

An OAD LLC Article Quarks and Companies

For the past several years scientists at the Brookhaven National Laboratory have been mimicking conditions of the birth of the universe by using atom smashers. These explosions generate extremely hot and dense bursts of matter and energy that simulate what happened in the first few microseconds of the Big Bang, the creation of our universe.

In ten microseconds subatomic quarks and gluons bounce around randomly creating heat in the trillions of degrees; at least more than 100,000 times hotter than our sun.

Then as the universe expands, it cools, and the quarks and gluons create hadrons that permit attachment to other particles and create multiple “phase transitions”. In cosmic time this phenomenon takes almost forever, approximately ten milliseconds.

New types of matter form in less than a blink of an eye. And these new matters collided and create, in turn, new matter within another blink. Which, in turn, collide and create new matter....

These collisions, in turn, create atomic nuclei and their extremely dense matter (one thimbleful would weigh 300 million tons) are then added to the universes’ quark soup.

When these heavy particles collide they create temperatures higher than 400 trillion degrees, but the diameter of these explosions most often are less than a trillionth of a centimeter in width, as anti-quarks (anti-matter) and their gravitational pulls (black holes) check their expansion. But the amount of explosions is 50 trillionths times a trillionth, which still leaves a lot of room for being in the wrong place at the wrong time.

What do the physics laws of our known universe have to do with business?

Let’s consider that lighter particles - quarks, electrons, protons - are Higher A personalities - independent, self-willed, and resistant to stability. Their power to influence change can be made far more freely and easily than their counterpoint heavier particles. While these lighter particles influence the development or “behavior” of heavier particles, their independence can be unpredictably dangerous and lead to unforeseen results.

On the same hand, ironically, their presence also contributes to additional weight of the mass of heavier particles. Initially the light particles affect the mass. But over time the density or gravitational pull of the mass become so large it cannot be resisted; and the Higher A particles are absorbed without having any effect on the mass.

Let’s call heavy particles Higher D, with its rigid rules of behavior dictated by tradition (gravity). And, to its favor, it creates stability.

But, in time (trillions of years), the heavy mass stability creates an inability to evolve. And its sole purpose then is to suck in energy just to maintain itself.

Eventually, the mass’s tremendous weight (stability) cannot sustain itself and implodes – sucking in huge parts of the universe and leaving a vacuum. The universe, like people, hates vacuums. So the edges of the universe not affected by the implosion gradually creep in and create yet another cycle of expansion whereby the lighter (Higher A) particles are free for another day, or millisecond.

The cosmos’ existence of both light and heavy matter is necessary to create new behaviors and rules. A universe composed of only light matter would create unending chaos, as every light particle has its own agenda. A universe of only heavy matter would create stability, has only one agenda (survival), and resists change. Thank goodness they collide with each other and create a new form of universe. Just as long as we’re not in the neighborhood of the collision.