***Antigravity***

**Internal Work**

**On Internal Work and Antigravity**
T.E. Bearden

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With Newton, Faraday, and Maxwell

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Internal work is an eerie kind of thing! There are several things involved. I will try to discuss one or two briefly.

First, Faraday believed fervently that his lines of force existed as taut physical strings (everyone at the time, Faraday included, believed in a MATERIAL ether). So he thought that EM disturbances were simply the disturbances of these taut strings. That was then a transverse string wave.

So to Faraday, "EM shaking" in the ether was just these physical lines of force shaking (like a transverse twanging string wave). NOTE that he just assumed away the body of any string holder to provide the tensile forces on that string! In short, without realizing it he threw away Newton's third law reaction forces from his material strings.

Maxwell stated point blank that he would read no other EM theory until he had thoroughly studied Faraday's work. He also wrote a paper on those physical lines of force. He mathematized them with a tube of force concept.

But he also ASSUMED away the body of the mysterious missing string holder, and also thereby discarded Newton's third law reaction from his electrodynamic theory. The third law is STILL missing from the theory today!

When electrodynamicists do an experiment, say by introducing some EM energy to be absorbed, etc., the third law recoil force and energy DOES appear. It is GENERATED in their experiment, but the cause for it does not appear in their model! So they piously raise their eyes to heaven and say, "Oh, yes, we know that will occur. That's due to Newton's third law."

Well, Newton's third law is a DESCRIPTION of what happens. It is not the CAUSE of anything, being instead of a cause, an EFFECT.

In short, there never were any twanging strings in the vacuum ether, and Faraday's lines of force are not even lines of force! THERE ARE NO FORCES IN THE VACUUM.

In the first place, force is not the primary CAUSE of acceleration of a mass! Force is not SEPARATE from mass. Rigorously, the definition of force is F is identically d/dt (mv). As can be seen, mass is a COMPONENT of force. In the vacuum, all that exists are changes in the vacuum potential. In other words, you get gradients of scalar potential and swirls which we identify as vector potentials or currents of potential.

There is no E-field in the vacuum, for example, in the sense presently used.

Electrodynamics assumes that at every point in the vacuum, there exists:

(1) a point unit north pole,

(2) a point coulomb of positive electrical charge, and

(3) a point unit mass.

Electrodynamics theory then describes how those assumed point entities move and react. THAT's what the equations actually describe, the movements of those three entities. They do NOT prescribe what exists in the vacuum, WITHOUT that observable matter being there!

Classical electrodynamics still completely and erroneously assumes the MATERIAL ETHER. You would think they would have got the message since the Michelson Morley experiment in 1888 destroyed the MATERIAL ether. All that happened was that one day the electrodynamicists said, "Okay, so there's no ether! Okay, we are not using one!" And they never changed a cotton picking equation!

What really happens with a scalar potential at a point, e.g., is that it increases or decreases. Look at the points in the neighborhood around that point of interest.

If the potential increases at the focal point, then it has not yet increased at the points around it at an infinitesimal distance from it. So it has a set of radial gradients all around, with respect to the ambient vacuum potential points in its neighborhood.

Well, each one of those radial gradients is (erroneously) called a force in classical EM. But for each radial there is an opposite and equal radial. Try increasing or decreasing the potential at that point any way you wish; you still produce a set of equal and opposite (bidirectional) EM "forces".

The point is, the waves are always created as PAIRS of equal and opposite waves. It's more like a "rhythmic squeeze" wave than anything else. In the real world, the antiwave portion is actually a phase conjugate, and superposed spatially upon the wave, in each biwave pair.

That's how Whittaker came to show that any scalar potential is a set of biwave pairs. And in each pair, there is a wave and its antiwave (true phase conjugate). But that means that this doesn't generate any NET force!

Voila! It contains excess or minus energy at that point, but it did not translate anything. That increase in the local energy density of vacuum spacetime is ruthlessly a CURVATURE of local ST, in the GR sense.

So what is produced in the vacuum is a GRAVITATIONAL wave, not an EM wave at all! This is consistent with modern gauge theory, when one thinks long enough about it, because gauge theory regards gravity itself as simply the "restoration of symmetry" when a force of any kind is formed.

In other words, Sakharov's hypothesis is true; gravity is not a separate field in the sense of Maxwell, but is always made from other fields. In fact, it is just NEWTON's THIRD LAW revealing itself, particularly in electrodynamics!

Now let's look a little deeper. Suppose we have this harmonic set of wave/antiwave pairs (this scalar potential) coming onto an atom of matter.

Well, the time-forward wave halves get stripped off and interact with the time-forward part of the atom (i.e., the electron shells).

The atom can be regarded as a set of dynamic dipoles, where a positive charge in the nucleus and a negative charge in the electron shells comprise one of the dynamic dipoles.

The dipole is a "splitter" of the G-wave incoming. It splits that thing into two EM waves momentarily.

The forward time wave half interacts with an electron in the electron shells, and the reversed time wave half interacts with the positive charge end of the dipole down in the nucleus.

That generates Newton's third law recoil of the nucleus, which is admitted but usually ignored in electrodynamics.

Point is, for all the energy interactions ongoing in the electron shells, there are equal and opposite EM energy interactions ongoing in the nuclei. We ignore the latter.

NOW to the inner work. As you can see, when you do some work on the atom with EM radiation, you simultaneously do some equal and opposite inner work in the nucleus. (One can use this to get antigravity and free energy and all sorts of goodies).

Now in nonlinear optics, one interacts that G-wave (i.e., with its EM biwave pairs) as it is coming in, by nonlinear EM wave interactions such as four-wave mixing. The time-reversed wave half doesn't get to reach the nucleus; instead, it is flipped right back toward where it came from. And along with it goes up to all the energy in any additional pump waves on the atom.

So a phase conjugate mirror, no matter how powerfully pumped, DOES NOT RECOIL when it emits the powerfully amplified phase conjugate replica wave!

The reason is that the MECHANISM generating Newton's third law recoil of the nuclei, did not happen because the cause (the incoming "missing" time-reversed wave half) was redirected before it reached the nucleus.

Now that's an interesting way to intercept the "cause" of internal work, and redirect and use it, BEFORE it comes into its causative interaction to generate internal work.

Now if you continue to do the POSITIVE work half (in the Sweet device, the work done in the load), and in fact increase the positive work half, while simultaneously rejecting the excess negative half, you have a missing "Newton's third law" reaction for the excess positive work being done in the load. That means you have a missing restoration of symmetry, for the excess positive power being done in the load.

That means you have just exactly that much ANTIGRAVITY formed. That is, if restoring symmetry is what exhibiting gravitational force is, then DENYING the restoration of symmetry is what dis-exhibiting (denying) so much gravitational force is.

So by denying the restoration of symmetry for extra power in the load, you create ANTIGRAVITY by just that amount of power.

Let us reason together. Gravitational energy is already known to be (embarrassingly) negative energy. Well, what is "negative energy" in layman's terms? It's just energy that was never there, but does work against you. Again, it's just our old friend Newton's third law, hiding in disguise.

So we get gravity when we let the time-reversed half of the EM waves interact with atomic nuclei.

We get an absence of gravity when those waves come in but the antiwaves do not reach the nucleus and do not interact with the nucleus.

READ THAT AGAIN, THAT'S PURE MAGIC!

So to get antigravity, you bring in some EXCESS phase conjugate (time-reversed) EM energy, together with some excess energy (the other half accompanying it, since you bring them in, in pairs. You let the time-forward half go to the external circuit and the load, and do excess work in the load.

But you do not let the excess part of the incoming time-reversed energy reach the nucleus. Instead, you multiwave-interact with it before it reaches the nuclei. You send it back on its way. So what does that do?

Well, if you bring in extra gravitational energy (cause), and then REPEL it, WHILE LETTING ITS INCOMING FORWARD-TIME MATCHING ENERGY BE DIVERTED TO THE LOAD AND DO WORK IN THE LOAD, that's the exact thing as creating that much ANTIGRAVITATIONAL energy.

In short, that's how you produce antigravity. Or, if you wish, that's how you get a unilateral thrust.

Just point that antigravity thrust in the correct direction, and the unilateral antigravity thrust force will occur in that direction.

For propulsion, then you fly it like a helicopter. With thrust upward, you lift straight up or hover, or lower down gently. By angling the direction to have a forward component, you also move forward while hovering, climbing, lowering, etc..

That was the gist of my theory of gravitation that I got Sparky Sweet to test with the vacuum triode amplifier. I had estimated that it would levitate at about 1500 watts.

But one would get magnetic charges (monopoles) deposited in the barium ferrite magnets as one increased the power above the nominal 500 watts design. So I warned him not to go above 1,000 watts, because the magnets might explode and kill him. (They go off like hand grenades when the yield point is reached, and Sparky did explode a few magnets at various times this way!)

Anyway, he increased the load in 100 watt increments, to 1,000 watts, and that thing reduced its weight on the bench nicely and smoothly by 90 percent. If the experiment had failed, I would have had to go back to the drawing board. But it worked beautifully.

So the gist of the internal work is that you directly involve:

(1) Newton's third law being added back to classical EM,

(2) turning EM into G and vice versa,

(3) putting Faraday's missing string holder back in there,

(4) increasing the potential cause for internal work, then rerouting it back out before it interacts in the nucleus, and

(5) finding Maxwell's missing "tensioning agent" in the vacuum.

Maxwell actually pointed out, carefully, that his theory was not finished because he had assumed this stress in the ether, but had not been able to account for it, and therefore further work had to be done.

Heaviside also warned that the present EM theory was just first order, and suitable for first order effects, but was not to be considered as finished.

In his opinion, initially the engineers would have sufficient trouble learning that first order theory and applying it. So the refinement of the theory could come later.

Hope this is a little clearer. - Tom Bearden

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