# THE MAGNETIC FIELD EXPLAINED, USING MCMAHON FIELD THEORY (2010)

Mr Casey Ray McMahon

caseyraymcmahon@yahoo.com.au

## ABSTRACT

Here, I use the concepts of the McMahon field theory (2010) [1] to explain physically what the magnetic field is, how it arises, what it is made of and why we observe it. Other papers I have read explain the magnetic field as vectors only, in mathematical terms, not physical terms. Thus, I wanted a physical explanation of the magnetic field. This paper offers a physical explanation of what the magnetic field is, based on McMahon field theory (2010).

## Keywords

Magnetic field, Relativity, Time dilation, Length contraction, Einstein, flux, ghost particle, McMahon field theory, McMahon, Magnet, Magnetism, Energy, Mass
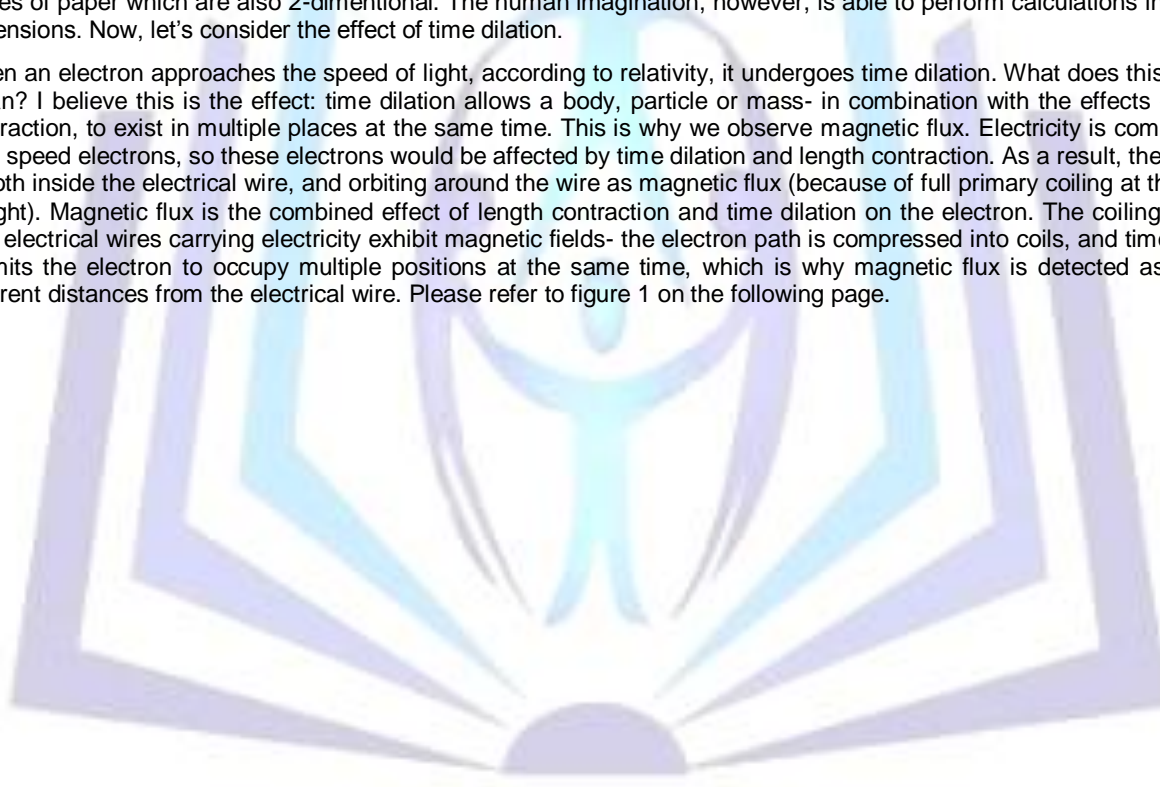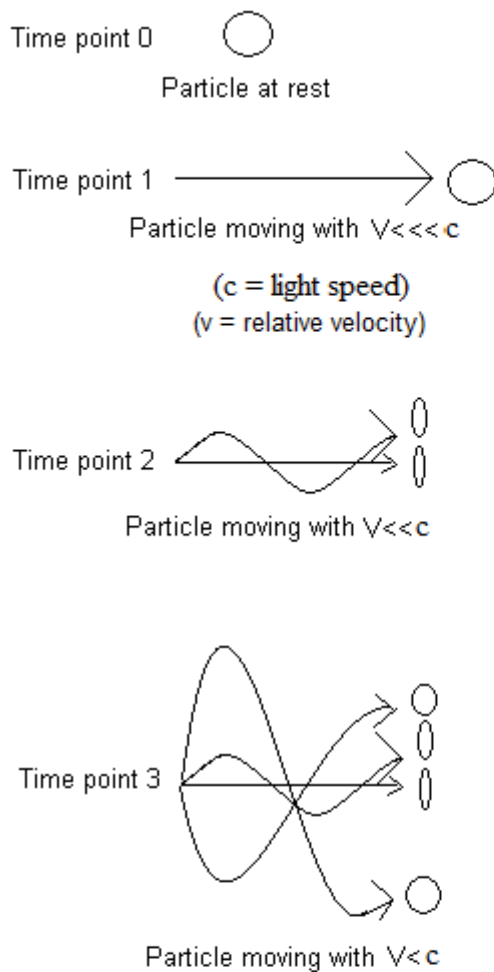
## THEORY

First, allow me to present a new understanding of energy, as already presented in McMahon field theory: Theoretical unification of relativity and quantum physics, thus methods to generate gravity and time. (2010) [1]. I shall use an extract from McMahon, C.R. (2013) Generating Gravity and time. The general science journal [3], to do this.

"This theory begins explaining the nature of light using an example of electrons moving through an electrical wire. Since the velocity of these electrons can be considered as at or near the speed of light, we can assume that they are affected by both time dilation and length contraction, effects predicted by Albert Einstein's famous theory of relativity.

Let's perform a thought experiment: Let's imagine a stretched out spring. Let the straight stretched out spring represent the path of electrons moving in an electrical wire. Now, since length contraction occurs because of relativity, the electron path is affected. As a result, the straight line path of the electron is compressed. This is the same as allowing a spring to begin to recoil. As a result, the straight line path of the electron begins to become coiled. I call this primary coiling. This is the effect length contraction has on mass as is approaches the speed of light and is dilated by length contraction. When a particle such as an electron reaches the speed of light, it becomes fully coiled or fully compressed, and Einsteins length contraction and time dilation equations become equal to zero and "undefined". This particle, now moves as a circle at the speed of light in the same direction it was before. If this particle tries to move faster still, it experiences secondary coiling. Ie: the coil coils upon itself, becoming a secondary coil. This is why energy is observed on an Oscilloscope as waves: we are simply looking at a side on view of what are actually 3-dimentional coiled coils or secondary coils. Waves are not simply 2 dimensional; rather, they are 3 dimensional secondary coils. It was easy for scientists of the past to assume waves were 2 dimensional in nature, as the dimensional calculations and drawings for relativity were carried out on flat pieces of paper which are also 2-dimentional. The human imagination, however, is able to perform calculations in multiple dimensions. Now, let's consider the effect of time dilation.

When an electron approaches the speed of light, according to relativity, it undergoes time dilation. What does this actually mean? I believe this is the effect: time dilation allows a body, particle or mass- in combination with the effects of length contraction, to exist in multiple places at the same time. This is why we observe magnetic flux. Electricity is composed of high speed electrons, so these electrons would be affected by time dilation and length contraction. As a result, the electron is both inside the electrical wire, and orbiting around the wire as magnetic flux (because of full primary coiling at the speed of light). Magnetic flux is the combined effect of length contraction and time dilation on the electron. The coiling effect is why electrical wires carrying electricity exhibit magnetic fields- the electron path is compressed into coils, and time dilation permits the electron to occupy multiple positions at the same time, which is why magnetic flux is detected as coils at different distances from the electrical wire. Please refer to figure 1 on the following page.

Time point 0 — Particle at rest

Time point 1 — Particle moving with V<<<c

(c = light speed)
(v = relative velocity)

Time point 2 — Particle moving with V<<c

Time point 3 — Particle moving with V<c

Arrow = path particle
has taken

Einsteins length contraction and time dilation equations take effect at time point 2, when the coiling effect starts. Time dilation allows the electron to exist in multiple places at the same time, so here we see the electron in two places at once. The electron on the original particle path appears very compressed, because the space it occupies on its straight line path appears compressed due to length contraction. However the other position the electron now also occupies also experiences length contraction, but it appears less compressed because its path coils.

As the particle moves faster, it appears in more coil orbitals at the same time, rotating around the original particle, and further from the original particle. The bigger the coiled path, the less compressed the particle appears in that coiled path.

This is why the mass of the particle appears to be increasing mathemathematically according to Einsteins relativity theory- we are simply mathematically adding the mass in all the positions the particle occupies. The particle mass has not actually changed, but because it exists in more than one place at a time, mathematically it appears to be gaining mass as it approaches the speed of light.

This is also why we observe magnetic flux around wires carrying electrons which move close to the speed of light.

**Figure 1: particle relativity- Taken from the McMahon field theory (2010) [1]:** What we observe as relative stationary observers of a particle as it travels faster.

However- the McMahon field theory goes on to explain much more, including the electromagnetic spectrum- hence light, which I will briefly cover now. Refer to figure 2 below:
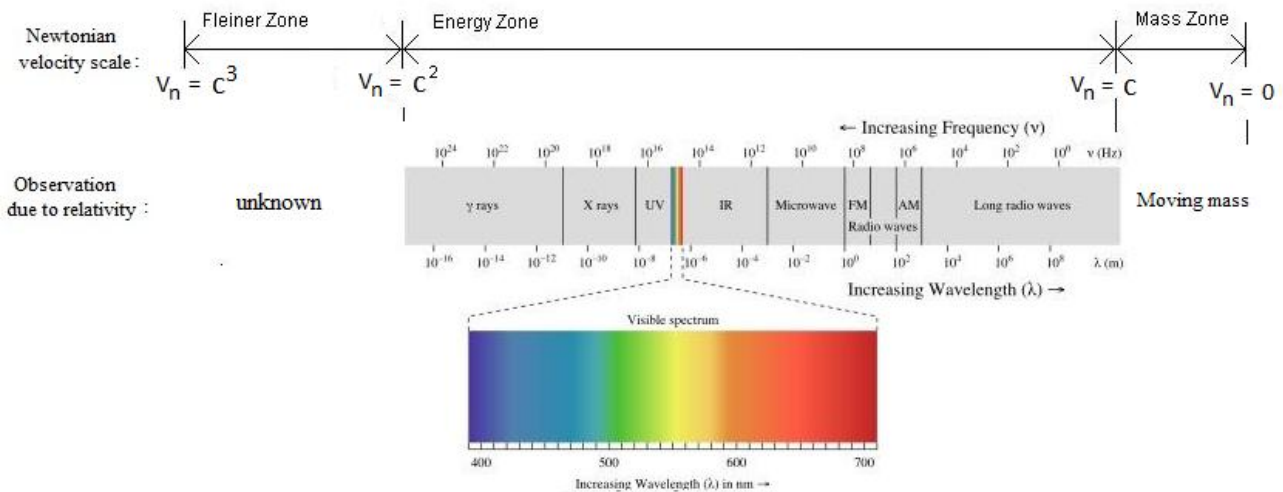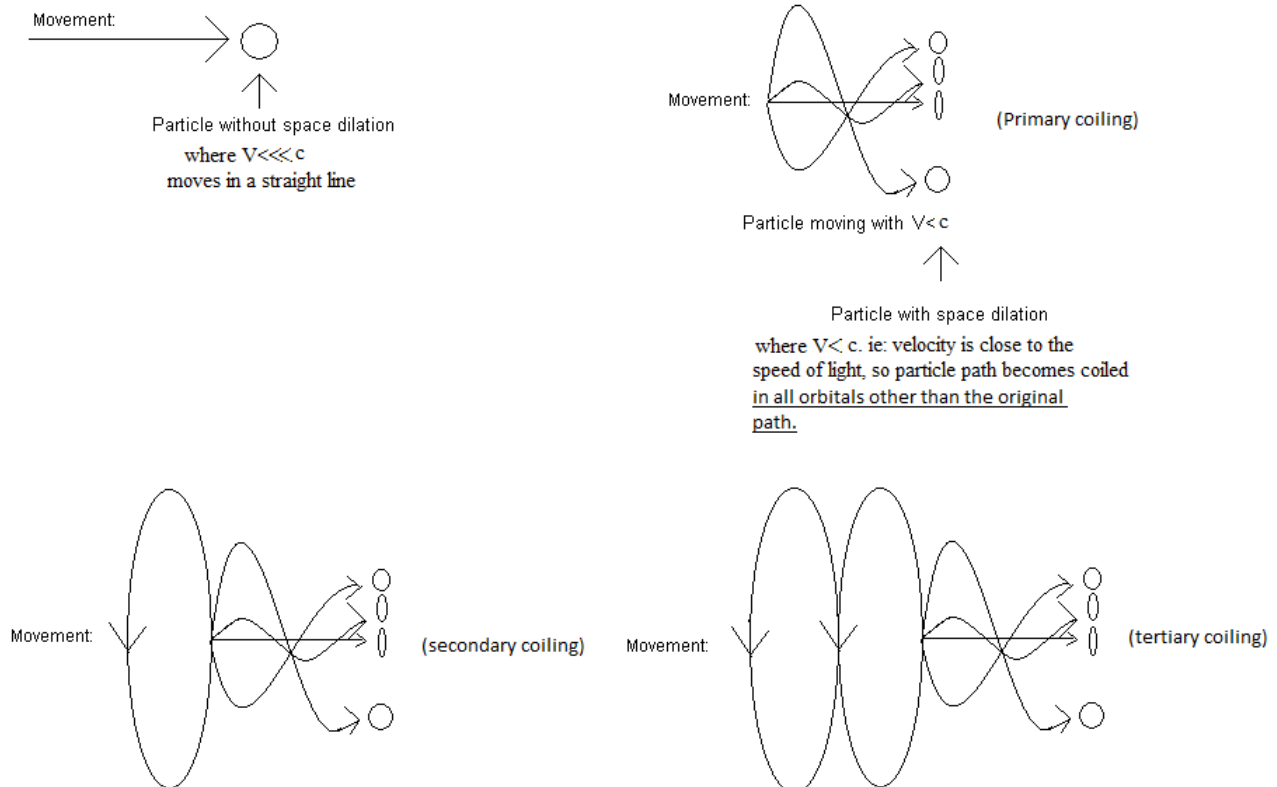
**Figure 2: How an electron is observed at different Newtonian speeds, modified from the McMahon field theory (2010)[1]**

Here, we see that as an electron moves with increasing speed according to Newtonian physics (although the speed we observe is dilated back to that of light because of relativity as in figure 4) and becomes a coil because of relativity, as the electron speed is increasingly dilated back to light it is observed as different types of energy. This is because the electron becomes more coiled (more velocity dilation) as it tries to move faster, so we say that the frequency increases and wavelength decreases. In this diagram, let the value of true, un-dilated Newtonian velocity due to relativity be Vn as in figure 4, and let the velocity of light be equal to c. I believe that electrons are on the boarder of mass and energy, so in the diagram above electricity would be at the point where Vn=c. If the electrons in electricity tried to move faster, they would be compressed further into a secondary coil to become long radio waves, then AM radio waves, then FM radio waves, then microwaves, then Infra-red (IR), then X-rays, then y-rays. Hence, the electromagnetic spectrum is nothing more than an electron dilated by different magnitudes of relativity. Other particles, such as protons and neutrons, will also have their own spectrums, which may be different or similar to that of the electron.

From Figure 2, we see that if electricity or electrons in an electrical wire tried to move faster, the electrons path would be compressed further, making it coil upon itself again creating secondary coiling or a coiled coil path. Hence it would be further affected by length contraction. As a result, the electron will be observed as different forms of energy. In the figure above, we see that an electron is considered as mass when it has an undilated velocity or Newtonian velocity between 0 and c. If an electron tries to travel faster than this, it enters the energy zone, where the electron path becomes fully compressed and moves as a full primary coil or circle which undergoes secondary coiling or coils upon itself. A particle moving as energy or a secondary coil has an un-dilated velocity or Newtonian velocity range between c and $c^2$. In this range, the particle now experiences secondary coiling, so the coil now coils upon itself. Figure 3, taken from the McMahon field theory (2010), also explains what happens if an electron tries to move faster than $C^2$: The secondary coiled or coiled coil path becomes overly dilated, and the length contraction effect becomes so great that the particle now undergoes tertiary coiling- ie it becomes a coiled coil coil. As a result, because of excess coiling the particle becomes undetectable or unidentifiable. These undetectable states are what are known as dark matter and/or dark energy. See figure 3.

Movement: →

Particle without space dilation
where V<<< c
moves in a straight line

Movement: (Primary coiling)

Particle moving with V< c

Particle with space dilation
where V< c. ie: velocity is close to the
speed of light, so particle path becomes coiled
in all orbitals other than the original
path.

Movement: (secondary coiling)

Movement: (tertiary coiling)

From the paper: **McMahon, C.R. (2013)** *"Fine structure constant solved and new relativity equations– Based on McMahon field theory"*, we are told that Einsteins time dilation and length contraction effects stop occuring and reach their maximum effect at a velocity of 299,792,457.894 m/s. Thus once a particle reaches the speed of light, the mass of the particle system mathematically is the same as at the 299,792,457.894 m/s velocity. Also, if the particle tries to move faster than light, the entire system then coils upon itself, something I call secondary coiling. This prevents us from ever seeing velocities greater than light. This is what energy is- particles moving as coiled coils. When secondary coiling is complete- and tertiary coiling begins- this is the state of Fleiner.

**Figure 3: From the McMahon field theory (2010) [1].** The actual affect Einsteins relativity theory has on the movement of a particle, causing it to first appear as mass during primary coiling, then energy during secondary coiling, and Fleiner during tertiary coiling, during which it becomes dark matter or dark energy. Einstein was unaware of this.

Now, we must consider conventional science of the current day. Conventional oscilloscopes are used for energy only. Therefore, the "waves" we see on oscilloscopes are in fact, the side views of secondary coils and higher degrees of coiling. Once full primary coiling is achieved, the fully compressed primary coil remains as it is, but with more momentum it begins to coil upon itself, which is secondary coiling. Thus, "wavelength" and "frequency" according to the science of this day are measurements from the reference point where a full primary coil forms.

Lets consider McMahon field theory (2010) [1]. From the McMahon field theory, we realize that magnetic flux arises due to the length contraction and time dilation of the electron. We observe this flux differently depending on the Newtonian velocity of the electron (ie: the electromagnetic spectrum in figure 2). Keep in mind that relativity prevents observers from measuring the true velocity (Newtonian velocity) of the electron- relativity dilates velocities greater than light back down to the speed of light. Refer to figure 4 below.
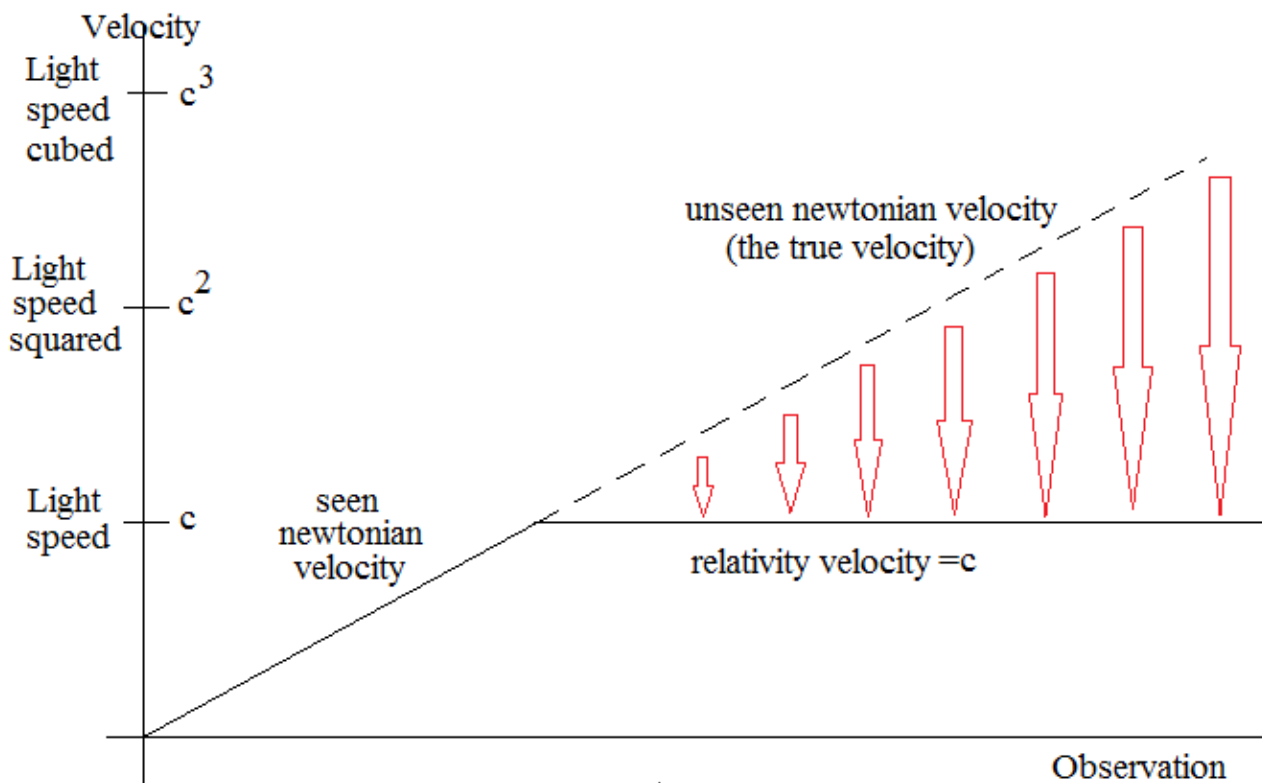
**Figure 4: From the McMahon field theory (2010) [1].** The dilation of the true velocity or Newtonian velocity by relativity. Here, we see that the dotted line represents the true velocity of particles travelling faster than the speed of light, but relativity dilates this velocity down to the speed of light which coils the path of the particle, so observers don't ever see particles travelling faster than light. The degree of velocity dilation is represented by the red arrows. Hence, the solid lines represent that which is seen, but the dotted line, which is the true velocity above light, is unseen due to dilation by relativity.

Now, figures 1 and 3 depict the length contraction effect on the electron, but the length contraction effect occurs simultaneously with the time dilation effect, which causes the electron to exist in multiple places along-side itself at the same time. As a result, as a particle approaches the speed of light, the original electron remains in its original linear position, but it also exists tangentially to itself, which rotates around its original self.

From figure 5 in A), we see a stationary electron in a wire. If this electron moves to the other end of the wire at speeds much less than N, or C for us on Earth, the particle obeys the laws of Newtonian Physics. In B), we see our electron now moves through the wire with a speed of c, so as discussed earlier it undergoes full primary coiling, which results in the appearance of a magnetic field (the magnetic field is the primary coiling) so it obeys the laws of relativity. From Einstein, when the electron moves at a speed where V=c, t'= undefined (time dilation = undefined) and s'= 0 (length compressed to zero). This means that to us, the particle no longer experiences time as in Newtonian physics, and now moves as a full primary coil or circle which propagates along with a speed equal to c. Because t'=undefined, the electron is able to be in more than one place at a time. Because s'=0, the particle is seen to move as a full primary coil or circle, which moves along the wire, always with a relative speed equal to c. this means that the electron is both inside the wire, and orbiting around the wire in multiple orbits multiple distances from the wire at the same time.

These "ghost or flux particles" which are all one particle that exist in different places at the same time, are responsible for the strange observations and theories made in quantum physics. These theories arise from the fact that ghost particles appear in their experiments involving high speed particles, such as the double slit experiment, and physicists cannot explain what they observe.
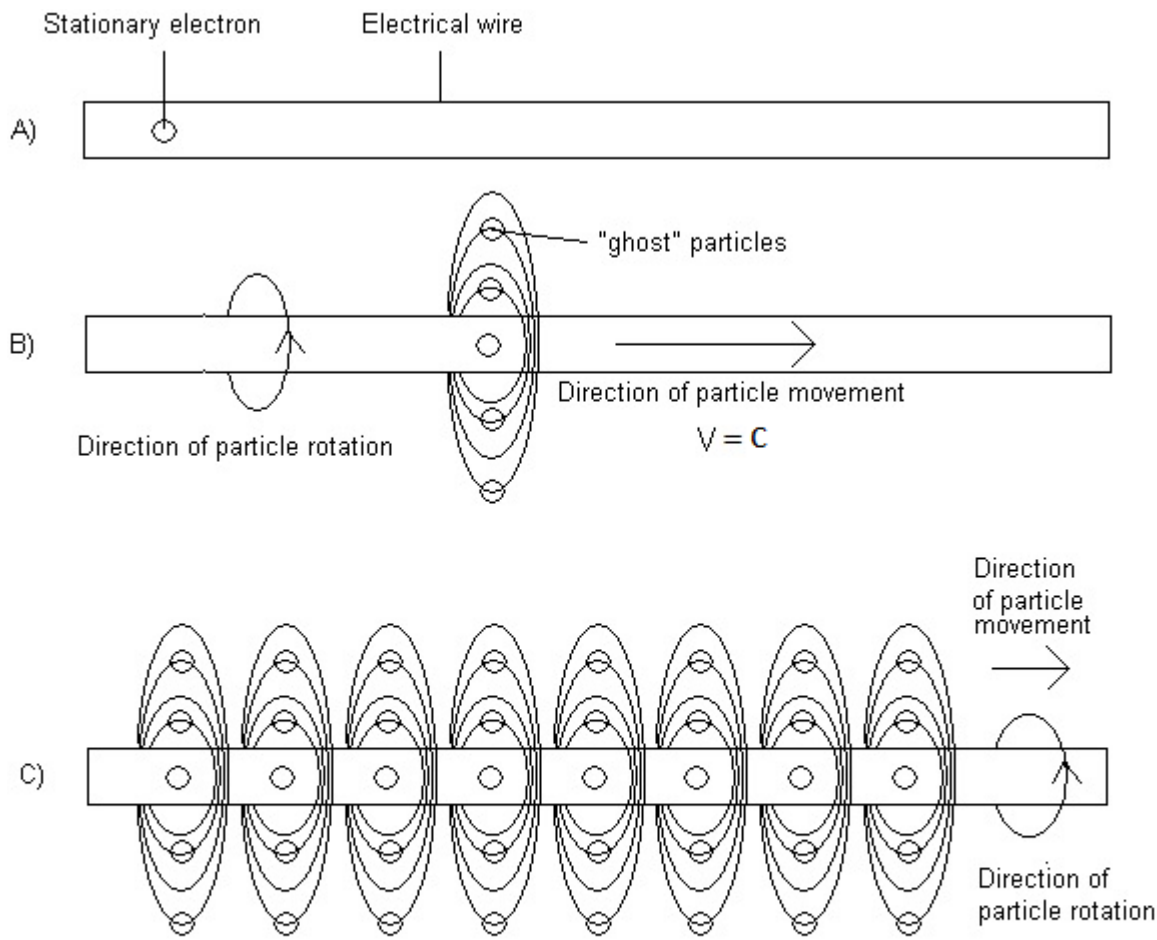
Figure 5: From McMahon field theory (2010) [1]. In A), we see a stationary electron in a wire. If this electron moves through the wire at speeds far below c, then the particle simply moves in a straight line through the wire, and no magnetic field is observed.

In B), our electron is now moving at c, so space dilation is occurring, causing the electron to now move as a circle (full primary coil) rather than in a straight line. As a result, the entire primary coil is always seen to move at a relative speed of c. However, the particle is experiencing maximum time dilation, t'=undefined. As a result, relative to us as stationary observers, the electron is in more than one place at the same time. In fact, the electron is both inside the wire, and orbiting around it in multiple orbital positions at the same time. As a result, we observe a magnetic field around the wire, which is just the electron orbiting around the outside of the wire. This is explained in section II table 1 of the McMahon field theory. When a particle is seen in more than one place at the same time, I call this a ghost or flux particle.

In C), the situation described in B) is exactly what is observed when electricity moves through an electrical wire. Note that conventional current moves in the opposite direction to electron flow.

From figure 5, we see that the original moving electrons we observe as electricity still exist inside the wire, but the length contraction and time dilation effects allow these electrons to simultaneously exist tangentially to their direction of movement outside the wire." [3]

So, to summarize so far, we see that the magnetic field is nothing more than the result of special relativity on the electrons moving through electrical wire. So, from this, what is happening within magnets you ask? Basically the same thing. Inside a magnet, relative to observers (us) electrons are rotating around inside the magnet near or at light speed. As a result, the flux particles or ghost particles move with them. Refer to figure 6 below.
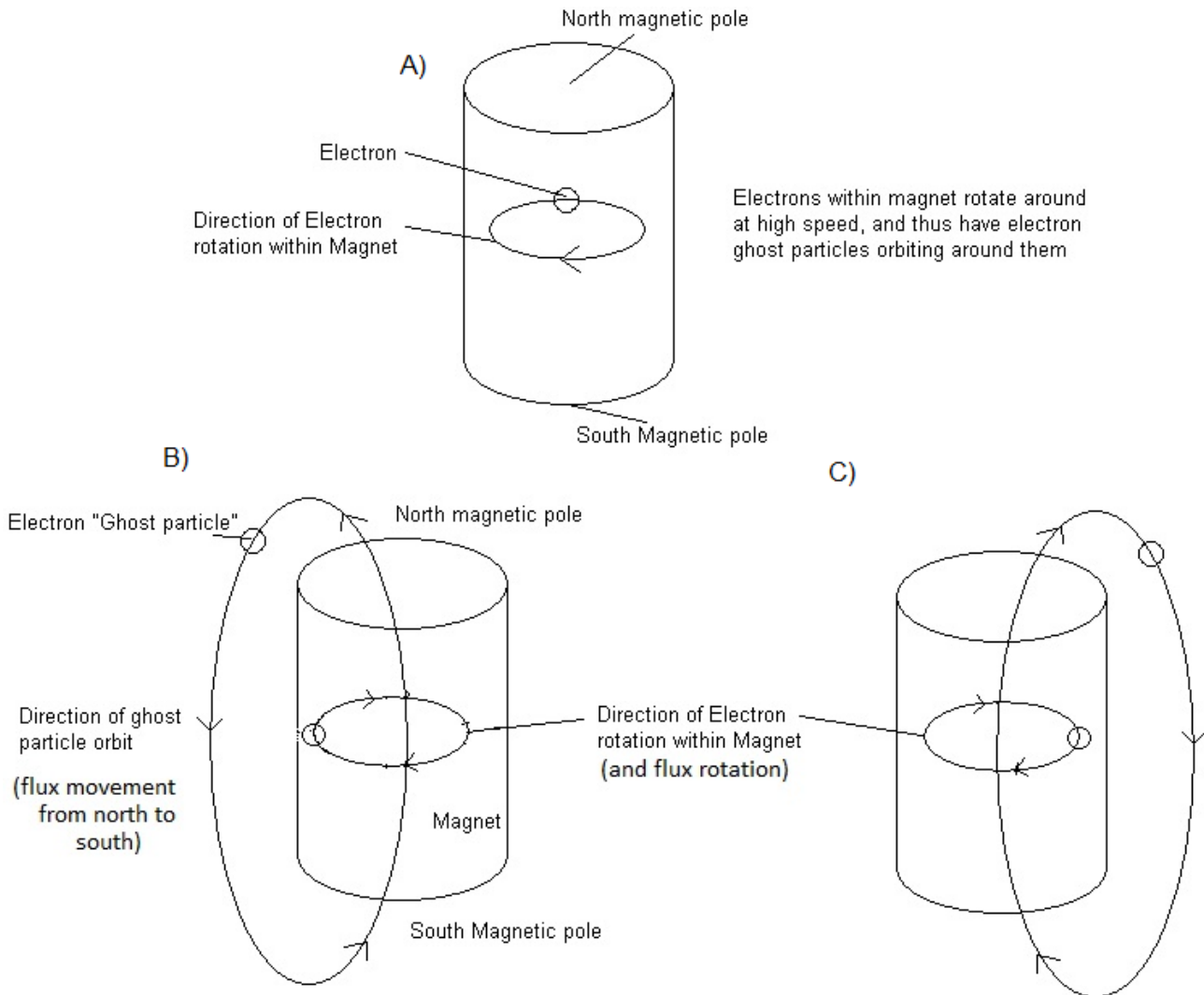
**Figure 6: Modified from McMahon field theory (2010) [1]:** In A), an electron is rotating inside a magnet. I have left out the flux particles or ghost particles in the image for clarity. In B), the rotating electron has ghost or flux particles orbiting around it, and as the electron moves within the magnet, the orbiting ghost particles move also (because electrons in the magnet move as full primary coils). C) shows the flux particles or ghost particles still rotating around the electron now it has changed location. Thus, we can see that not only does magnetic flux move from the north to the south magnetic pole, but the flux (ghost particle orbit) rotates around the entire magnet also. Gravitational flux, which I postulate is caused by high speed protons, will also behave in this way. Note that conventional current moves in the opposite direction to electron flow.

Notice from figure 6 that as the electron moves, the flux particles move with it. As a result, we see that magnetic flux moves from north to south (vertical rotation), as well as rotates around the magnet (horizontal rotation). The rotation around the magnet (horizontal) is referred to in McMahon field theory as flux rotation. Flux rotation (horizontal) has not yet been discovered or realized in conventional science because magnetic iron filings, when sprinkled upon paper above a magnetic field, line up with the flux lines as close to the magnet as possible. As a result, flux lines appear stationary, when in fact they are rotating around the magnet at around light speed.

Let me present two equations from Einsteins special relativity theory:

$L' = L[(1-v^2/c^2)^{0.5}]$ ..........equation (1

$T' = T/[(1-v^2/c^2)^{0.5}]$ ..........equation (2

Where:

L' = Observed length of moving system by stationary observer

L = Observed length of stationary system by stationary observer

T' = Observed time of moving system by stationary observer

T = Observed time of stationary system by stationary observer

V = Observed velocity of moving system by stationary observer

C = the observed speed of light (299,792,458 m/s)

These two equations explain McMahon field theory perfectly. As in figure 3, as a particle moves faster relative to an observer, equation 1 becomes smaller. This is known as length contraction. This effect is what causes the coiling in figure 3.

As in figure 3, as a particle moves faster relative to an observer, equation 2 becomes larger. This is known as time dilation. This effect allows a particle to exist in multiple places at the same time, as in figure 3.

So, we must ask ourselves, from this, if the entire electromagnetic spectrum as in figure 2 is nothing but moving particles, why are photons (which are light particles) considered to be massless? I was able to answer this question as follows. As shown in figure 3, the time dilation effect (equation 2) causes the time a particle would experience in one location to be divided up so that is can exist in other locations. As a result, the actual "time experienced" by the particle is considered to "slow down" for the particle, because the particle must experience time in different locations all at once.

Once a particle appears as energy (secondary coiling as in figure 3), the time dilation effect is so great that is becomes too difficult to detect the mass of the particle in any one position. The particle is basically time travelling to each location all at once, so it spends very little time in each location. As a result, since "time" is a requirement in order to make measurements, we can't measure the mass of the system. For example: imagine you are trying to weigh yourself on a set of scales. However, the instant you put your foot on the scale, you "time travel" to another location. As a result, there is not enough time for you to exert weight force on the scales to measure your weight. Thus, you appear weightless. The same scenario is occurring for particles moving close to or at the speed of light, thus energy, even though it is nothing more than moving particles, appears massless. This is also why photons appear massless.

From the paper: **McMahon, C.R. (2013)** *"Review of Einsteins E=Mc$^2$ papers- Einsteins own validation of the McMahon field theory"* The general science journal [4], I used the logic Einstein himself used to derive Mc$^2$, and I was able to derive equation 3 below:

L(light energy, or just energy) = Mc$^2$[(1-v$^2$/c$^2$)$^{0.5}$] .......... equation (3

This equation is called "the remaining available rest mass-to-energy conversion equation"

Equation 3 tells us that, as a particle approaches the speed of light, it's detectable rest mass becomes harder to detect. As a result of this, the amount of energy that can be converted from this decreasing detectable mass decreases. As shown in figure 7, the red zone is the equivalent energy in the detectable mass of the system. As a particle moves faster, the v term in equation 3 increases. As a result, the red area in figure 7, which is the equivalent energy remaining in the detectable mass, decreases with increasing velocity.
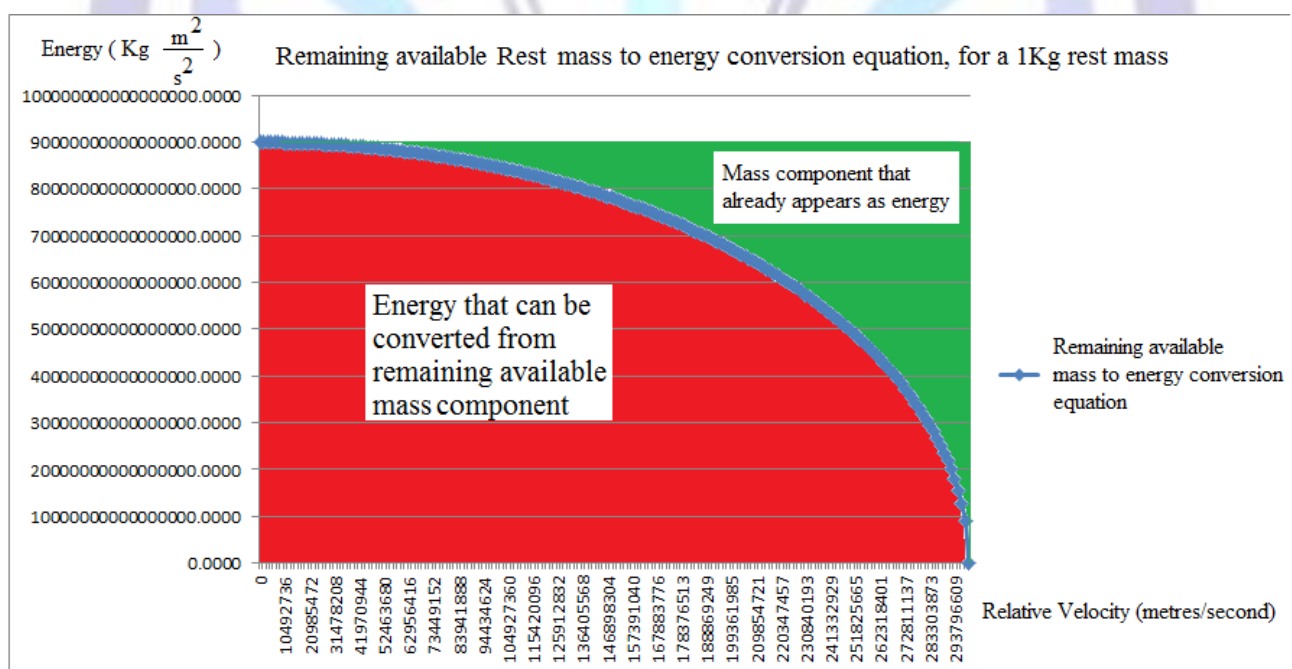


Figure 7: The remaining available mass to energy conversion equation, in its component parts.

So, what happens to the "undetectable mass" of the system? The undetectable mass of the system appears as energy. This is represented by the green area in figure 7. Thus, notice that for any individual velocity, the corresponding red area plus the green area above it in figure 7 = $Mc^2$. Thus, at the speed of light, all the mass of a particle appears as energy and becomes undetectable, and equation 3 becomes equal to zero. Thus, at the speed of light, a particle appears as energy, not mass.

This is also where the $E = Mc^2$ equation comes from. As a particle approaches the speed of light, it begins to coil as shown in figure 3. A coiling system must have at least two components of velocity for it to be able to coil. This is why Energy = Mass x light speed x light speed, or $E = Mc^2$. Notice the velocity used in $E=Mc^2$ is light velocity. This is because equation 3 shows us that at the speed of light, the mass of a particle is not observed, and we instead observe energy. Since magnetic flux rotates or coils as in figures 5 and 6, we also consider magnetism as an energy form.

McMahon field theory also goes on to hypothesize that there exists a parameter that controls the observable speed of light. If this parameter could be found and changed, the observable velocity of light could be changed to another value. This is why the McMahon field theory uses "N" instead of "c" to represent light speed. Einstein assumed that light speed had a fixed and unalterable value that was constant, but never asked himself why. He also never asked why all the energy forms of the electromagnetic spectrum have this same speed. McMahon field theory (2010) predicts that the parameter that controls the observable speed of light is a neutron field, which is produced the same way as the magnetic field explained in this paper, with the exception that moving neutrons are involved, rather than moving electrons. It also predicts that a gravitational field could be produced if the moving electrons in a magnetic field were replaced with protons. Thus, since a proton is positive, a proton field would be positive in nature, and since all atoms have electrons in their outer orbits which shield the inner charge of the atomic proton/s, a proton field could attract all atoms- hence all mass. McMahon field theory calls gravity produced via proton fields "Mahona", pronounced "Maa-naa". Vehicles produced using proton fields as a propulsion system are referred to in McMahon field theory (2010) as "Vmahona", pronounced "Ve-maa-naa". The V term is added to note the word "vehicle", thus Vmahona= a vehicle propelled via Mahona. Refer to [3] for more information on proton and neutron fields.

## REFERENCES

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## Author' biography with Photo

As of the year 2015, the Author is a holder of a Science degree with honours, as well as a Mechanical engineering degree with honours. He enjoys theoretical sciences and is a frequent publisher of theoretical works in the general science journal, available online. He is also the author of the McMahon field theory, which is a theory that attempts to unify quantum physics and relativity. It uses Einsteins time dilation and length contraction equations to show that particles are observed as energy fields as they approach the speed of light, relative to observers. McMahon also uses the McMahon field theory to explain the double slit experiment.