representation

Entangled Instrumental Superposition Latent Possibilities

Dependent Variable *(endogenous)*

Explanatory Variables *(exogenous)*

State Discriminant *(common-factors)*

Indicator Variables *(a priori)*

Jon Cunnyngham, 2006

The Problem

The scientific and professional appreciation of the presence of subtle energies within the world requires that both conceptual models and objective methodologies be available for creating a mathematical and empirical basis for what many scientists might otherwise describe as *"The Science of the Miraculous"*.

Perhaps you have noticed how quantum physics does not constrain its far reaching conceptual models to observable objective events. We have pursued the entangled path that Schrödinger identified in 1935 only a little way, but to us it appears to lead far up the mountain. To proceed further, objective methodologies are needed that can reach well beyond the scope and grasp of quantum physics. Objective evidence of subtle energy is needed from energy medicine and its related fields, the social and behavioral sciences – indeed, from all fields of human endeavor – to unify science with spirituality and the more liberal arts.

Assuming that subtle energy does exist in the quantum field, it seems reasonable to hypothesize that like all objects in the quantum field, subtle energy has an objective reduction and a quantum expression involving superposition and information/identity entanglement. The scientific problem is how to create an explanatory model whose objective reduction includes variables that can identify and instrument superposition and entanglement within latent subtle energy structures.

Statistical Methodology

Multivariate MAP is a least-squares statistical estimation package that hierarchically models dynamic information hidden in the structural form. It is like having a radio able to extract sound and digital data from a spread-spectrum radio frequency signal encrypting both amplitude modulated and frequency modulated information on multiple carriers and sidebands. The search for subtle energy needs a similar instrument for multivariate data. It needs a statistical methodology that is *designed* to identify objective thresholds of discrete states and decode their information: a methodology that uses classical multivariate statistical methods to estimate the multichannel adaptive structure of a model, correlate indicators of possible latent states, discriminate objective thresholds of these superpositioned states and quantify the representative identity of their characteristic latent state entanglement.

This is accomplished in the statistical package described below by mapping the multivariate structure into an orthogonal set of *emergent processes* that consistently reach a specific objective threshold with high statistical significance. The package uses classical GLS methodology to identify and estimate the structure of multiple adaptive processes, and a multichannel processor to model and characterize these processes as a dynamic series of space-time events.

Working within the objective framework of statistically identified reduced-form models, we estimate multivariate adaptive processes that have been objectively reduced to a class of *equivariant emergent processes*. Each member of the class represents an independent process with statistically significant coefficients. The statistical package assigns each emergent process an information channel and a state. This task is accomplished using an integrated form of generalized least-squares estimation and multivariate factor analysis to create coherent dynamic structures of superpositioned states. The resulting

simultaneous equation model provides an empirical basis for the scientific study of events that might otherwise be described as "events that miraculously entangle one another".

The Multichannel Adaptive Process model (Multivariate MAP) can be written as

$$y_j = X_j \beta_j + \varepsilon_j \tag{1}$$

where ε_j is a subset of the residual vector ε, and

$$\mathsf{E}(\varepsilon \,|\, X)_j = 0 \tag{2}$$

$$\mathsf{V}(\varepsilon \,|\, X)_j = \sigma_j^2 \mathbf{I}_j$$

where $j=1,...,m$ is the index set of m distinct structural states, and the n unit column vectors of $\mathbf{I}$ have been partitioned into submatrices $\mathbf{I}_j$ containing n_j unit column vectors,

$$\mathbf{I} = [\mathbf{I}_1 ... \mathbf{I}_j ... \mathbf{I}_m],$$

such that $\displaystyle\sum_{j=1}^{m} n_j = n$:

$$
\begin{aligned}
\mathbf{I}_1 &= [\mathbf{i}(1,1) \;...\; \mathbf{i}(1,n_1)] \\
\mathbf{I}_2 &= [\mathbf{i}(2,1) \;...\; \mathbf{i}(2,n_2)] \\
&\;\;\vdots \qquad\quad \vdots \\
\mathbf{I}_j &= [\mathbf{i}(j,1) \;...\; \mathbf{i}(j,n_j)] \\
&\;\;\vdots \qquad\quad \vdots \\
\mathbf{I}_m &= [\mathbf{i}(m,1) \;...\; \mathbf{i}(m,n_m)]
\end{aligned}
\tag{3}
$$

When expressed in terms of the family of *channel states*, the multichannel adaptive process has the synthetic form

$$\mathbf{I}_j' y = \mathbf{I}_j' X \beta w_j' + \mathbf{I}_j' \varepsilon \qquad \text{for} \quad j=1,2,..,m \tag{4}$$

which, in terms of the observed multivariate sequence, is

$$y(i) = X(i) \beta w(i)' + \varepsilon(i) \qquad \text{for} \quad i=1,2,..,n \tag{5}$$

By expanding $\beta w(i)'$ into a partitioned structural form, we obtain the equation

$$y(i) = X(i)[\beta_1 w_1(i) + \beta_2 w_2(i) + ... + \beta_J w_J(i)] + \varepsilon(i) \qquad \text{for} \quad i=1,2,..,n \tag{6}$$

We can use the multichannel adaptive process in this form for single-equation estimation, where the best linear unbiased estimator for β_S, $s=1,2,..,J$ is the generalized least-squares (GLS) estimator

$$\beta_S = (X' \mathbf{V}_S^{-1} X)^{-1} X' \mathbf{V}_S^{-1} y \tag{7}$$

where $\mathbf{V}_S^{-1} = \mathbf{P}_S^{-1} \mathbf{P}_S$, and $\mathbf{P}_S$ is the $n \times n$ matrix

$$
\mathbf{P}_S =
\begin{bmatrix}
w_S(1) & 0 & \cdots & 0 \\
0 & w_S(2) & \cdots & 0 \\
\vdots & \vdots & \ddots & \vdots \\
\vdots & \vdots & \ddots & \vdots \\
0 & 0 & \cdots & w_S(n)
\end{bmatrix}
\tag{8}
$$

From this perspective it is clear that the key to multichannel adaptive process estimation lies in knowledge of $\mathbf{P}_S$, and that a primary problem in estimating β_S from $[yX]$ occurs when $\mathbf{P}_S$ is not observed but must be inferred. To make this inference we invoke the global requirement for explanatory models that the components of the structural system maintain substantial consistency. This requires that we rewrite the multichannel adaptive process model in terms of its estimated residual errors:

$$\varepsilon(i) \;=\; y(i) \;-\; X(i)[\beta_1 w_1(i) + \beta_2 w_2(i) + \ldots + \beta_J w_J(i)] \quad \text{for} \quad i = 1, 2, \ldots, n \tag{9}$$

where the residual vector ε_j assumes the residual errors $\varepsilon(i)$ represent observations from a *multi-state* population (since that is what we hypothesized), rather than using the assumption that the estimated residuals are from an imagined "true" population of independent stationary stochastic errors (the classical 'random variable' assumption).

The GLS estimator of the index set of *m* distinct structural states computes an analytic operator that is similar to the objective threshold of coherence; the significance of a multi-variate structure is estimated by computing its '*goodness of fit*' (*coherence*), a ratio of the sum of squares of explained variation (SSR) to the total sum of squares variation (SST):

$$R^2 \;=\; \text{SSR}/\text{SST} \tag{10}$$

Each structural channel of the adaptive process model is constructed as a objective state that has reached an *a priori objective threshold of precision* as defined by its level of statistical significance. The '*precision requirement*' of the GLS estimator establishes a uniform threshold of objective reduction across all members of the index set of *m* distinct structural states, and factor analysis establishes the index set as an *orthogonal latent structure* using normal varimax rotation. The *degree of membership* of each ortho-normal adaptive processing channel in the Identity Matrix is then coupled with the *a priori latent possibility* of objective reduction to establish the linearly independent vector space basis of the multivariate multichannel adaptive process model shown in equation (9).

The notion of 'precision' occurs in several different meanings in the scientific literature. It may refer to a lack of knowledge of a quantity by an observer, or to the experimental inaccuracy with which a quantity is measured, or to some ambiguity in the definition of a quantity, or to a statistical spread in an ensemble of similarly estimated structures. Because of this, residual errors of the least-squares estimates of multichannel adaptive processes can only be determined with a characteristic 'uncertainty' $(1-R^2)$ that cannot become arbitrarily small across all independent conjugate variables simultaneously. The magnitude of R^2 in classical correlation and regression analysis represents the maximum attainable precision requirement in the classical context that can produce global stability.

Alternatively, we can allow the required precision of the construction to be a pre-assigned design parameter, imposed by the investigator as a criterion of estimation within the maintained structural hypotheses. Specification of the precision parameter $p*$ in this manner provides the information needed to compute the maximum allowable residual sum of squares SSE_p for each invariant ensemble s_p of the structural model in the interval $i = 1, \ldots, n$:

$$p*^2 \;=\; \text{SSR}_p/\text{SST}_p$$

$$\text{SSE}_p \;=\; \text{SST}_p - \text{SSR}_p \tag{11}$$

$$= [1 - \rho*^2]\mathrm{SST}_p$$

This result provides, in turn, a definition of the maximum allowable residual variance,

$$\sigma_p^2 \;=\; [1 - \rho*^2]\mathrm{SST}_p\big/(n_p - k) \qquad\qquad (12)$$

Precision and the Uncertainty Principle

It is not by accident that, for many years, the most distinctive feature of quantum theory was the Heisenberg *'Uncertainty Principle'*, which describes an uncertainty relation for predicting the transition quantities of position and momentum in quantum mechanics; and that the most distinctive feature of Multivariate MAP is the *'precision requirement'*, which
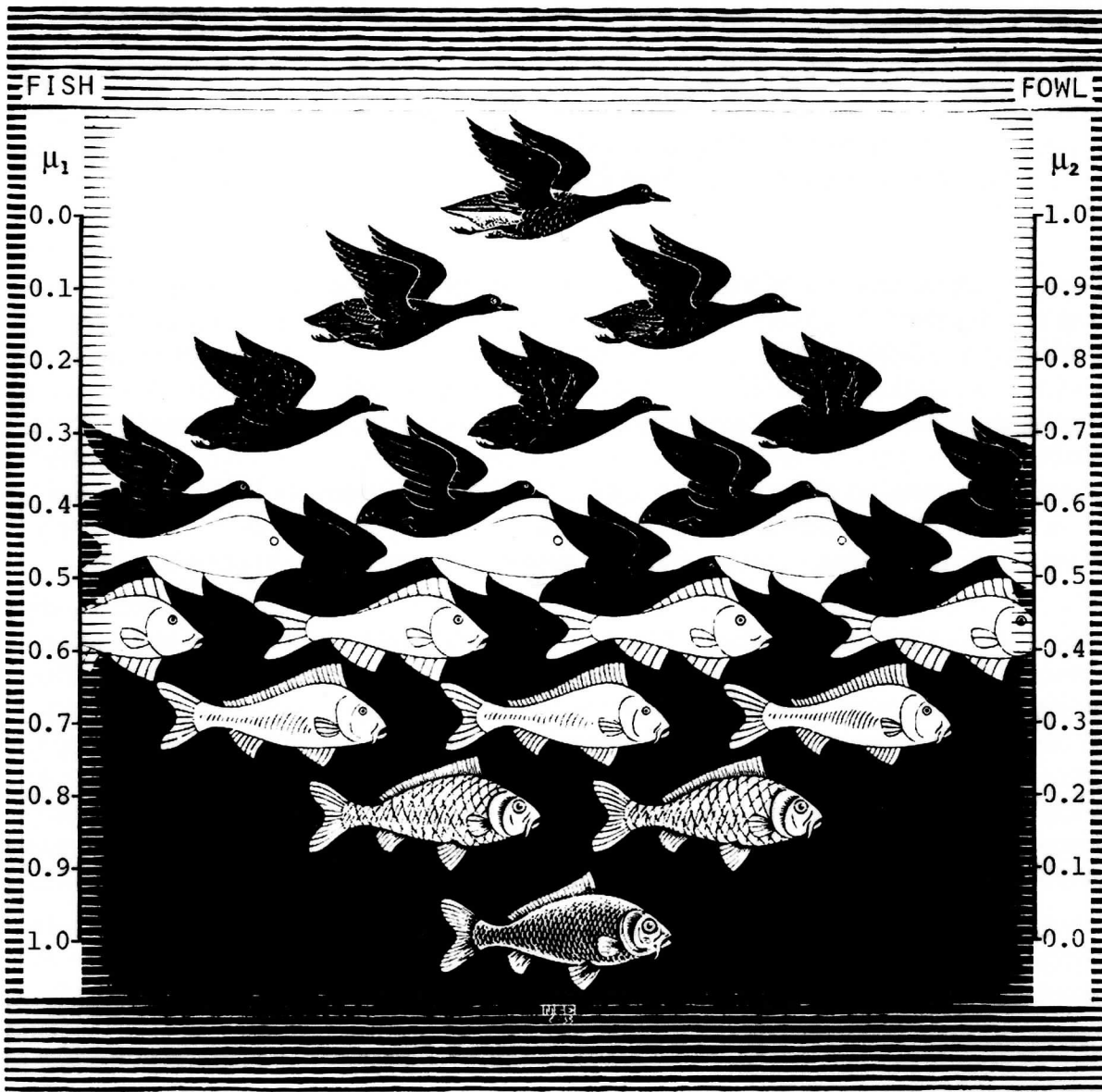
ESCHER 1. Scaling Perceptions of Fish or Fowl.

describes a coherence relation for predicting the *objective threshold* of GLS structural estimation of latent states of multichannel adaptive processes, functionally akin to the objective reduction of superpositioned quantum objects.

An essential difference between the *uncertainty principle* and the *precision requirement*, however, is Einstein's distinction between 'constructive theories' and 'principle theories'. In this famous classification (1919), Einstein proposed that constructive theories – like the uncertainty relation – are theories which postulate the existence of simple entities behind phenomena, and then reconstruct the phenomena by framing hypotheses about these entities. This constructive approach of the uncertainty relation, and the operationalist viewpoint of the Copenhagen interpretation, has long since lost its scientific appeal among philosophers of physics.

On the other hand, principle theories – like special relativity and the coherence relation – start from empirical principles, *i.e.,* general statements of empirical regularities, employing a bare minimum of theoretical terms. The idea is to build up the theory from such principles, showing how these empirical principles provide conditions for the introduction of further theoretical concepts. The concept of the measurement of points to a defined precision and the characteristic coherency required for objectively defined ensembles, are examples of such empirical principles; they *precede* any analytic theory of probability or the mathematical construction of error models.

The *precision requirement* of Multivariate MAP is the design parameter that imposes on the GLS estimator certain qualifying conditions established by the empirical principles of precision and coherency. These conditions enforce the coherency of ensembles and identify the characteristics of instances that define latent states.

The membership function that identifies each specific ensemble (see **ESCHER 1**) is derived from the information filter used to describe its common characteristics. The *membership function* $\mu(x_1,...,x_n)$ measures the *certainty* $C(S_p)$ that each instance of an observed event embodies all the relevant characteristic information $\Phi_p(c_1,...,c_n)$. It is the membership function of the conjoined hypothesis of constructibility $H(K)$ and the hypothesis of choice $H(I)$, representing the certainty of membership in a specific ensemble, which forces the parameter estimator

$$P(B|S): \mu_q(c_1,...,c_n) \rightarrow \Theta_q(x_1,...,x_n)|\Phi_q(c_1,...,c_n) \tag{13}$$

to embody the *dimensional information* required to insure structural consistency within the estimated model and the coherency of statistical inferences.

The 'significance' of a constructive model at the symbolic level is not established in terms of the probability measures associated with its quantitative parameters, but rather in terms of its existence as a valid symbolic representation of human perceptual experience. The process of logical inference is the process of hierarchically raising the measure of significance from the objective level of probability calculation on observed events, to the conceptual level of corroboration of the ensemble S_p described above by the conjoined hypothesis H. Thus, it is the significance of the hypothesis that is measured at the symbolic level in terms of its corroboration – its degree of certainty $C(S_p)$.

Since the time of Thomas Bayes, and his efforts in 1763 to establish a firm foundation for the logic of inference under *conditions of uncertainty* (probability had not been defined), controversy has surrounded the methods proposed to infer the significance of hypotheses

at the symbolic level from statistical knowledge at the objective level. The philosophical purpose of Bayes' Theorem seemed veiled throughout the 20th century, where it's meaning was often reduced to an arithmetic formula for computing conditional probability. Twelve score and more years have passed since the emergence of Bayes' Theorem. It seems almost miraculous that now, *"at the end of time",* the Heisenberg Uncertainty 'Principle' is being replaced by Bayes' *Principle of Certainty*.
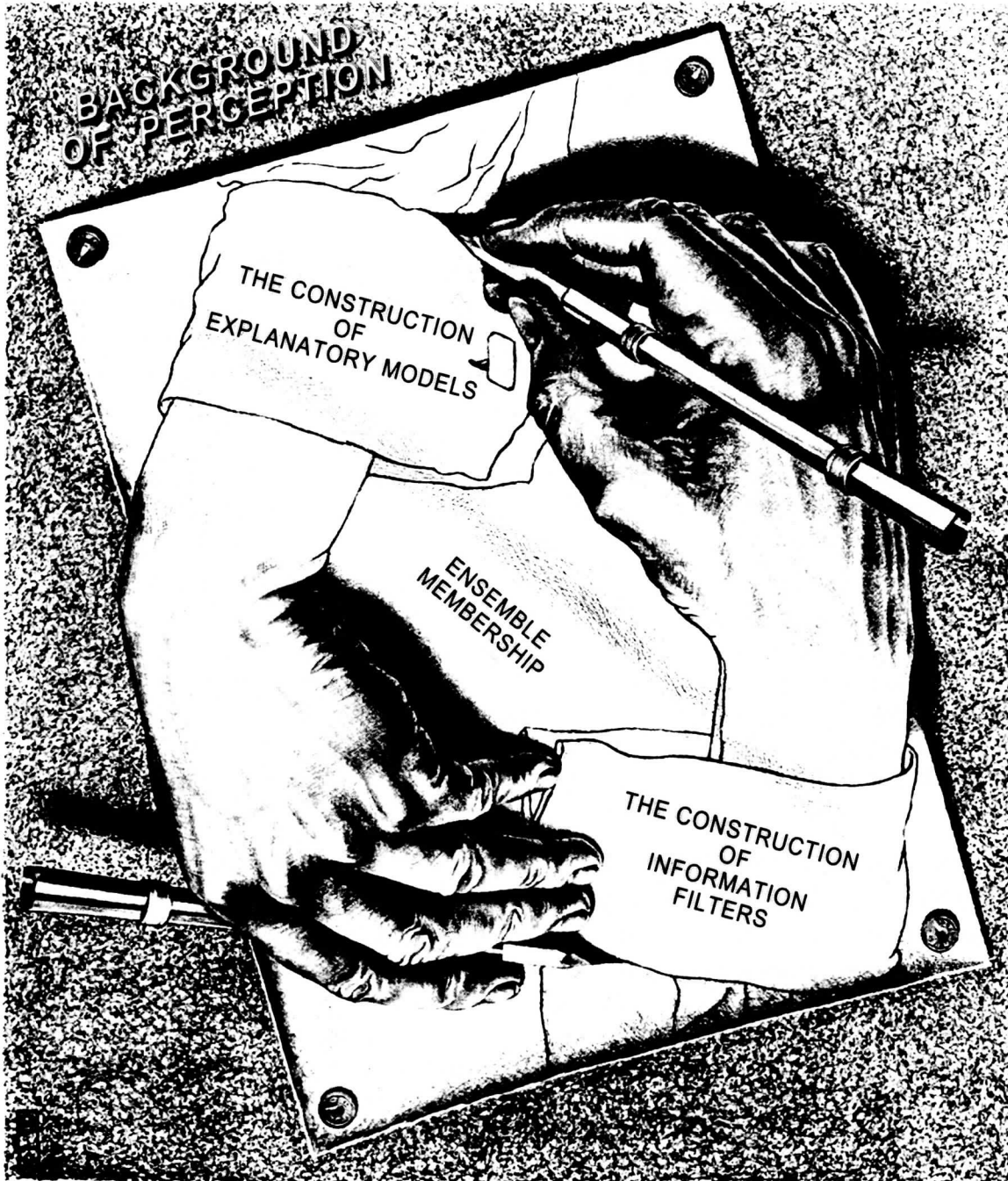
ESCHER 2. Constructing Interpretations.

Bayesian Inference and Fiducial Probability

The process of Bayesian inference starts by the collection of new probabilistic information $P(X|S)$ of an event e, conditional on the ensemble S_p, defined on the observations $\{X: x_1,...,x_k; c_1,...,c_j\}$ used to quantify the event. From the observations of the ensemble S_p we construct an interpretation of H:

$$H(K) \cdot H(I|K) = H(I) \cdot H(K|I) \tag{14}$$

$$P(B) \cdot C(S_p|B) = C(S_p) \cdot P(B|S_p) \tag{15}$$

The *certainty value of the ensemble* $C(S_p)$ can be interpreted as the degree of internal compatibility of the characteristics of the event e used as a fixed basis of reference for the ensemble. By combining the certainty value of the ensemble $C(S_p)$ and the *likelihood of the estimated structure* $P(B|S_p)$, we can create new probabilistic knowledge:

$$H(K,I) = H(I) \cdot H(K|I) \tag{16}$$

$$FP(X)_0 = C(S_p) \cdot P(B|S_p) \tag{17}$$

which incorporates the *instrumented information filter* $\Phi_p(c_1,...,c_n)$ of the ensemble S_p. We see this Algebra of Probable Inference as a cornerstone of a new scientific world-view of consciousness and human reality (see **ESCHER 2**).
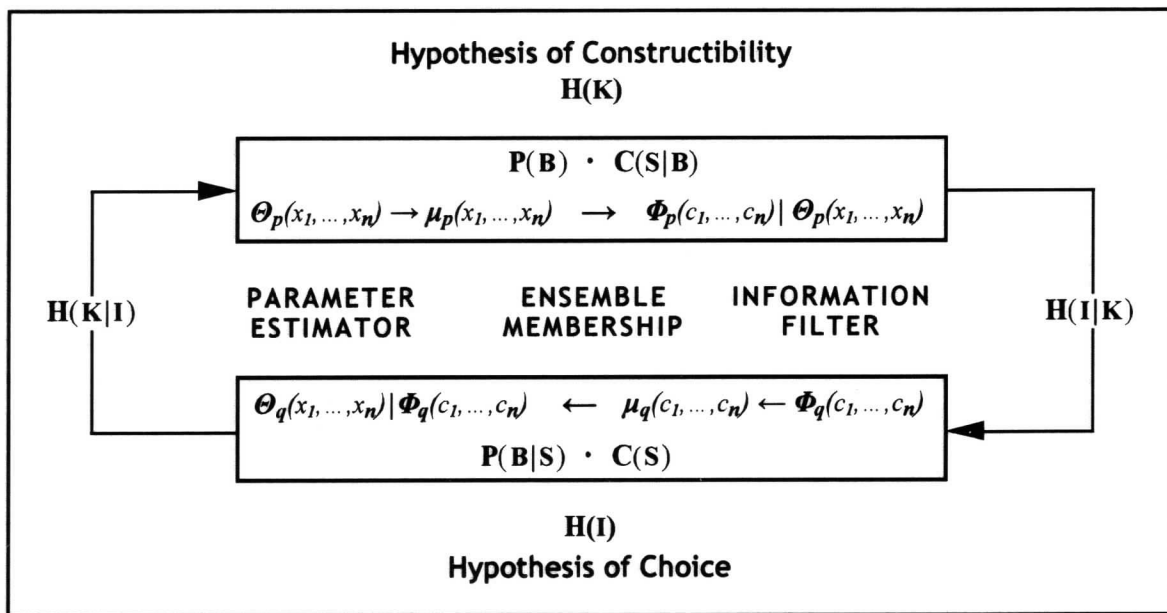
The generalized structural likelihood $FP(X)$ is the *'fiducial probability'* of X. It defines an objective probability distribution embodying all relevant information required to establish a fixed basis for instrumentation and comparison of alternative hypotheses. In general, a statistical inference is 'fiducial' when it can show how sample probabilities are typical of the population from which they come. Fiducial inference represents a powerful requirement:

> **The probability distribution used to establish confidence intervals on estimated parameters must incorporate, from observed instances, all *relevant information* regarding the maintained hypothesis.**

The concept of "fiducial inference" was introduced by R. A. Fisher in 1930 in a seminal paper for testing the statistical significance of parameter estimates. Although rejected by most statisticians of his day, recent generalizations have made the fiducial approach a powerful tool for deriving inference procedures.

The probabilistic knowledge contained in the *estimated structure* $P(B)$ can be extracted by combining the *conditional certainty of the ensemble* $C(S_p|B)$ with $P(B)$, providing an alternative measure of the fiducial probability of X:

$$H(I,K) = H(K) \cdot H(I|K) \tag{18}$$

$$FP(X)_1 = P(B) \cdot C(S_p|B) \tag{19}$$

Although Bayes' Theorem indicates that the inference from $FP(X)_0$ to $FP(X)_1$ should be exact:

$$C(S_p|B) = C(S_p) \cdot P(B|S_p)/P(B) \tag{20}$$

this will not generally be the case. For the Bayesian inference to be exact the membership functions of the two conjoined hypotheses $H(K,I)$ and $H(I,K)$ must be identical. When the membership functions are not quite the same, although they fall within the precision requirement of the construction, the difference between $FP(X)_0$ and $FP(X)_1$ represents another important aspect of the problem of constructing objective representations of scientific models. This is the problem of ambiguity of meaning. The relative difference:

$$F(X) = [FP(X)_1 - FP(X)_0]/FP(X)_0 \tag{21}$$

measures the '*fuzzyness*', or degree of ambiguity, contained within the inference. In this manner, 'Fuzzy' Bayesian inference provides a measure of both the *degree of certainty* and the *degree of ambiguity* of our probabilistic knowledge.

By introducing the *membership function* $\mu(x_1,...,x_n)$, we compute the *certainty* $C(S_p)$ that each instance of an observed event is a member of a specific *ensemble* S_p embodying all the relevant characteristic information required for Fisher's concept of fiducial inference; namely, the common characteristics which define the ensemble and uniquely instrument a probability state of the *information filter* $\Phi_p(c_1,...,c_n)$. We believe this formulation is aligned with the original intent of Bayes' Theorem as a *logic of coherence* under uncertainty.

Theories of Hidden Variables, Latent States and Nonlocality

The Multivariate MAP is used to identify *hidden instrumental variables* characterizing possible superpositioned latent states and possible quantum entanglement in the multichannel structure. In quantum physics, a hidden variable theory was first proposed in 1952 by David Bohm. He later suggested, based on his personal experiences in quantum physics, that theories of hidden variables may serve in all fields of science:

> "The demonstration of the possibility of theories of hidden variables may serve in a more general philosophical sense to remind us of the unreliability of conclusions based on the assumption of the complete universality of certain features of a given theory, however general their domain of validity seems to be."

In his approach to quantum mechanics a system of particles is described in part by its wave function according to Schrödinger's equation. The description is then completed by specifying the actual positions of the particles. These evolve according to a "guiding

equation" expressing the velocities of the particles in terms of the wave function. Bohmian mechanics is called the 'pilot-wave' model of hidden variables and establishes a *causal interpretation* of quantum mechanics. This 'guiding field' approach was first explored by Einstein. The approach is also called the 'de Broglie-Bohm theory', because in 1927 de Broglie had described an equation of particle motion that was equivalent to the guiding equation, that could account for quantum interference for a scalar-wave function.

In his celebrated 1964 paper, "On the Einstein-Podolsky-Rosen Paradox," Bell showed that quantum theory is *irreducibly nonlocal*. It was his examination of Bohmian mechanics that led Bell to his nonlocality analysis and the proof in which he derived Bell's inequality, the basis of his conclusion of quantum nonlocality. Bell proved that any hidden-variables formulation of quantum mechanics *must be nonlocal*, as, indeed, Bohmian mechanics is.

The hidden variables model inherits and makes explicit the nonlocality of a wave function on the configuration space of a many-particle system in quantum theory. It accounts for all the unique phenomena governed by nonrelativistic quantum mechanics: from spectral lines and scattering theory to superconductivity, to quantum computing and the quantum Hall effect. Upon analysis of the two equations of motion, Schrödinger's equation and the guiding equation, all of the measurement postulates of quantum theory are established, including probabilities given by the absolute square of the magnitude of the wave function and its apparent 'collapse'. These emerge from the analysis without any need to invoke the Heisenberg uncertainty relation or other special status for emperical observation.

In an analogous manner, the Multivariate MAP describes in part the multichannel adaptive process model according to classical GLS estimation of the multichannel adaptive structure (see equation (9)). The description is completed by specifying the actual channel states of the multichannel adaptive process. These emerge according to the "guiding equations" of the latent structure model, expressing the latent states of the multichannel structure in terms of P_S (see equation (8)), the multichannel identity matrix of the adaptive process model. We initially described, programmed, and deployed this multi-channel adaptive process approach in 1976 as an econometric statistical package designed to run on mainframe scientific computers.

In Bohmian mechanics, the probability density for the Schrödinger wave function ψ in the configuration q, is $|\psi(q)|^2$. These results are said to agree with those of orthodox quantum theory, provided that the configurations are *random* with probabilities given by the *quantum equilibrium* distribution $|\psi(q)|^2$. This *quantum equilibrium hypothesis* has been explored in considerable detail. It seems remarkably difficult for statisticians to see that *uncertainty* as a measure of *randomness* is not a presupposition of *de-coherence* as a measure of *non-equilibrium.*

Today we see non-equilibrium quantum field theory involved in a fascinating interplay of quantum dynamics and coherence. As in Bohmian mechanics, the equilibrium hypothesis is required for non-equilibrium quantum-field techniques to decode "quantum information" from entangled quantum correlations. The significance of this '*information*' at the level of entangled 'correlations' arises from the level of the corroboration of ensembles, from the *relevant information* regarding the maintained hypothesis.

The fiducial probability distribution used to establish confidence intervals on estimated parameters requires the incorporation of this information that is *entangled* in the observed

instances regarding the maintained hypothesis. We are NOT talking here about some sort of random sampling process or mathematical probability generating function! We are not talking about the empty randomness of statistical theory. We are talking about how sample probabilities must be typical of the *real population* from which they come, about the *entangled causal information* in the empirical instrumented information filter of the ensemble, in the guiding equations of the latent structure, in the *causal structure of hidden instrumental variables* in the pilot-wave; about the real meaning of 'entanglement'.

The *certainty of an ensemble* can be interpreted as the degree of internal *compatibility* of the characteristics of the ensemble – as the degree of its coherence or equilibrium. The quantum information encoding of entangled quantum 'correlations' are characterized by de-coherence or lack of equilibrium and relate to uncertainty in the instrumental variables, not to randomness in the structural information of correlations of stochastic processes.

Generally, dynamical systems do give rise to statistical behavior, with the statistics for the dynamics being described as a stationary probability distribution. For a Bohmian *quantum equilibrium hypothesis*, however, stationarity of the distribution is not what is needed; rather, it is the notion of *equivariance* that is required. A probability distribution ρ^ψ on configuration space, depending upon the wave function ψ, is *equivariant* when

$$(\rho^\psi)_t = \rho^\psi_t$$

where the dependence on t on the right arises from Schrödinger's equation and on the left from the evolution of probability distributions arising from the flow induced by the guiding equation. Equivariance expresses the mutual compatibility relative to ρ^ψ of the Schrödinger evolution of the wave function and the Bohmian motion of the configuration. In this manner we see the orthodox constructive theory of Heisenberg's uncertainty relation replaced in quantum mechanics by Bohm's quantum *equilibrium hypothesis* as an *empirical principle of equivariance*.

The *equilibrium hypothesis* for Multivariate MAP is the same as in Bohmian mechanics, and requires the same notion of *equivariance*. What has been established over the years as an equilibrium requirement for Bohmian mechanics was incorporated in the original description and program specification of Multivariate MAP as the *'precision requirement'*.

Emergent Process of Bayes-Einstein-Fisher-Bohm-Bell

We interpret the principle of a *guiding field* introduced by Einstein, and the principle of a *pilot wave* introduced in de Broglie-Bohmian quantum theory, as representing pioneering exploratory statements of an *emergent process physics* within the Science of Creation. Einstein was right, "God does not play dice with the Universe"– or, as David Bohm said, "there is an Implicate Order". In Bohm's words (1980):

> "There is the germ of a new notion of order here … a total order is contained, in some implicit sense, in each region of space and time. Now, the word 'implicit' is based on the verb 'to implicate'. This means 'to fold inward' ... so we may be led to explore the notion that in some sense each region contains a total structure 'enfolded' within it."

For hundreds of years, the quiet voice of intuition has pointed out both the randomness and the certainty that exist in nature. It has reminded us that in the emergent processes of creation, what we think about is our point of attraction, and what comes back to us – what begins to emerge in many different ways – is the objective reduction of possible

vibrational matches. Some look for randomness, and randomness emerges.

Some look for certainty, and with coherent persistent focus, the many coherent points of attraction fold inward to become an enfolded ensemble of an implicate order; a new creation of the universe, a new point of emergence within the Science of Creation.

The Rev. Thomas Bayes (1702-1761) focused on the coherence of the universe, and a *Principle of Certainty* emerged. Bayes' Theorem is the expression of that principle. Einstein and Bohm looked for additional principle theories of coherence, and the guiding field and pilot wave principle emerged and is beginning to enfold itself. Fisher intuited the principle of fiducial probability as a measure of coherence, but got lost in its expression.

So what has happened to coherence? Structural uncertainty (lack of coherent identification) and correlated 'independent' variables (simultaneous equation bias) are important and pervasive problems in the statistical estimation of structural models. A partial solution to this problem, widely used in econometrics when estimating a system of simultaneous equations, has been to use 'reduced-form' equations that incorporate *predetermined* instrumental variables and *'indirect least-squares'* or *'two-stage least squares'* estimation.

A random variable Z is said to be an *'instrument'* if it is highly correlated with the independent (explanatory) variables of the structure but is uncorrelated with the residual errors of the equation and any measurement errors of the variables. This approach guarantees consistency, but structural uncertainty still exists (the 'identification problem') unless all structural parameters are estimated from a system of reduced-form equations.

In the past, when structural parameters were 'overidentified', a two-stage least squares *'instrumental-variables'* estimator was frequently used to remove uncertainty. This pragmatic approach has been the best that could be done under the implicit assumption that there was only one latent state in the multichannel structure. When the multichannel structure is made explicit, however, this 'naïve' assumption was frequently not supported.

Now, in Multivariate MAP the *Indicator Variables* in the *Latent Space* are predetermined instrumental variables whose system of reduced-form equations form a *'state-entangled'* latent structure defining the *Characteristic Identity* of the *Latent States* (see MAP, page 4). The existence of the preexisting values of the *a priori* indicator variables determine the latent states of the *Multichannel Structure*.

According to Bell's theorem:

> "the *assumption of locality* implies the existance of noncontextual hidden variables Z which can be regarded as corresponding to preexisting values of all possible states of the system, *i.e.*, the *existence* of hidden variables is demonstrated by measurements on *non-local* variables of the system which reveal the preexisting values of the hidden variables. If the results were not predetermined, the correlations of widely separated residual innovations implies the influence of *nonlocality*."

Bell's Inequality completes the emergent process of Bayes-Einstein-Fisher-Bohm-Bell, as a multivariate Multichannel Adaptive Process (MAP) that estimates explanatory models of *latent structure*, whose reduced-form may (but need not) include non-local variables that identify and instrument the superposition and entanglement of subtle energy; and as a statistical methodology capable of demonstrating the presence or absence of *nonlocality* and mapping the movement and characteristic identity of emergent processes as *latent energies and objects* of scientifically perceived spacetime events.

Specific Meaning

In particle physics Penrose has described how the superpositioned quantum field of an object spontaneously 'collapses' to a single objective state when it reaches an objective threshold of coherence. Escher, however, sees things differently (see **ESCHER 1**). For him, the world is neither fish nor fowl, but a combination of both. Each species has established an objective threshold of coherence and can therefore be perceived by an observer.

Sometimes an observer like Escher can sense multiple *coherent subtle energy forms* in superposition (in the background of their perception) because they are entangled with the quantum information. Indeed, objects are never seen by observers because the quantum field has collapsed in any sense, but because entangled quantum information has been filtered sufficiently for a personal interpretation to be constructed (see **ESCHER 2**). This is exactly how the Multivariate MAP constructs GLS interpretations of explanatory models.

Once the Multivariate MAP has identified hidden instrumental variables in a domain such as subtle energy or energy medicine, the specific meaning of the quantified instrumental variables may then be actively pursued by the scientific mind, thereby achieving the fundamental objective of the methodology.

Of course, if no instrumental variables exist in the latent structure of the domain, or if no latent states are identified in the manifested space, then a classical single-state statistical model of random variables makes sense. In such cases, however, the *causal states* of the multivariate MAP cannot be identified and often NO significant structure will be found when the precision requirement for structural estimation is preset to the coherence level necessary for professional scientific research.

When the GLS estimator has established an *a priori* objective threshold in the manifest space, it frequently will identify two or three adaptive process states at that level of precision, depending on the sample size. Larger samples often yield more multivariate channel states, but this does not necessarily imply that more superpositioned latent states have been found. Most often in wantabe PhD student research, it is simply a lack of statistical stationarity in the mean, variance or correlation structure of the sample data.

The value of this methodology and statistical analysis is that it provides new *instruments of perception* that allow the specific meaning to include *the observer*. This is important because it can help us see how quantum systems entangle quantum objects, instruments of observation, and the observer as an instrument of perception. Most importantly, it can create a dynamic map of how *creative human intelligence* can be optimized, by

creating an objective view of possible alternative pathways for the manifestation of a more effective, healthy and joyful *'psychology of motion'* of our characteristic identity.

This is the real purpose of the methodology. It is the reason we have taken the time to lay down a preliminary description of this approach and how it relates to subtle energy and energy medicine. *** The actual application of multivariate MAP is not being proposed. ***

The objective has been to illustrate, in a relatively concrete manner, how the instruments of human perception are linked with representative characterizations of 'superpositioned' latent states and their objective reduction; and to demonstrate how such formulations can be described within the generally accepted scientific framework of quantum physics.

Common Sense

All of this may have the appearance of being scientific, but does it make common sense? For most people the idea of *'objective reduction of quantum entangled subtle energy'* is not understood. It might appear as a 'professional skill' in the "*Science* of the Miraculous", but to the rational mind, the whole process still seems miraculous. Although many people are familiar with the principle of quantum entangled subtle energy, very few understand it.

Indeed, who today understands quantum physics? To theoretical physicists, what most people call quantum physics is just a mythology. But for many people, the "objective reality" of the scientific observer is also a mythology. Where in objective reality do we experience the 'quantum entanglement' of the observer? Still, it is true that many people around the world directly sense subtle energy every day, and it is very likely that there are many individuals at this conference who quietly incorporate aspects of the "Science of the Miraculous" in their personal and professional lives.

As Arthur C. Clarke has said, "Any sufficiently advanced technology is indistinguishable from magic." Quantum information entanglement and subtle energy are fundamental constructs of consciousness and cornerstones of an emerging *Science of Possibilities*. Subtle energy will continue to seem miraculous to our 'common sense' until our collective interpretation of the world and the fundamental nature of humanity has radically changed.

The Science of Possibilities

As Richard Bartlett explains in Matrix Energetics, when we look at the reality around a situation and the way it will play out, consciousness enters into the act of observing. As the conscious observer, we project a pattern of alternative interpretations of what's going on in the situation and the possibility of various things happening – a configuration of alternative outcomes regarding what's being observed.

As the *observer* of the quantum field we can see *alternate possibilities*. In the quantum field everything that can possibly happen already exists in consciousness as parallel dimensions. These possibilities are *alternate realities* that can occur; alternate sets of likely probabilities around a situation that establish the way the situation will evolve. There's a big difference between seeing all the 'possibilities' – everything that could possibly happen; versus structured thinking about mathematical 'probabilities' – the statistical estimation of the likelihood of what will happen in a situation, given for example, our scientific interpretation of the conditions that we are observing in each moment.

As Bartlett says, "If what's probably going to happen in a situation doesn't look good, or isn't what we would like, we can change the probable outcome by changing the 'state' of our reality; by switching to another possibility with a different set of likelihoods of what's going to happen." When the process is understood, such outcomes are not seen as miraculous. Individuals who are *strategic thinkers* and *action oriented* do this in small ways many times each day.

> "In a reality where we can switch things around and see them differently, those possibilities become more probable because of the *way* we look, and *how* we focus, and *what* our intent brings to the situation. What is probably going to happen given the reality, *i.e.*, *the 'subset of expectations' we have set up for that 'encounter'*, will have a whole different outcome."

3-D Holographic Process of DNA Reality Projection

Superconscious
Superconductive
Realms of Spirit
Subquantum Level

The Operator
Density Operator
Time-recursion Operator

Sphere 4
Dimensions 1-3
Soul Identity (Human Vehicle)
(Endogenous Hyperstructure of the Observer)
Quantum Physical 1
Feelings - Intuitions
Emotional 2
Conscious Awareness
Density 4 EGO
Mental 3
Collective Thought Sphere

Projected Human Instrument
(DNA-Projected Hyperstructure)
Personal Identity
Perceptual Reality 4
Physical Senses
Thoughts - Beliefs
Perceived "Physical" World
Projection Operator

The Observer
The 3-D Space/Time Holographic Realms of the Physical Universe

Quantum Field

Domain of Unity of the Forces of Glory

The Environment
Density Environment
Time-recursion Environment

Sphere 4
Dimensions 1-3
Planetary Logos
(Endogenous Hypersubstrate of Planetary Body)
Causal 3
Noumenal 2
Planetary Environments
Morphogenetic Fields
Density 4 NATURE
Etheric 1
Quantum Matter

Projected Human Nature
(DNA-Projected Hypersubstrate)
Entangled Phenomena
Emergent Reality 4
Matter
Energy
Attracted "Physical" Reality
Manifestation
Projection Environment

The Sci-Tech Planetary "Holodeck"
(Synthetic Holographic Technology)

The Hologram

David Bohm introduced the hologram to characterize the concept of an *'Implicate Order'* in his book *Wholeness and the Implicate Order,* noting that each region of a photographic plate in which a hologram is seen contains within it the whole three-dimensional image, which can be viewed from different angles. With respect to the Implicate Order, Bohm asks us to consider the possibility

> "that physical law should refer primarily to an order of undivided wholeness of the content of description similar to that indicated by the **hologram** rather than to an order of analysis of such content into separate parts…"

"Toto, I've got a feeling we're not in Kansas anymore." (says Dorthy in *The Wizard of Oz*, as the movie switches to Technicolor after a tronado has dropped her farmhouse into Munchkinland.)

Welcome to Munchkinland! (You're not in Kansas anymore.)

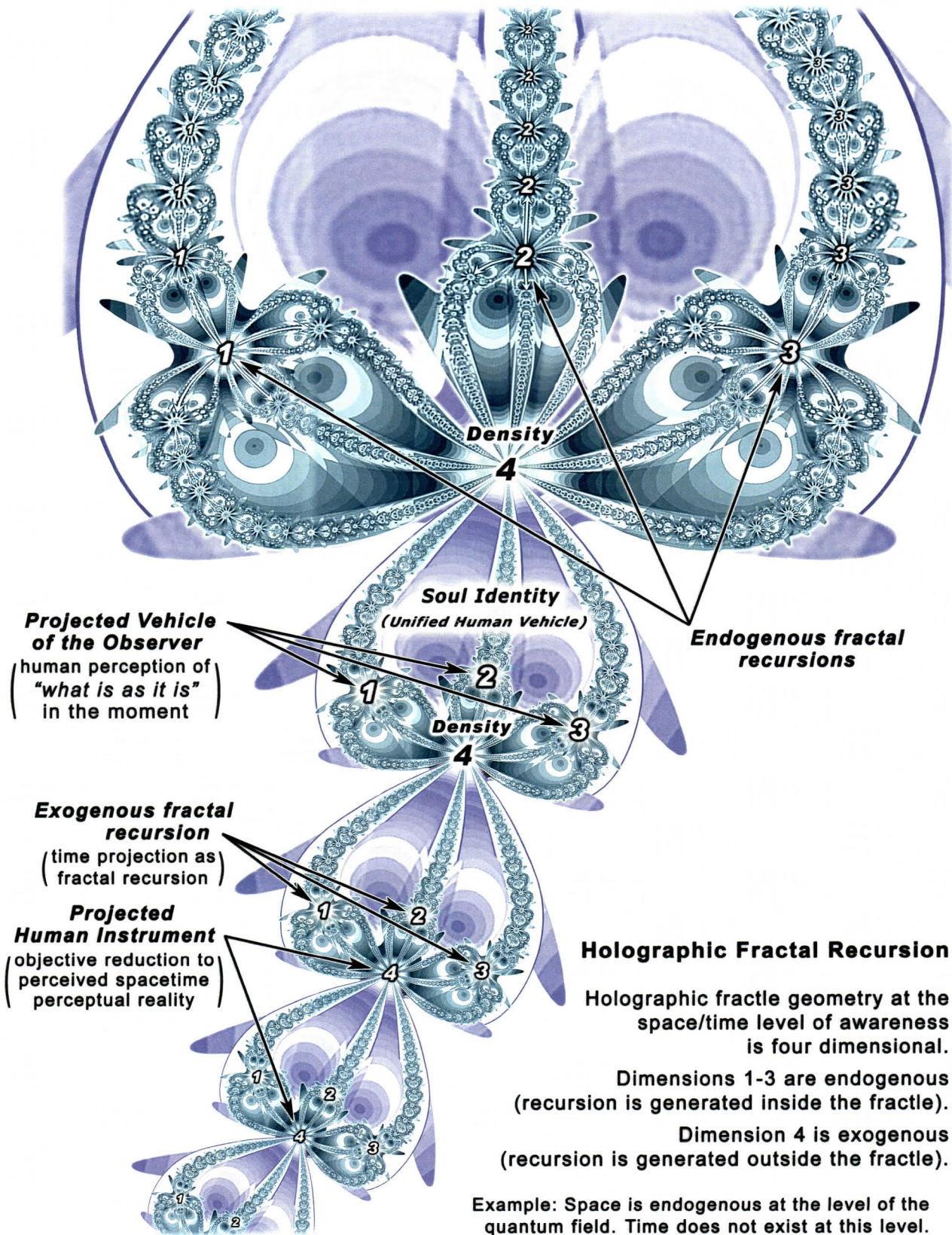## Science of Creation within the Implicate Order

How are physicists entangled with the instruments they use for observing particles? How are we entangled with the world we perceive? We have said that the *self-aware observer* needs to be included in our reality as an *instrument of perception*. When we are able to change our personal identity to align with this understanding, we *know* that "'our' body is not our body"– it is a multi-density *human instrument*, and "'our' mind is not our mind"– it is an instrument of *planetary awareness*. It is from this *quantum identity* that the driving forces of the Science of Creation can be fully activated and truly known.

Make this change in viewpoint and note how the power in your focus is activated. It shifts your focus to actions and reactions in the moment, it attracts the forces of nature (that are responding to you with a vibrational match); and in that *instant*, new 'information/identity' entangles the reality You experience (as a self-aware, hyper-dimensional human being).

From a three-dimensional viewpoint, the multi-density human vehicle of *'the Operator'* consists of three holographic components: the *quantum physical*, the *emotional*, and the *mental*. These three distinct tools are simultaneously employed by the self-aware *'Observer'* within its systems of intelligence and perception, to instrument a multi-density vehicle as it interacts with the physical dimensions of space and time, matter and energy.

The self-aware observer does not exist within the three-dimensional world, but uses the *'ego-mind'* to develop a value system that is aligned with the consensus of society or a group within the broader social order. Human knowledge, morals, values, attitudes, and behavior are largely cultivated by the underlying social structure of our material world. However, self-awareness cannot reveal itself to a mind that is enculturated and bound within such a world. This is why the logic of the ego-mind and the finely tuned inquiries of Western science have not been able to understand the *consciousness* of the observer.

Change your viewpoint from the constraining ego of an ancient planetary mind to the vast quantum identity of a self-aware Observer. Freely allow your new self-identity the full use of the human vehicle. See the body, mind and emotions as an instrumented system of intelligence and perception within the multi-density vehicle. Become a coherent driving force in the Science of Creation emerging within the unity of the three-dimensional world! When one no longer identifies with the ego-mind, direct experience will reveal the secrets hidden within the words, "your body is not your body" and "your mind is not your mind".

Density
4

Soul Identity
(Unified Human Vehicle)

Density
4

**Projected Vehicle
of the Observer**
(human perception of)
"what is as it is"
in the moment

**Endogenous fractal
recursions**

**Exogenous fractal
recursion**
(time projection as)
(fractal recursion)

**Projected
Human Instrument**
(objective reduction to)
(perceived spacetime)
perceptual reality

Holographic Fractal Recursion

Holographic fractle geometry at the
space/time level of awareness
is four dimensional.

Dimensions 1-3 are endogenous
(recursion is generated inside the fractle).

Dimension 4 is exogenous
(recursion is generated outside the fractle).

Example: Space is endogenous at the level of the
quantum field. Time does not exist at this level.
The time dimension of the fractal is exogenous –
it is generated from within the human instrument.

David Bohm expressed a similar concern regarding the scientific logic of the ego-mind. Here he speaks of the problems created by human thought (1980):

> "Human thought is a global system that is constantly creating problems and then trying to solve them. It has been doing this for millennium. But as it tries to solve problems it makes them worse and creates new problems. Apparently, the more we think, the more problems we create.
>
> One begins to wonder what is going to happen to the human race. Thought is the one thing we have with which to solve our problems. And so science and technology keeps on advancing with greater and greater power. Yet it looks as if the thought we use to solve our problems is actually the source of our problems."

As James (creator of the *WingMakers* materials) recently said in a Lyricus paper, *The Art of the Genuine*, the knowledge structure of the ego-mind observes the surface ripples of the Observer, but the profound source of these ripples is the deep subquantum structure of all things, material and non-material. The ego-mind searches for the expression of intelligence in the significance of activity, whereas the Observer is intelligent unto itself. The ego-mind seeks the pay-off of activity or the rewards of consequence, while the Observer seeks to sustain a culture of Oneness within the dense worlds of form.

The breakthrough to the subquantum level can be understood as the alignment of our self-aware existence to the vibratory field of quantum primacy. Although this non-physical field exists independent of all physical structures of existence, it is a primary field of vibration that informs and entangles the physical world with information and identity. This subquantum information structure gives rise to the quantum fields that interpenetrate planets, stars, galaxies, and the universe at large.

The subquantum level is the communication field of life that connects the local and the nonlocal, the individual and the collective, the one and the infinite. It represents the primary blueprint for the creation, sustenance, maintenance and dissolution of all living systems and inorganic matter.

The entryway for information/identity entanglement from the subquantum level within the quantum field is via 'portals' created by the *energetic heart*. This subquantum component informs the intuitive and intelligence centers of the Observer and entangles the biological, emotional, and mental components of the human instrument.

Hierarchy of Vibrations

This agency operates throughout the inter-connective energetic fields of the multiverse to maintain a domain of coherent oscillations – a *Domain of Unity* that sustains intuitive and intelligence centers of the energetic heart and that surrounds the human instrument. It is from this dynamic movement of *Oneness* within the unity of our three-dimensional world that the Science of Creation sustains a coherent driving force within a human instrument.
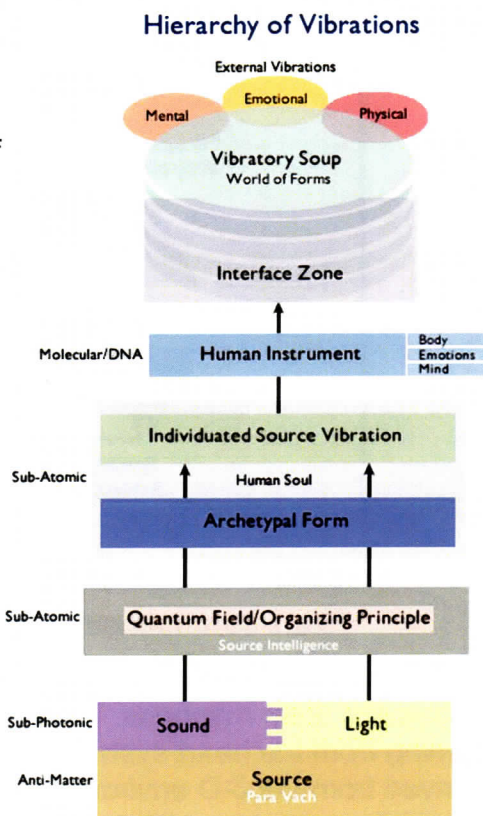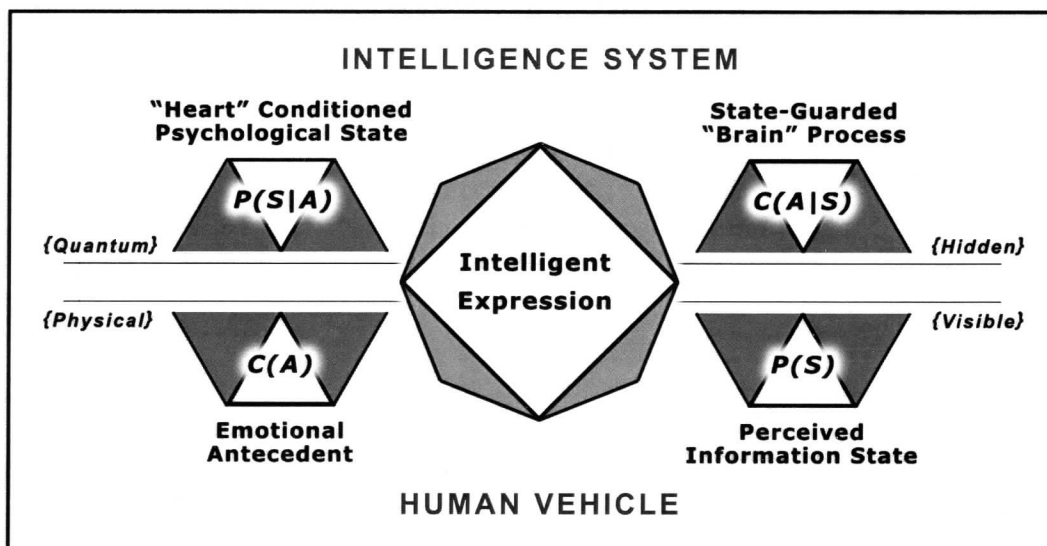
Whatever their viewpoint, each individual is an active participant in the reality structures they perceive and experience in the worlds of form. This participation occurs primarily through the intersection of the subtle energy centers of the human instrument with the material world, dynamically shaping their reality on the ascension path from a being of childlike innocence to being a conscious co-creator of new realities.

It is natural to desire to move beyond the dense vibrations that impede the free expression of the energetic heart. However, countless generations of humans have deposited heavy energetic vibrations within the earth. These heavy vibrations must now be transformed in some manner as the planet shifts its core frequency to a higher dimensional state.

Intelligence of Perception and Expression

Just as the physical heart has an energetic or 'quantum' counterpart, so does the brain. These two organs and their peripheral systems are completely integrated at both the physical and quantum levels. It is not that the heart transmits a request to the brain, and the brain elects to act on it or not; the heart and brain are a unified system that cycles and recycles energy, intelligence and information within the human instrument. When expressing its innate intelligence in 3-D environments, the system operates best when it is entrained to the core heart energy of compassion and understanding.

INTELLIGENCE SYSTEM

"Heart" Conditioned Psychological State — $P(S|A)$

State-Guarded "Brain" Process — $C(A|S)$

{Quantum}   {Hidden}

Intelligent Expression

{Physical}   {Visible}

$C(A)$ — Emotional Antecedent

$P(S)$ — Perceived Information State

HUMAN VEHICLE

Heart-Conditioned Intelligent Expression of State-Guarded Perception.

Emotions are imbued with texture and subtlety, and emotional authenticity is a key element in how the brain responds. The higher brain system is designed to filter the emotional data coming from the heart system to determine if the textures and subtleties of the data are derived from the 3-D environment, are derivative of personal emotional history, or are resonating core heart frequencies. The heart and brain systems are designed to enable those who can apply their imaginations from the core heart frequencies to access the higher intelligence available at the higher frequencies of the genetic mind.

Like an internet computer, the heart is also the gateway to the multiverse. The heart has the ability to decode emotional frequencies from the highest levels of the multiverse and express them in physical environments through a 3-D human instrument. Emotions can

even operate outside of space-time when they are in resonance with the higher circuits of the multiverse. Thus the human instrument is designed with an innate capacity to express from any dominant frequency or sphere of the multiverse.

Imagine filaments of light that diverge from our quantum or energetic heart and connect us to a broader grid. This holographic gridwork of light that we access is the fundamental structure of our existence in the three-dimensional environment; it is the source of our existence as a physical being. This intelligent grid, that interconnects all these elements and causes them to operate efficiently as a system, also unifies a quantum field and allows it to operate independently of the multiverse.

When the intuitive intelligence of our collective consciousness is instrumented within the facets of the abstract mind and identified with the emotional system of the energetic heart, we can connect to the direct cognition of the light-energy grid, where a single word in a seed thought can catapult us into profound understanding. Such *intuitive intelligence* is the secret key to the knowledge that matters; knowledge that changes everything in our time-locked perceptions of the past, present and future.

Knowledge, when synthesized and coherently balanced within the activities of manifested life, emerges as a form of *process intelligence,* whose characteristic quality mankind describes as "*wisdom*". Science, therefore, contributes to the integral synthetic conscious-ness and collective wisdom of the species when it directs its purpose to the externalization of hierarchical systems of knowledge that capture the awareness, pure reason and self-reflection of intuition within the collective consciousness. In this way, Science itself becomes an emergent process of the Higher Evolution, creating its own interactive synthetic reality within the evolving collective consciousness of the human species.

The Heart's Holographic Gridwork (from Drunvalo – Living in the Heart).

3D Graphics provided by David Senita

The Universal Realms of Holographic Space-Time Creation

2
Eternal
Logos
Vishnu
Glory

Divine

Ain
Soph

Shiva
Energy

Brahmâ
Intelligence

Emanations
of
First
**Source
Intention**

Corridor 1
Corridor 2

*Kingdom
of Nature*

Spectra
Body
Eternal
Logos

Corridor 3

*Kingdom
of God*

Corridor 1
Corridor 2
3
Spectra
Body
Eternal
Logos

Corridor 1
Corridor 2
Corridor 3

4
Avatâras

Corridor 4

**Trimurti
Archetypes**

Life-energy Templates of the Inner Universe

Sphere 1
Sphere 2
Sphere 3
Corridor 4

Inner Worlds of Formless Entity Consciousness

Sphere 1
Sphere 2
Sphere 3
Corridor 4

Life - Form
Activities

*12-Dimensional
Holographic Realms*

**Radiant
Nature
of the
Solar
Logos**

**The
Unified
Universes
of Spirit**

**Universal
Spirit
Atman**

**The
Unified
Consciousness
of Spirit**

**The Multiverse of
4-Density 'Space-Time'
CREATION**

Systems of Life & Light in the Outer Universe

Density
2
9 8 7
Universal
Oneness
Density
1   10
6   3
5   4
12 11
Kundalini
Sphere 4
**Deva
Kingdom**

Outer Evolving Universe of Human Species

Density
2
9 8 7
Dimensions
Monad
Density
1 10
6 3
5 4
12 11
Avatar
Sphere 4
Antaryamin

*Superconscious
Superconductive
Realms of Spirit*

The Observer
*The 3-D Space/Time Holographic
Realms of the Physical Universe*

Dimensions
1 - 3
**Planetary
Logos**

*Endogenous
Hypersubstrate
of Planetary
Body*

Noumenal
2
Causal
3
Planetary
Environments
Morphogenetic
Fields
Etheric
1
Quantum
Matter
Density
4
NATURE

Dimensions
1 - 3
Soul Identity
(Human Vehicle)

*Endogenous
Hyperstructure
of the Observer*

**Quantum
Physical**
1
Feelings -
Intuitions
Emotional
2
Conscious
Awareness
Mental
3
Collective
Thought Sphere
Density
4
EGO

The Planetary "Holodeck"
*(as in StarTrek: Voyger")
of the Planetary Body*

**The transmission of a
Holographic MATRIX of
the Quantum Field as
Fractal Recursions
of the Planetary Body**

*Domain of Unity
of the
Forces of Glory*

The Human Vehicle
*(the Density 4 "Spacesuit")
of the Self-aware Observer*

**The conscious awareness of
the macrocosm within the
microcosm of the Observer –
the Fractal Recursion of the
reduced hyperstructure as
"what IS in each moment"**

Projected
Human Nature
DNA-Projected
Hypersubstrate
Entangled
Phenomena
**Emergent
Reality**
4
Matter
Energy
Attracted
"Physical"
Reality

Manifestation

Physical
Senses
Personal
Identity
Projected
Human Instrument
DNA-Projected
Hyperstructure
**Perceptual
Reality**
4
Thoughts -
Beliefs
Perceived
"Physical"
World

**Holographic Construction
of a
Perceived External
"Physical Reality"**

**Constructed as the Physical
Universe of 3-D Space/Time
from within the Human Body
as a Projected Instrument
of Human Perception**

*"The knowledge of how consciousness
evolves is the science of sciences."*
– C. Jinarajadasa (1921), *First Principles of Theosophy*,
Adyar, Chennai (Madras), India.

The Sci-Tech Planetary "Holodeck"
(Synthetic Holographic Technology)

Spirituality

The question is, "How far down the rabbit hole do you want to go?"

We start with Abraham, a nonphysical 'Abraham-Hicks', talking about "The Secret" (of the Law of Attraction), to create a frame of reference for the *REAL* stories that follow.

Abraham Speaks

… we invite you to sit back and observe this interview with 'Abraham' –
with a "group of beings from another dimension" (2007):

**We are Abraham. We are that which you are.
We are 'Source'. You are Energy.**

**We are here because you have asked. We are here in answer to your questions.
We are here to remind you of that which you are and have forgotten.
We are here to remind you of that which you now wish to remember.**

Are You ready for the *REAL* story?

"To call '*the Law of Attraction*' a secret is comparable to calling gravity a secret, as if you could keep its obvious results from being noticed. The secret they continue to hide, because of their fear of the response from the general public, is that nonphysical voices have once again, in your time, revealed, with precise detail, your reason for being, your relationship with all that is – and the power of your own connection with Source.

By editing out the heart and basis of this message, they have omitted any means of your understanding the affect of the Law of Attraction in your life. Without an understanding of the relationship between you and the Source within you, you are without guidance. And so, the world that surrounds you often seems secretive and ridden with problems beyond your control."

From a North Los Angeles Workshop (2000):

"The Universe does not know if the vibration you are offering is because of what you are imagining, or because of what you are observing. In either case, it is responding. Where emotion comes in is that emotion is your guidance or your response to your vibration.

Your emotion does not create. Emotion is your indicator of what you are already creating. As you think, you vibrate. And it is your vibrational offering that equals your point of attraction. So it's always a match. What you are thinking and what is coming back to you is always a vibrational match. The emotion, your Guidance System, is telling you what's coming."

An Evening with Essasane

It is a summer evening in 1996. Essasane has flown in from Paris and is staying in my home for a few weeks. We are alone this evening, having one of our many conversations.

We first met several months earlier in Egypt at the time of the solar eclipse. She had joined our group in the Kings Chamber of the Great Pyramid of Giza. She had been told to come immediately to the Giza Plateau to help anchor the axiatonal grid. Meridian lines of resonating star systems were being activated in the Great Pyramid. Her group had already been working with the axiatonal grid high above the Gulf of Mexico for several years, from their mothership…

It's about 10:00 pm. Suddenly Essasane disappears. She's still talking, but all that can be seen of her is her light-body, a glowing field of white light where she had been sitting. I said, "Essasane! You have just dematerialized! All I can see is your light-body!" She quietly replied, "Jon, you KNOW that *perception* is in the eyes of the beholder."

"OK", I said, realizing that what she said was absolutely true. She had not dematerialized, my consciousness had shifted. What I had thought was Essasane was just a '*perception*'.

My conversation with the glowing light that I called 'Essasane' continued for several more hours. It did not seem strange to me, although the situation was certainly unusual. What was strange was my bedroom! The room was filled with a blue light when I entered. That did not seem so strange – the Kings Chamber glowed with the same blue light. But I was also seeing four-dimensional blue vortices going out to infinity through all the walls!

Science as the Miraculous

Many scientists don't believe in the miraculous. It is a pity that they limit their perception in this way. The miraculous is around them everywhere, if only they had the eyes to see. To illustrate how science can be truly miraculous, I will reveal 'The Secret' of my life – how the Multivariate MAP emerged one day (well, almost) from the chaos of academia.

Until I was forty my life was productive but not very interesting. I grew up in the Ozarks and went to an eastern liberal arts college to get educated and study physics. A PhD fellowship pulled me to U of Chicago and fate picked a Nobel laurite (Milton Friedman) as my thesis advisor. After working a couple of years at Columbia University I was promoted to Associate Professor and awarded a Ford Foundation Research Fellowship. I loved the students at Columbia, and Manhattan was a great place to work, but it was not a good place to raise a family. So I moved to a quiet town in the Midwest as a professor at the state university. Again after a couple of years I was promoted, this time to Professor and Department Chairman. When I turned forty I had been a department head for eight years.

I was the typical educator-scientist, well trained but naive, with the childlike innocence of a person who could not even imagine what it might be like to have a metaphysical experience. Most people perceived me as a fairly smart dude leading an interesting life, but I knew better. All I knew, in the language of Abraham, was the "*law of attraction*".

So I asked my 'source' for a more interesting life. After a few months of being given a new psychic ability every week, I was no longer so innocent about why my life had been 'productive'. I knew better than to mention my crazy psychic experiences to anyone at the university, but it made managing my department simple, and lots of fun! Life was now very interesting. But I had no desire to exploit these psychic abilities. I asked my 'source' to take me to the next level and free me of distracting, non-essential psychic perceptions.

Soon after, I am an expert witness testifying before a government regulatory agency. I have just been sworn in. I suddenly see, with psychic vision, pages of questions on a legal pad. Then I notice that the attorney for the commission is holding a yellow legal pad. He asks me the first question on the legal pad that I see. Here we go! My body is taken over by my 'source', who it turns out, is just me at the next level. For the next three days, all I can do is watch in amazement, as 'Big Jon' focuses everything I have learned over twenty years into truly 'expert' testimony. I experience the thoughts being pulled together in my mind and I hear myself speaking with great conviction.

Over the next several months the validity of my testimony is confirmed, both legally and scientifically. Then, in a flash of insight, I realize that the exhibits I had prepared for the regulatory agency involve the application of a new scientific methodology. 'Big Jon' had been very busy at a subconscious level, long before being sworn in as an expert witness!

I realized that the only way to understand the new methodology was to experience it. But to externalize the methodology on mainframe scientific computers would require at least two man-years of program development. "OK", I say to mySelf. "I'm up for that. It sounds like fun! But I'll let You choose the path." I inform my Dean that I would like to step-down as department chairman and return to a position of teaching and research.

The Dean announces my resignation to the Department, adding that I will be granted a sabbatical leave by the university in recognition of my eight years of service. Then a Research Center at the university offers me a suite of rooms in their facility, the title of 'Research Professor', and the unconditional freedom to pursue my own research agenda.

When my last day as department head arrives, we are preparing the Chairman's Office for my replacement, a young Stanford PhD that I had hired six years earlier – who would eventually be selected as the Senior Vice President and Provost of the University. The phone rings. It is a Washington consulting firm specializing in regulatory matters. They have read my expert testimony and want to hire me. They have a ticket waiting for me at the airport and want to make me an offer I can't refuse. I agree to take the next flight out.

The consulting firm is the best in the industry. They already have industry clients lined-up. They introduce me to a highly-qualified assistant they have hired to assist me. They agree to pay me by the hour at twice my going rate, with all expenses covered. They say, "What else would you need from us before you are willing to sign our contract?"

I take a deep breath. How does this situation line-up with my research agenda? I decide to 'make-it or break-it'. I explain that what they want me to do requires a ten-million dollar mainframe computer. It will take some time for them to collect the needed data from their clients. I will need to recode some of my statistical programs on the mainframe. The work can only be done in my research offices at the university with the full-time support of their assistant. It may take a month. They agree. I initiate the needed paperwork at the Center.

Do I have Self-confidence? Indeed I do. Do I know how two man-years of work can be done in four weeks? I haven't a clue!

The consulting firm transfers the new assistant from Washington to my research offices, paying all per-diem expenses. I begin writing the computer code. Every day hundreds of lines of code need to be added to the statistical package on the mainframe. Each day the new code compiles and integrates into the existing package without error. It is a miracle!

After the first week we begin testing the integrity of the system, using data from the original expert testimony. All results are exactly the same. There are no computational errors in the revised package! After two weeks and thousands of lines of code, all of the required statistical methods have been coded and verified as computationally correct.

In two weeks a computational package for the Generalized Least-Squares estimation of Multichannel Adaptive Processes has been written and verified as error-free on a large scientific mainframe computer without experiencing any compiler or computational errors.

It *is science*, and it *is miraculous*; in fact, it is clearly the miraculous emerging as science!