

PHYSICAL LOGIC versus PHYSICAL DOGMA

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How much of contemporary physical theory has been supposition based on the absence of suitable mechanical explanations? Have many major concepts been accepted dogmatically with insufficient evaluation of the evidence and in violation of fundamental causality? How many physicists, who have accepted these fundamental dogmatic concepts, are willing to recognize, let alone acknowledge, that these concepts are invalid? Who is willing to rock the boat? The answers to these questions are evident. The real question is: How can causal reality be restored to Physical Science in light of this dogmatic brain-washing of the establishment.

Reality requires conceptual recognition. Conceptual recognition is achieved through causality. Logic is the criterion for validity. Logic can not be applied without conceptual recognition. Every Effect must have a Cause. Otherwise there is no valid basis for Physical Science.

Are you able to conceive the mechanics of action at a distance forces? Innate force can not qualify as a cause. It is an effect as Galileo proved when he dropped different mass objects from the leaning tower of Pisa. If gravity were an innate force proportional to mass the heavier object would have fallen faster! Therefore, if you believe that action at a distance results from innate force, your belief is an incorrect conclusion which is equivalent to superstition or magic! Are you aware that ALL physical phenomena can be explained without resorting to innate force concepts? Are you open minded enough to seriously consider the validity of a logical alternative? If so, then let's examine the evidence.

It is established that all matter is formed from atoms and molecules made up of atoms. The atoms in turn are made up of smaller particles. Quantum theory is based on the static attributes of three basic particles. The proton, electron and photon. Logic is divided into two categories. Deductive logic recognizes the reality of the evident discernable information. An example of a deductive conclusion is; All bachelors are unmarried. Interpolation is mathematical deduction. Inductive logic uses the relationship of discernable realities to arrive at logical conclusions outside of the realm of apparent or directly discernible experience. Mathematically this is the process of extrapolation. It is, therefore, logical to extrapolate the makeup of discernable matter into both the microcosm and the macrocosm. The distinction between macro and micro is that macrocosmic entities are more discernable which allows the deductive acceptance of their reality. Much of the microcosm is immeasurable so that deductive confirmation is arbitrary and not deductively confirmable. It was therefore logical for Gottfried

Wilhelm Leibniz, the inventor of the Infinitesimal Calculus, to set forth his concept of basic substance. In 1714 he stated in “The Principles of Nature and of Grace”:

“Substance is being, capable of action. It is simple or compound. Simple substance is that which has no parts. Compound substance is a collection of simple substances or monads. Monas is a greek word which signifies unity, or that which is one.

Compounds, or bodies are multitudes; and simple substances, lives, souls, spirits are unities. And there must be simple substance everywhere, because without simple substance there would be no compounds; and consequently all nature is full of life.”

Leibniz was a philosopher, mathematician and a theologian. His language is archaic and reflects his religious convictions but his logic is impeccable. He equates life to energy, uses appetite for velocity and uses perception for position.

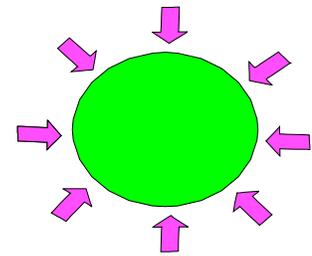
Leibniz’s postulation is a universal spatial fluid, which through the action of it’s basic component assemblies, forms all larger entities.

His concept is presented more clearly in his further statements:

“Monads, having no parts, cannot be formed or decomposed. They cannot begin or end naturally; otherwise they would have parts. And consequently last as long as the universe, which will indeed be changed but will not be destroyed. And consequently a monad, in itself and at a given moment could not be distinguished from another except by its internal qualities and actions, which can be nothing else then its perceptions (that is, representations of the compound, or what is external, in the simple), and its appetite (that is, its tendencies from one perception to another), which are the principles of change. For the simplicity of substance, does not prevent multiplicity of modifications which must be found together in the same simple substance, and must consist in the variety of relations to things which are external.”

How well does Leibniz’s logical inductive postulation fit the deducible data?

How can the action of a particulate fluid form larger entities? Do the larger entities suggest the nature of the formative action? Both the large spatial entities and the smallest discernable particles are generally spherical in shape. The relation between a spherical shape and the surrounding gaseous fluid in which it is immersed can be determined. It is evident that any possible spatial fluid would not have significant viscosity. It must, therefore, be made up of a great number of minute particles traveling at very high velocities to account for the emptiness of space and the wave transmission of energy. Such a particulate fluid approaches the properties of an ideal gas. An immersed object would be acted on by the impulse of all fluid particles whose direction of travel are intercepted by its displacement. The summation of impulse



received would exert a confining pressure on the immersed object as shown. The ideal fluid conditions surrounding the immersed object can be expressed in none dimensional terms as the altitude pressure ratio versus the relative altitude. The summation of fluid impulse acting on the object in any direction is proportional to its cross-sectional area while the impulse acting outward is proportional to the cross-sectional area of a surrounding sphere minus the object cross-sectional area. The equation for the volumetric pressure ratio in any direction can be reduced to a simple hyperbola. Figure 1 shows the ideal gas pressure field formed by fluid action. The volumetric field pressure is a straight line on a log log plot because the area ratio defines both impulse and concentration. In any specific single direction the change in volumetric pressure is logarithmic since only concentration varies. What does this prove? It proves that a field is formed around any object immersed in a fluid.

Classical physics is based on the transmission of inertial energy by mass with the exception of wave energy. Wave energy transfer is non-inertial. Wave energy is non-inertial because its energy is transferred from particle to particle and there is no mass through-flow. Why has the obvious wave transmission of electromagnetic waves been exempted from the presence of a transmitting particulate medium to enable the non-inertial energy transmission? The obvious reason is that a spatial medium has not been detected. This reason is not valid. The Michelson-Morley Experiment which has been cited as proof of the emptiness of space was conducted and interpreted by scientists who were ignorant of wave mechanics. Any layman who has heard the change of pitch from an approaching to receding train whistle and knows that sonic velocity is constant at specific pressure and temperature conditions can recognize that frequency and not velocity varies with source velocity. This is true because media resistance always equals wave dynamic pressure which is why wave velocity does not vary with frequency. Wave dynamic pressure is defined by wave particle velocity which is relatively equal to average media particle velocity. There is no reason for a wave to travel at constant velocity without the restraint of constant media conditions. The Silvertooth Experiment reported in R&M Number 20 (Sept./Oct., 1996) measured a light wave frequency shift with orientation relative to the earth's orbital path which confirms the ignorance of the M&M interpreters.

The measurement of a 2.7 degree K spatial background in deep space by the COBE satellite confirmed the universal presence of temperature. What is temperature? By definition absolute temperature is the reciprocal of coefficient of gaseous volumetric thermal expansion. Through what mechanism does temperature cause gaseous or any other expansion? Molecular gaseous fluid expansion results from the addition of more fluid into a flexible container. The same addition, when made to a rigid container, results in a temperature rise and the

emission of heat. Temperature and heat are obviously related. The behavior of temperature correlates with the action of a gaseous fluid made up of minute high velocity particles. These minuscule particles penetrate and permeate all materials. The materials contract or expand in proportion to the internal fluid pressure. This action accounts for the linear coefficients of thermal expansion. The Ideal Gas Law Pressure Equation is $nmv^2/3$ where n =particulate density, m =particle mass and v =particle velocity. Deleting the 3 yields the equation for 3 dimensional or volumetric pressure which correlates with the definition of temperature.

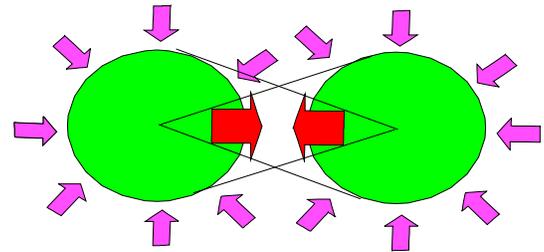
Planck avoided the violet catastrophe by multiplying a minute constant (h) times frequency. What is h ? Planck's law defines a quantum of energy which is h times frequency. If h is treated as the energy of a particle then hf is the number of particulate energy transfer events (impulses) per wave cycle. Frequency is number per unit time. The summation of wave energy per unit time is proportional to frequency squared because frequency is proportional to velocity and energy is proportional to velocity squared. Frequency is the source of the Quantum Number in Schroedinger's wave equation (S.W.E.) it is entered into the equation as a reciprocal which is $wavelength/2$. Whole number Eigenvalues are harmonic multiples. The restriction of Eigenvalues to whole numbers is not valid in most cases when the physical conception of the equation is recognized. The quantum dynamic energy attribute is the energy per cycle. The accepted definition of h and its units does not recognize the distinction between Planck's frequency and wave frequency. The mass in DeBroglie's Equation ($hf=mc^2$) is the summation of individual momentum transferring events which constitute a quantum of energy (nmc^2). The number of events is Planck's frequency. The reality of the equation is expressed by the recognition that $n=f$. m is the mass of the photon and h is its energy. The mass of the photon is introduced into each quantum dynamic attribute involving energy by h and hence the static attribute mass must be zero to avoid squaring h . The reality of Quantum Mechanics is established by the concept of a spatial fluid made up of photons whose energy is h at Standard Conditions!

Temperature is accepted as the source of energy. Since temperature is the volumetric pressure of spatial fluid, spatial fluid is the source of energy.

Our atmosphere is a complex fluid of electron coated molecules and atoms that exert a pressure of one atmosphere at sea level. Atmospheric static pressure varies only slightly with temperature because the increase in local dynamic pressure with temperature is dissipated by lateral diffusion. Energy is transmitted to the atmospheric particles from the spatial fluid field in which they are immersed. The amount of energy transferred is proportional to the ratio of the particulate masses and the number of impulses acting on their surface. Since surface area is proportional to diameter squared and mass is proportional to volume, the amount of energy transferred by the aether particles is inversely proportional to particle

diameter. Avagadro's Number confirms the validity of the mechanics since the same number of atoms exert the same pressure at the same temperature. All of the various atmospheric particles are in an average static state of energy equilibrium although their average velocities vary with mass. The most significant factor is the difference in energy transmitted with mass ratio. Since more energy is transmitted to a particle with less mass, more energy is transferred per unit surface area. The smaller the particle the greater its energy in the equilibrium state.

The increased energy transfer with diminishing size explains the cohesive force of surface tension and the formation of liquid droplets. The droplets of molten metal from a welding torch usually harden in somewhat spherical shapes. The sphere contains the maximum volume per unit surface area and is therefore the ultimate product of external fluid impulse pressure. All of the foregoing evidence supports the existence of a spatial fluid. The remaining question is: How does the spatial fluid concept deal with action at a distance forces.



As two spherical objects approach proximity they interfere with each others spatial fluid fields reducing the impulse in the areas shielded from surrounding spatial fluid action as shown. The resultant force imbalance produces the apparition of an attractive force. The spatial fluid impulse is radiation. Radiation shielding is proportional to mass. The shielded area is inversely proportional to object separation. The magnitude of the total acting impulse is proportional to the object displacement. Therefore, the apparent attractive force acting between the objects is proportional to the magnitude of impulse pressure acting on their surface times the product of their masses divided by their separation ($F_a = P_s m_1 m_2 / d^2$). This is the reality of Newton's gravitational equation. Note that, since the impulse is radiation pressure, the equation must be modified when applied to radiating objects. This equation also applies to the microcosm. Spatial fluid impulse energy transfer is proportional to photon mass divided by target particle mass. Since the total impulse is proportional to surface area and the energy transfer per impulse is inversely proportional to mass which is proportional to volume, the energy transferred by a photon to a proton is about 10^{30} times the energy it would transfer to the earth. This accounts for the strong force and the weak force. Electrostatic force is about 10^8 time gravitational force because the photon transfers 10^4 times more energy to the electron and the electron in turn transfers 10^4 times more of its energy to a typical atom then would a photon. The spatial fluid concept unifies the basic forces!

The concept of innate charge is the product of the apparition of innate attraction. In a fluid universe all forces have absolute magnitude. Charge is

analogous to pressure which is less or more on an absolute scale. Repulsion is nothing more than the resistance to pressure increase. Plus and minus are restored to the designation of direction. This is confirmed by the concentration of electrons in an electrical discharge and the persistence of ball lightning. These concentrations would not occur if electrons had innate charge and repelled each other. Electron pressure is like any other fluid pressure aside from their confinement to material where they are most shielded from photon impulse. This surface confinement is the source of static electricity. Maxwell's equations only refer to the directions of pressure application. The absence of innate charge only changes the reference language applied to electromagnetic phenomena.

The Electrical Theory of Atomic Structure is replaced by the geometry of contiguous proton structures. Neutrons, Positrons, Magnetic Flux Particles and Neutrinos are only Protons, Electrons and Photons with high or opposing directions of spin energy. All of the short lived particle debris from disintegrated protons are unstable subassemblies. The data is unaffected. Only the explanations change. The sequence of most stable 3 dimensional structures which can be assembled from contiguous spherical protons coincides with the sequence of Atomic Weights in The Periodic Table of Elements. Electrons and photons can penetrate and permeate all multiple proton atomic structures. The interstices between contiguous protons emit the radiation pulses which produce the spectral signature and account for radioactivity and fluorescence.

The essence of the concept has been presented. Hopefully it is enough to tweak your interest. Since it involves the universe, it affects everything. Its value lies in its logical validity, the restoration of causality and the conceptual reality it offers for physical phenomena. Among other things that the concept explains are the 2 slit interference pattern, the 3 polarizer paradox, the University of California EPR experimental results, the holographic paradox, Hubble's Constant, the Doppler Shift of rotating galaxies, the source of evolution, sonic luminescence.... All apparent conflicts with valid data are reconcilable.