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# Gravitation As A Two-Part Process

by Alastair Black
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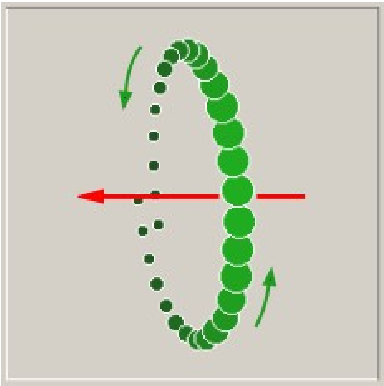
## ELECTROMAGNETIC EMISSION

It is well-known that a conductor, when coiled and electrified, makes a temporary magnetic field. For example, we have a battery connected across a coil which is made up of eighty turns of 28 gauge wire with a coil diameter of two inches. We supply exactly 0.2 Amps of current. The magnetic energy in and around the coil will be such-and-such Gauss. It doesn't matter how much, we can look it up later. What does matter is that when current is flowing, there are electrons moving through the coil and they are fairly evenly spaced. (Measure the current at any point in a conductor and the current will be the same.) And any changes to the coil or its current will have known effects.

If we cut the number of turns of the coil in half, with the same diameter and current, the magnetic energy that comes out will be cut in half. Exactly half. If we cut the diameter of the coils in half, with the original number of turns and current, we cut the magnetic energy in half. Exactly half. The same goes for the current: if the current is cut in half, with the original number of turns and the original diameter, the magnetic energy is cut exactly in half.

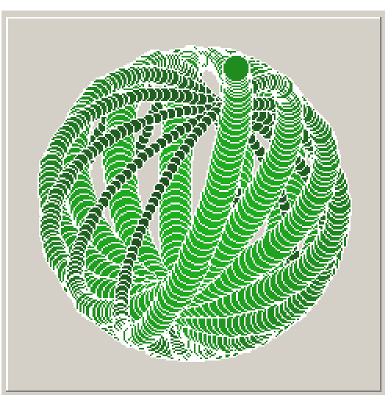
There is a simple reason for this. In each modification, the number of electrons in motion is cut in half. Obviously, the number of coils determines the space for electrons in motion. Also, simple plane geometry shows that half the diameter will leave half the space for electrons in motion. The same goes for current. The very definition of ‘current’ implies half current actually is half the number of electrons in motion.



Now do a mental exercise of reducing the coil diameter to the diameter of the electron orbit in an atom of Hydrogen. We realize that there is still some energy, *not zero*, emitted by the electron in motion.

In fact, the electrons moving in a conductor do all the work themselves. The conductor is merely a conduit. If we could train the electrons to move in the path of the coil without the coil itself, then the magnetic field would still show itself. The electrons in motion are the important factor; the conductor is merely a framework for shaping the flow of electrons. Ergo, the single electron circling a Hydrogen atom’s proton should produce the same effect as a single loop of the ‘coil’.

There is something peculiar about the electron’s orbit. Rutherford's work tells us that a Hydrogen atom has a solitary electron orbiting a solitary proton. Since then we have learned that the electron's orbit has a bias which makes the electron path appear as a ‘shell’ around the nucleus.

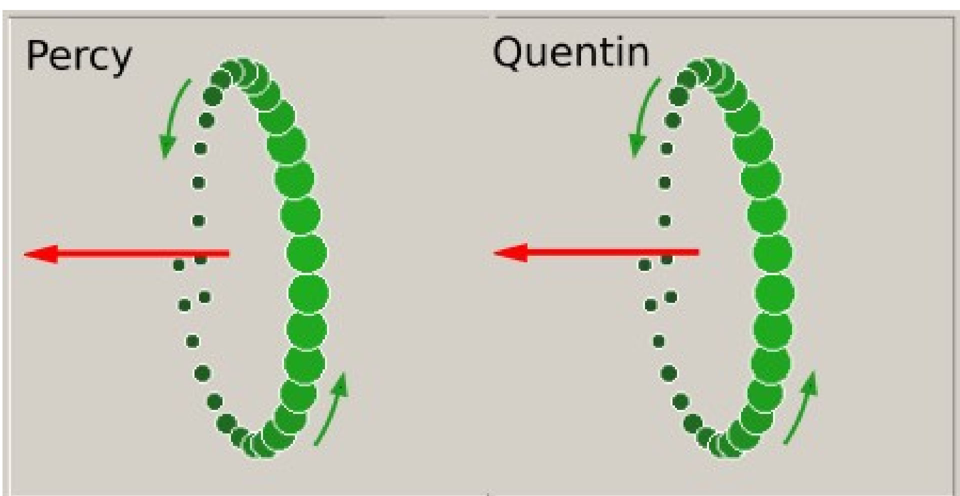


To understand why this shell is formed, we can thank Sir Isaac Newton for coming up with his third ‘law of motion’. The path of the electron skews to the right ever so slightly; the electron is continually changing its plane of rotation. There must be something pushing it off course. I propose that the skew is a reaction to electromagnetic energy being emitted at right angles to the (constantly changing) plane of rotation.

Energy is being squirted out of the atom in an ever-changing direction. This action has a reaction; pushing the electron in an ever-changing direction opposite the beam of energy. What do we think will be the result of the electron being pushed around? The rest of the atom follows it, trying to maintain equilibrium. The nucleus of a Hydrogen atom weighs about 2,000 times more than the weight of its electron. So the nucleus will 'jiggle' about two thousand times less than the electron. And as the proton jiggles in every direction there is, the average overall movement over time is actually zero. (Soldiers marching back and forth on sentry duty don't go anywhere, but there is a lot of pacing).

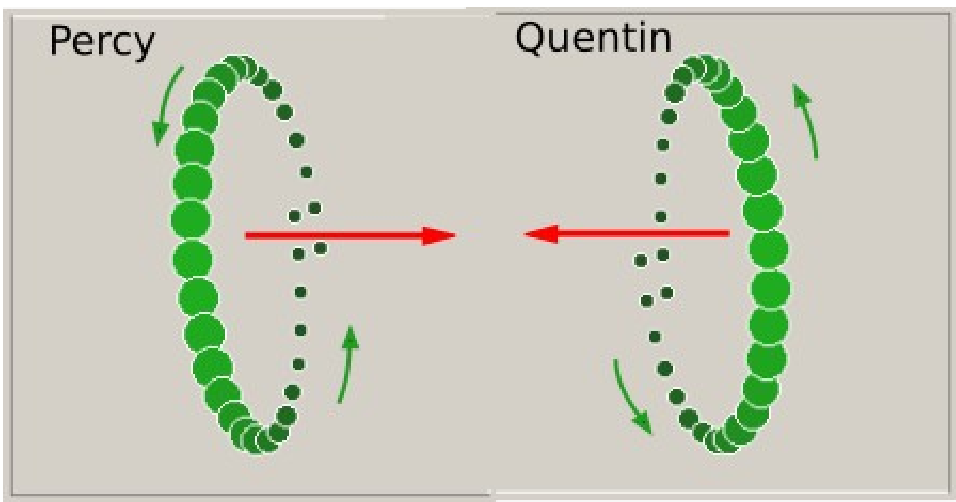
## ELECTROMAGNETIC RECEPTION

So much for the emitter side of things. What about the receiver parts? Our jiggling Hydrogen atom is not alone in the universe. There is a myriad of other atoms bombarding it with their electromagnetic radiation. Let's just consider two atoms, one over here (called Percy) and another over there (called Quentin). The diagram below shows both Percy and Quentin emitting their radiation to their left.




Quentin's radiation comes in and makes it *easier* for Percy's little atomic motor to produce radiation going out to Percy's left. Super. That means Percy is a little more efficient. Percy's momentary abundance of energy tends to push its electron further than usual; which drags the nucleus along with it (though not very far). Which way? Towards the incoming radiation from Quentin. But the most important part is that Percy's nucleus will end up **a little closer to Quentin**.

In the next moment in time, Quentin will be pointing somewhere else. Percy is precessing, too. When Quentin goes through a complete cycle, it will again point at Percy. What if this time Percy is pushing out its tiny bit of energy towards Quentin? Ordinarily, one might assume that Percy gets pushed away. But that is not correct.




When Percy is radiating to the right, towards Quentin, the radiation coming in from Quentin *interferes* with Percy's atomic motor. It is more difficult for Percy to emit its radiation. Percy is less efficient, and pushes the nucleus not as far as usual. Which way? To the left; opposite Percy’s emission. That means Percy’s nucleus is pushed **not as far away from Quentin as usual**. Just like before, the most important part is that, on average, Percy's nucleus will end up a little closer to Quentin. So gravitational attraction works to push one item toward another no matter which way the 'tractor' is going. This explains why gravity always pushes one item toward another and it never pushes ‘away’.

There is another tantalizing tidbit we can glean from these diagrams. From Percy’s point of view, Quentin’s constantly moving beam of energy cannot be felt unless Percy is exactly abeam (no pun intended) of Quentin. At the rate of Quentin’s precession, Percy will experience a ‘blip’ of energy. Do you think this may be what Dr. Max Planck referred to as **‘Quanta’**?

## RAMIFICATIONS

### *Einstein and light*

The 1919 Eddington experiment was hailed as proof that gravity bends light. Eddington was no slouch as a physicist – he was the Director of *The Royal Society* at the time. He took his camera and sailed to the South Pacific, where he would get a good view of a total eclipse. At the time of the eclipse, the Hyades Cluster was known to be on the far side if the sun from us, where it could not be seen. The photograph he took showed clearly that the Hyades Cluster was visible at the edge of the sun’s disc. This meant that the light from the Hyades Cluster was ‘bent’ around the sun.

There are, however, no proton/electron pairs in electromagnetic energy. But if gravity is (as I assert) caused by electrons in motion about protons, then electromagnetic energy cannot be diverted by gravity. If you would like an alternative explanation of light rays from the Hyades Cluster bending around our sun, try the following. The sun emits a huge amount of electromagnetic energy. That energy is very dense. The light from the Hyades is not dense at all by the time it passes the sun. That difference in energy density may refract the light from the Hyades similar to a pencil in a glass of water.

I propose an experiment to test this. A 10 milliWatt laser is aimed across a ten meter space onto a quad cell. About 8,000 Watts of stage lights are aimed perpendicular to the laser beam. If the beam on the quad cell moves when the stage lights are covered or uncovered, then refraction is the proper conclusion to draw from Eddington's experiment.

Take refraction to extremes, as in the interior of a Black Hole. The more dense the Black Hole, the more energy from the interior is refracted back into the interior. So less energy, which would escape from a normal sun, escapes from a Black Hole. This will make Black Holes less predatory than we once thought, as masses outside the Black Hole will feel less energy coming in. And it is energy coming in to an object which generates the gravitational push toward the source of that energy.

As the energy leaving a Black Hole reduces to zero, the energy refracted into the interior increases to maximum. This situation will leave no exhaust for heat buildup. That would appear to make a Black Hole go Nova.

### *Dark Matter*

Fritz Zwicky, an astronomer at Cal Tech made many careful observations of galactic masses. Shortly thereafter, Vera Rubin collected a lot of data concerning movement of the stars in the Andromeda Galaxy. All this data gathering and analysis thereof found that the outermost stars moved faster than the innermost ones. This seemed opposite the expectation; as in our solar system, the outermost planets orbit slower than the innermost ones. It led to a belief that there must be something else in those galaxies which would account for the way the stars moved, given their mass. The ‘something else’ was, of course, undetected and unknown. So it was given the moniker “Dark Matter”.

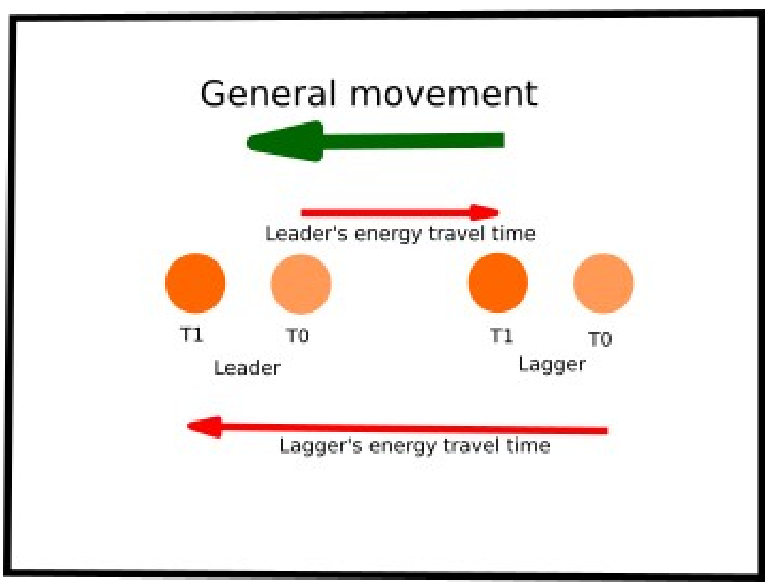
All this analysis relied on the premise that gravitational mass and inertial mass were equal. It was also a basic tenet of Einstein's General Theory of relativity. But what if gravitational mass and inertial mass were different? The resistance to acceleration derived from an object's mass would be different from the motive force of a body due to gravity.

If my theory of gravity is correct, then in any solid body (mass), the Proton/Electron pairs contain the ‘engine’ which accelerates the body toward an external source of electromagnetic energy. The Proton/Electron pairs are the body's “Gravitational Mass”. The Neutrons are merely ‘baggage’. But to move a body, you move its entire mass (the Proton/Electron pairs and the Neutrons). That is its “Inertial Mass”. One can easily see that the Gravitational Mass of a body is not equal to its Inertial Mass. In fact, the ratio is:

$$\frac{\text{Protons}}{\text{Protons + Neutrons}}$$

Then, given that Gravitational Mass and Inertial Mass are different (except in pure Hydrogen), performing a new analysis of the data collected by Zwicki, Rubin et al may reveal that Dark Matter does not exist, and the stars are all moving predictably, given that their acceleration due to gravity is not necessarily identical to acceleration calculated from their masses alone.

Besides that, there is the issue of *leading* and *lagging* in a mass of stars going in the same direction. Assuming a circular galaxy where the majority of the stars rotate counter-clockwise (as seen from ‘Galactic North’), a *leader* will accelerate a *lagger* more than a lagger will decelerate its leader. This is because the lagger’s energy output takes longer to get to the leader than the leader’s energy takes to arrive at the lagger.




Sir Isaac’s square of the distance divisor shows us that the gravitation differential might be quite large. And the further the leader and lagger are away from the galactic center, the greater this effect will be felt.

### *Going Further*

Several other items may benefit from reviewing previously compiled data. For instance, the *Hafele-Keating* experiment used two passenger aircraft with cesium clocks as passengers. A third cesium clock at a ground station was used as a reference clock. When the aircraft were flown in East-West and West-East directions around the globe it seemed to show that time was affected by one's velocity. I believe that their data actually shows the rotation of the planet's molten core, not rubberbanding of time.

Also, I hope that the LIGO people are not offended when they find that their sensitive, expensive and very well-made apparatus does not measure "Gravity Waves". It does, however, accurately measure the 'hop' our planet makes toward distant colliding Black Holes. That is not the same thing; although the end result is identical.