

# Compression *versus* Attraction

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Earth's Atmospheric Structure challenges the validity of gravitational attraction as a function of molecular mass. Electromagnetic radiation spatial frequency harmonics do not comply with BIG BANG or current theories of spatial structure. No logically conceivable explanations have been offered. Since molecular density varies at every altitude, the isobaric altitude structure of Earth's atmospheric field can only be explained by a radially acting inward compression. This paper presents a logically conceivable explanation consistent with fluid dynamics and available data. The critical keys to the puzzle are: Planck's Energy ( $E = hf$ ), DeBroglies Equation ( $hf = mv^2$ ), the agreement of Quantum Mechanics with Ideal Gas Law and addition of particulate density to Einstein's Energy Equation ( $E = nmv^2$ ) when applied to a gaseous fluid. The unlocking solution is that  $n = f$ ! Planck's Constant ( $h$ ) is revealed as the kinetic energy of a photon. Photon mass is  $h$  divided by the local velocity of light squared.  $h$  adds mass to the Quantum Equations for Dynamic Attributes. Photon energy is transmitted by impulse (Momentum). Photon pressure is impulse per unit area (Energy). Photon volumetric confinement is pressure per unit volume (Spin magnitude). Quantum Mechanics utilizes waveforms to simulate the actual fluid mechanics. Hence it produces correct answers without conception of the actual dynamics. Spatial fluid pressure is exerted by photons. It is quantitated by absolute temperature. Temperature is the reciprocal of the coefficient of volumetric thermal expansion. Spatial mass concentrations are regenerative because they interfere with and radially organize random particle energy. Spatial fluid mass concentrations are the source of Thermodynamic Entropy. Accumulation of mass reduces available surface area within the mass concentration, which initiates electromagnetic radiation emission.

## Introduction

What is attractive force? No explanation has ever been derived or offered. Attractive forces have been cited to explain many causes without explanation of their mechanics or their origin. Science without causality is magical guesswork. This essay provides a logical explanation of the apparition of attraction based on the confirmed action of established aetherial fluid pressure.

Attractive forces cannot account for either the structure of the Earth, the Universe or their material constituents. Fundamentally, force is exerted by transmission of energy from mass to mass. Energy equals  $mv^2$ . Energy defines force. Attraction is an empirical assumption. It is quantified based on the reaction of overtly discernible matter without any causal explanation.

Compression is the source of the apparition of attractive force. Gravitational force is exerted by an overtly undetectable fluid. The fluid has nearly infinite particulate density and particle dimensions are infinitesimal. The pressure of these fundamental particles is temperature. The irresistible force of temperature has not been explained. It is quantitated as the reciprocal of the coefficient of volumetric thermal expansion. Like attractive forces, it is empirically accepted with no reference to a mechanical cause. No explanation is offered as to what causes molecules to separate or coalesce in response to ambient temperature.

## Earth Atmosphere

The structure of the Earth's atmosphere can be explained logically only as the product of compressive force. Molecular pressure is proportional to temperature. Atmospheric pressure

increases log-linearly with altitude. The pressure of each isobaric altitude sphere decreases in linear proportion to increasing spherical surface area. Atmospheric pressure is the quantitation of molecular impulse. Molecular density at every altitude varies with temperature. Therefore, the log-linear pressure gradient cannot be formed as the result of attractive gravitational force acting on molecular mass. The gradient is consistent with containment by external spatial fluid impulse acting radially inward.

## Macro and Micro

Spatial fluid compression explains the containment of Universal structures. The fluid is made up of miniscule mass particles in a state of chaotic motion. Chaotic particle impulse is organized radially inward surrounding mass concentrations. Mass concentrations mutually shield each other from fluid impulse reducing the pressure between them. This produces the apparition of gravitational attraction. Containment pressure acting on immersed mass forms surrounding fields. Particle mass accumulation is regenerative. External pressure confines mass to minimum volume producing the sphericity of material spatial structures.

Spherical mass concentration is limited by the containment pressure magnitude of the surrounding field. When central solar mass pressure can no longer be contained, the star explodes forming a Nova. The nova expands forming a Nebula. As nebular temperature decreases its fragments begin to coalesce. The nebular core mass forms a white dwarf when nebular pressure drops to a containment level. The white dwarf radiation frequency decreases as core temperature drops forming a brown dwarf. Brown dwarf radiation frequency continues to drop

forming a black hole adsorbing surrounding mass. Mass accumulates forming a new sun. This is the solar system cycle.

The same fundamental mechanics extrapolates to galaxies. A galaxy is an immense mass concentration. As local mass concentrations increase to a solar level they are rejected from the galactic core and form surrounding stars. The increasing radiation pressure of the stars separates them from one another around the central galactic core. Likewise, galaxies are separated from each other as a result of the radiation pressure they exert.

Applying the mechanics to the microcosm, reveals the nature of mass and the stable mass increments which form the reality of our overtly detectable world. Overtly detectable matter is formed from molecules. Molecules are formed from atoms. Atoms are formed from electrons. Electrons are formed from photons. All other particles are combinations or fragments of these fundamental mass increments. Since attractive force is an apparition, charge becomes unidirectional. Positive and Negative are only more or less Pressure.

Electromagnetism exemplifies the interaction between molecules, atoms, electrons and photons. Radiated photons are the energy source. Energy is transmitted from particle to particle in proportion to their momentum ratio. A photon transfers four times as much energy to an electron than it does to an atmospheric molecule. Electrons transfer eight times as much energy to atmospheric molecules as do photons. Electrical current is conducted at photon velocity. Photon pressure confines electrons on molecular surfaces. Electrons roll on conductive surfaces which imparts high spin energy to the photons they displace. Lines of magnetic force are formed by the reaction of surrounding photons to emitted spinning photons. From these simple actions all electrical behavior can be derived and explained without resort to attractive force.

Equilibrium confirms chargeless directional mechanics. Energy is transferred from particle to particle. Avogadro found that, at a given temperature and pressure, the same number of different gaseous molecular particles are present in a given volume. The pressure is the summation of constituent particle impulse acting on contained mass. Since the same number of particles of different mass exert the same pressure, particle velocity must vary in inverse proportion to the square root of particle mass. Hence, at specific stable temperature conditions all particles must have the same energy. Therefore, the least massive particle must have the greatest velocity. Momentum is mass times velocity. Energy transfer from particle to particle is unidirectional and proportional to their velocity ratio. Spatial fluid particles are the source of all energy because they have the greatest velocity in a state of equilibrium.

There can be no energy transmission without mass. Planck avoided the violet catastrophe by incorporating his mysterious constant  $h$ . His energy is the number of  $h$ 's per unit time ( $E = hf$ ).  $h$  relates to the local kinetic energy of a fluid particle. Frequency is the number of particles received per unit time.

DeBroglie equated Planck's Energy to Einstein's Energy ( $hf = mv^2$ ). Unfortunately, he failed to recognize that Einstein's Energy is exerted by the number of particles that form its mass. The number of mass particles is equal to Planck's frequency. Frequency is the number of impulses per unit time. The number of mass particles cancels out frequency in DeBroglie's Equation. The equation becomes ( $h = mv^2$ ). This oversight has led to some incorrect and fictitious assumptions.

One assumption was that the Michelson-Morely Experiment determined that space was a void because there was no light velocity change with orbital motion. Wave velocity is unchanged by source velocity! Another fantasy was that energy transmission velocity was limited by solidity. Thermal expansion decreases solidity by reducing mass per unit volume! Molecular wave velocity is proportional to the square root of temperature, which reduces atmospheric solidity. Additional ignored evidence is that wave action can only transpire in a medium of like particles. The color distinction of a prism clearly demonstrates the difference of energy with color. The fact that all colors are radiated at the same velocity, as attested to by simultaneous imagery, mandates the presence of a medium where particle resistance equals particle energy. Newtonian scientific causality restores the pathway to future knowledge.

## Back to Earth

Spatial fluid behavior is confirmed by the structure of the Earth and its surrounding field. Earth is continuously accumulating mass as it orbits the sun. Field pressure focuses spatial fluid energy radially inward. Geologically, temperature increases about 1 degree F per each 94 feet below the surface. Earth is formed by an incompressible liquid surrounded by solid plates which adjust to conform with the inward pressure of its spherical field which is about 14.73 pounds per square inch. Its structural history confirms the continuous accumulation of matter as its physical size increases. The bigger it gets, the greater the amount of energy it must radiate to maintain stable local equilibrium. The increase in energy emitted and received produces global warming. Vulcanism, earthquakes and severe weather are the adjustments required to maintain equilibrium and sphericity. The greater atmospheric compression increases intensity of the Auroras and raises Polar temperatures.

Science must restore the mandate of causal reality to provide conceivable fluid and thermal mechanics. Theories without cause are only assumptions that equate to magical phenomena. Inexplicable attraction forces are manifestations of fluid pressure action. Regenerative chaotic mass accumulation provides the source of energy. Attraction is an effect without cause. Its elimination unites Quantum Mechanics and Newtonian Physics. Valid science becomes conceivable without mystical speculation.