

## WAVE STATISTICS

By Leonard Van Zanten Riverside Ca. 92505

[lenvanzanten@msn.com](mailto:lenvanzanten@msn.com)

### Abstract

This essay is a look into the susceptibility of our media to the waves of the spectrum and in what manner they relate to one another. The theory that refraction is caused by the change in velocity is disproved, the real factor being wavelength. And it goes into the various statistics of waves in general, but mostly our attempt is to learn how and why nature's magnetic phenomena interact with one another on its most fundamental level.

### Key words

Light; Media; Velocity; Waves; Magnetic.

### About Refraction

To make a quotation: ***"Refraction Is Caused by a Change in Wave Speed. All known evidence supports the theory that the change in wave direction is caused by a change in its speed as it transitions between two mediums. This theory seems correct and is not being questioned."*** (Ref-1)

It is indeed a theory, not any fact of nature, and I intend to show how and why it is wrong, to prove that the cause in refraction is by wavelength **and wavelength only** with the change in velocity **incidental**. And since there are a number of ways to prove that, here I intend to do it mathematically the reference being to figure 1.

If the refraction of the light were by velocity it should pass through the prism as shown by "B". And why may that be so? **It is because the index of retardation in the velocity is the same for every different length**, if not so it would not be called an index. A 7000a wave given an amplitude of 9a comes to 7009a that by the constant of lights velocity comes to a relative (time in distance) velocity of 299.614 km/sec. Then to input the index of retardation for glass at 1.5 slows that relative velocity down to 199.743 km/sec. The reduction thus is 99.871 km/sec, which divided by its original velocity comes **to 3% for the 7000a wavelength.**

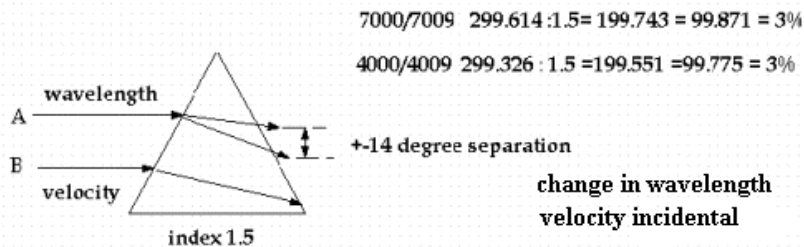


Figure 1: Refraction in and by wavelength, not velocity

When therefore we do the same thing for the shorter 4000a wavelength, as the figures above show, it also comes to **the same 3% in reduction**. **What difference therefore is there in the varied velocities whereby the individual waves should disperse from one another? There is none, since the index being the same for both so their retardation is the same. This all in itself is conclusive evidence that lights dispersion as well as its refraction is - not" by velocity.**

But we are not as yet convinced for then we reason. "Yes Leonard; **"but that blue wave was shorter with the red wave longer, and while both had the same 3 degree retardation the blue wave turned shorter for its shorter length."**

Looks like we just defeated our own theory with our own lips, for yes the blue wave indeed having the shorter length would naturally turn shorter **for its shorter length** – **not in - nor by - any change in velocity.**

The change in velocity was exactly the same for both wherefore its refraction into **"different"** angles cannot possibly be by any velocity or any change in velocity. **But what - is - different in these two waves is their individual lengths.**

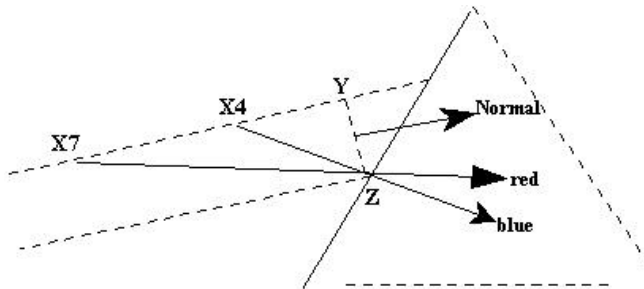


Figure 2: (Ref-2) and (Ref-3)

Illustration figure 2; is in reference to several other essays that I wrote proving lights refraction into different angles **to come by their different lengths**. The blue comes at an XYZ by X4, while the XYZ in the 7000a is by X7. And so it is not that I wished to repeat myself but that even mathematics alone proves us to be in error, and that by our own lips and reasoning we are apt to convict ourselves of error.

Were not both waves **"before"** they came upon the prism already traveling at different velocities? And why then in slowing down within the prism would any wave refract more or less than the other when that index has but a single value, it having an equal retardation for all waves of all lengths?

Are we now convinced that refraction is not due to any change in velocity? If so I should then explain how the change in velocity is incidental. Take in mind a coiled spring within which at each turn there is an atom; if thus there are 20 turns there are 20 atoms. If then the spring is to conform to the atoms in their spacing from one another, and these atoms by a heat-source are driven from one another—the spring must expand, or if closer together the spring must compress.



So it is with light and all magnetic waves. And don't frown on the fact that I call them "**magnetic**" waves rather than electromagnetic, for in my book there is no such thing as electromagnetic, it is either electro or magnetic, two birds, never one bird, unless we are speaking of electro magnets, that then **are two words, two entities, two birds**.

As then the coils of the spring depict the magnetic wave as it is driven in rotation around these atoms, the velocity of that wave is the velocity of constant the full 300.000-km/sec. If then we wish to know just how far that movement will pass in one second of time, it must at all times be less than the constant, less than 300.000, since **it has an angular movement in addition to its linear movement**.

Therefore to find the real distance in time we must add the circumference of any one single turn to the nominal length of a wave and divide it into the 300.000, the result then is multiplied by the nominal length of the wave to provide us with the real distance in time that as such I termed "**the relative velocity**". (Rv)

But we have yet to pronounce how a change in velocity is mere "**incidental**" with the change in wavelength, unless you my reader already added 2 plus 2 to 4. For as the wavelength encounters atoms at closer spacing it is compressed that then results into more turns around the circumference slowing down the forward momentum of the wave. **Conclusively it is the length of the wave that determines its velocity, and density affecting the length, whereby velocity is a byproduct.**

And to provide us with an example, there are 300 billion centimeters in 300.000 kilometers. When therefore that wave must turn by a diameter of 1 centimeter that comes to 3.14 centimeter in circumference. If thus we are speaking of a 100-centimeter wavelength, we add the 3.14 to the 100 - divided into the 300.000 coming to 2908 and that times 100 is 290.866-km/sec. To put it in other words: **The density of any media first of all regulates the length of the wave, that then in turn affects the relative velocity. The constant in velocity never at all changes, not for any kind of density,** the speed of light's constant is completely **oblivious to any density**, it goes through steel as fast as through space or air. **The only change is its speed for distance in time.**

For still another example; a 100-cm wave at 5-cm amplitude for the distance of 300.000.000 meters must rotate at the speed of 300 million each second, the relative velocity would then be  $5 \times 3.14 + 100 = 115.7$  into  $300.000 = 2592 \times 100 = 259.291$ -km/sec. If then we send a 200-cm wavelength after that, it will only have to turn at 150 million times a second, half the speed of rotation, while its forward momentum would be  $5 \times 3.14 + 200 = 215.7$  into  $300.000 = 1390 \times 200 = 278.164$ /km/sec. 278.164 minus 259.291 then comes to 18.893-km/sec that the 2 meter wave will travel faster compared to the 1 meter wave. In order thus for the 2-meter wave to catch up with the 1-meter wave it would have to be send in less than  $1/15^{\text{th}}$  of a second afterwards, otherwise the 1-meter will already be at its destination.

But now let us get to the reality in waves, by what dimension they are passing through all media. By illustration figure 3 let us presume that the atoms in our air are spaced by no more than 10 angstroms, that puts them reasonably apart since their diameter is less than 2 angstroms. For a 4000 angstrom wave that means it is spaced over 400 atoms. (700 for red)

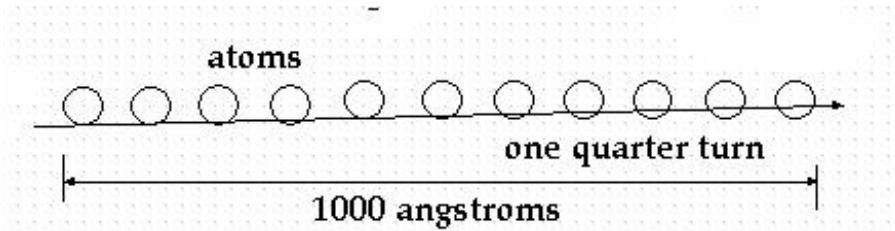


Figure 3: *Blue (4000a) wave spaced over many atoms, illustration showing but a quarter turn around the circumference of those atom. It that it takes that many atoms and more four times over to "power" and "complete" a single wavelet, one of the shortest to our beholding.*

The illustration here shows but a quarter length, and so it is not that there is 1 atom at each turn of the coiled formation, but it was expedient to begin to teach us in that manner, since these atoms are very much susceptible to any and all waves, even as all waves are susceptible to the atoms of all media, and I will enhance that factor of nature in the whole of this essay.

I now wish to bring this to mind how formerly we were taught that these waves were produced by so called electrons, a minor part of a single atom, but how is it possible for a baby chick to hurl an elephant 40 miles down the road? Does that explain it? If so; do yourself a favor and forget about atoms as planetary systems, and electrons as single sided coins (Ref-4)

### **Moist ala Moist.**



This is a familiar sight as if there is water up ahead on the road, when in fact for that part of the air we are essentially looking into a void, a void that appears wet. This phenomena has been explained very well in angles and all, but not how it takes place right down upon the atoms, and for that I drew up Figure 4.

As the light proceeds from point "0" to "Li" over atoms "A" through "D" at equal spacing it contacts these at point levels 1, 2, and 3. Then comes the warmer air where the atomic spacing is greater and here the wave red shifts. Our question then is **"how" and "why" it does so?** Atoms come to be spaced further apart because they are magnets, and as such the perfect agent to form all that is found in nature. These therefore have that familiar figure eight field of force that spins along as the atoms spins - and for the heat coming to rotate faster their fields expand driving the atoms further from one another.

**This can only be done if our atoms are magnetic, and since it is done so our atoms are magnetic.** (Figure 5A) And for some evidence to that field expansion, look at how far the power companies hang the electrical wires from the poles when their rotation comes as high as a quarter million turns per/second. Or water into steam, or gasoline to drive down the pistons of our engines.

With the light coming in the normal it will not refract, and thus should go straight on from level 3 to 5 and near 7. But we know that **it does not do so** but comes to an expansion. In other words from atom "D" at point 3 without the greater spacing it would have contacted atom "E" at point 4 and "F" at 5.

**And so what is it with the affection of the wave for those atoms to by all means make contact upon atom "E" point level 4 even when it is at a greater spacing?** For here is where the expansion takes place all because **the love scene** between the wave and the media seems to be **a true love** to let nothing stand in its way but to make contact upon atom "E" where it was supposed to, and from there to point level 5 at atom "F".

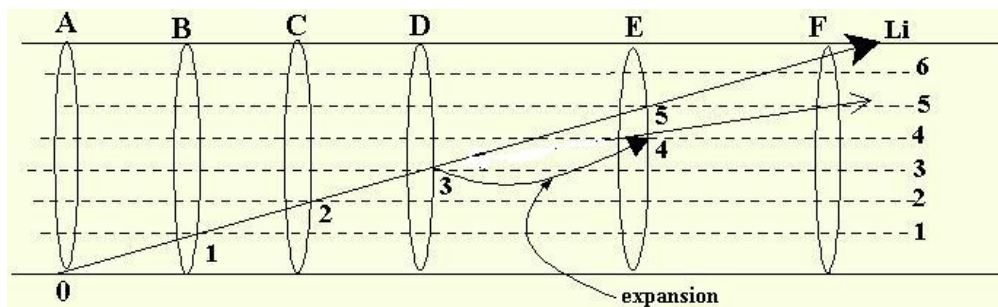


Figure 4. *Wave expands keeping contact with the media.*

I now beg your patience to explain this so called love scene, my explanation in a few words would not be understood, wherefore I must use numerous words and examples. Understanding nature appears simple to me, but explaining it is an altogether different matter, and O how I am searching for the right words to outline the picture that is in my mind. For one thing our illustration is two-dimensional while everything in nature proceeds by a three dimensional format, and I am not any good at drawing 3 dimensional.

From atom "D" and further as the wavelength increases the light increases in its relative velocity as well without any refraction since it came upon these atoms in the normal. Nor is the main trust of this essay to explain refraction as shown by figure 2, but rather how and why waves are so susceptible to the media. (Their love scene)

No doubt the part of the wave ahead of atom "D" will hold its form rigid, but that seems rather to defeat the well- known expansion as if then it should not at all expand. And yet contrary to our thinking it does serve the wave in its expansion all because our light is not a straight line on the move but a circular on the move **that is as much magnetic as the atoms are magnetic.**

If then that is confusing I did hit the nail on the head. The forward point of the wave cannot just plunge itself into a void just ahead of atom "E" but forces itself (or is forced) upon the point at atom "E" where it was supposed to go. And yes this is because it works two ways from the wave as well as from the atom. The secret lies in the fact that all media is of a magnetic nature. The wave from atom "D" is drawn to atom "E" just as two magnets near one another draw towards one another. **It is by that secret in nature that**

**waves expand and/or contract.** If then we wonder why the wave does not cling to the atom, the wave does not have a body like one magnet to the other, but its movement is nonetheless directionally conductive as all magnets.

If now that makes sense to us or not, it must be in my wording of it. More or less it boils down to conductivity how all parts in nature work together, their love scene as I termed it earlier. That thus is just another way to express the push and pull between magnets. And to somehow illustrate the wave for its movement the reference is to figure 5. The wave for its rotation (light b) has the natural tendency to follow the rotational movement of the atom, yet at the same time in passing some 400 atoms for a single rotation the illustration to reality must also show it as a straight line over it (light A) For that is the nature of any and all waves of the spectrum. And where I claimed both of them to be of a magnetic nature, do we ourselves not list the spectrum as magnetic?

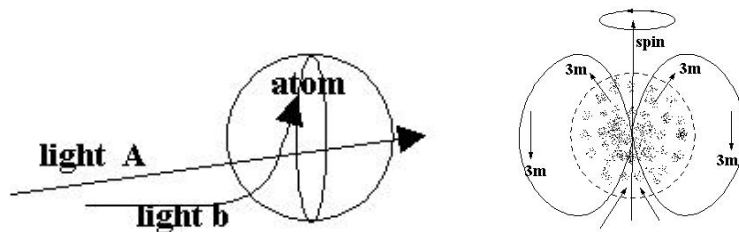


Figure 5. *Wave passing atom. figure 5A. Atomic spin and coordinate movement*

Still more in the way of fundamentals is found in my essay entitled “Magnetic Electric” (Ref-4) We must get out of the habit as if magnetism comes forth by electrical charges, the truth is just the other way around, electrical is a derivative of magnetic and as such itself magnetic in the angular rather than the linear. Figure 5A is to convey how there are always two types of movement with the atom, the “3m” presents the regular magnetic power – field – or force, while “spin” denotes the spin of the atom, that for the lighter elements at high rotation comes to expand the force of “3m” like in steam and the hydrogen bomb as well as gasoline, but very little expansion with the larger more complex atoms of steel etc.

And so nature existing magnetically I am frowned upon for saying so. We for example may acclaim that all heavenly objects are held gravitational, but we have never come with any kind of evidence, nor any kind of reasoning however poor. Yet I utilized our own laws to prove that gravity is but a local force with a limited reach (Ref-5) And seeing how our media is also called “matter” it consists of atoms even as we have listed them for their elements by the periodic table. Nor therefore should we corrupt our minds with things like anti-matter or dark matter or any the likes other than being fantasy. It is hard enough mind you to come to understand nature for its true **matter that we as a whole have yet to learn, and never will come to understand for its fundamental reality.**

If then we are interested in comprehending nature take due consideration of figure 4 and what is spoken of it. For it is truly phenomenal how these parts in nature are so inclined to one another and work so well together - all that by virtue of their magnetic nature, for no other nature can explain it, or even come close to it. Realize how at the



speed of 300 billion meters a second that wave expands and/or contracts itself for even a single nanometer greater spacing of the atoms. Most phenomenal so I say.

### More statistics

Before we dive into the further reality of magnetic let us enumerate a few things that may be of interest. By figure 6 within the broken lines are two wavelengths, one of 7000A and one of 4000A, and to cut down on numbers let us use meter lengths for angstroms. As for the tubular width around the circumference let us set it at 5 angstroms.

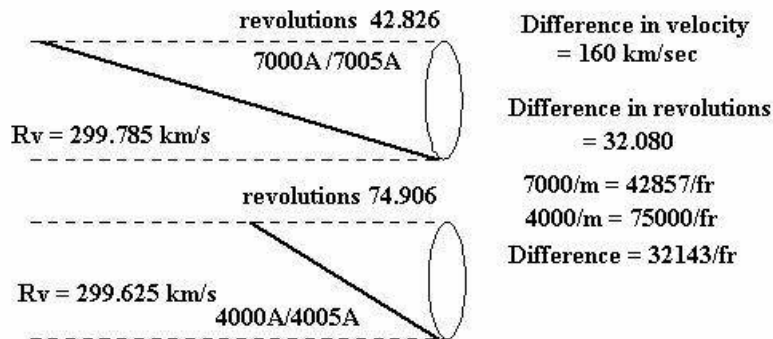


Figure 6. Statistics in number.

The solid line within is one half of the wavelet greater for the 7000A, smaller for the 4000A. The velocity at which these lines pass around the circumference is the "Constant", the full 300.000 km/sec, or simply "Vc". Then we must find the "relative" velocity of each for the actual distance it proceeded in that one second of time. Vc then divided by the full length of 7005/m comes to a frequency of 42.826, with 4005/m to 74.906 in frequency. These then multiplied by the nominal length of 7000, and 4000 provides us with the relative velocity of each as noted (Rv).

Now let us come to something more realistic, there are ten billion angstroms in each meter wherefore in 1 single kilometer there is room for 1.428.571.428 lengths at 7000a, that is the 1/300.000 part of the frequency in any one second of our red wave, the full frequency being 300/000 times over. (a 4 with 14 more numbers) And so we never record the factual frequency that would fit in a red wave, **nor are these frequencies ever produced at that rate**, not even for a 300.000 part thereof.

**What the real frequency of any light wave is we may never know**, we can indeed calculate how many lengths would fit for any distance, as we just did, but that's it, and no more. The true frequency depends on how many times in one second we can instigate an impulse upon the line of magnetic. If it be as fast as 300.000 that comes to one single wavelet in each single kilometer, more than enough by which to have our beholding, or to be blinded by it.

Waves are never continues; yet we have need of it in our mathematics to full frequency in order to establish velocity as well as the speed in rotation. In one single kilometer there is room for roughly 1.4-billion red wavelets. The number of rotations then would have to be 1.4 billion in 1/300.000 of a second, that then travels forward at the Rv of 299.785/km/sec and rotates at that same velocity, for it in all essence is a magnetic pulse passing along a single thread upon a long bolt at 300.000/km/sec

As thus the linear velocity of the wavelet is 300.000/km/sec, with the Rv for its length of 7000a at 299.785/km/sec. As then the angular distance in the circumference is no more than 5a each that for its angular momentum comes to 214/km/sec.

(1.428.571.428 frequency times 5a = 7.142.857.140 angstroms in 1/km divided by 10 billion = 0.7/meters times 300.000/km = 214.285/m/sec divided by 1000 comes to 214/km/sec.)

### **Education**

In order to be educated we are to make some changes, the speed of light is normally noted as c, and that is wrong since it is but a single notation while there are always **two velocities** associated with all waves. The real velocity at which all waves move is a single constant velocity taken at 300.000/km/sec. It passes through everything oblivious to any and all that we may name, neither density, nor gravity, nor anything else affects it as far as its velocity is concerned. Therefore it is properly called a/or /the “Constant.”

In a straight line there is no calculation of it because for distance in time it is the full 300.000/km in any one second. But that line as a wave incorporates an angular moment that as such adds distance that then as such slows down the forward momentum for distance in time. That angular addition to the line then alters the final velocity, wherefore there are always “TWO” velocities to any wave.

Our notation therefore must specify as to what velocity we are talking about, be it the constant or the velocity for distance in time. Therefore I elected to keep the c, but add the proper notation in capital in front of it. For the constant it becomes Vc, meaning Velocity of constant, and since the speed for distance in time relates to all the different lengths I came to call it the “Relative” velocity noted Rv, after its name. The notation c therefore no longer exists; it is either Rv or Vc.

### **Magnetic nature**

If we are to understand nature in its fundamentals we must adapt ourselves to the reality that everything comes forth and is sustained by movement, and not just any kind of movement, but that kind of movement that is an entity in itself and classified as the second most fundamental force in nature. The term applied unto it spells magnetic as in magnetism to include all such phenomena that are derivatives of it - such as electricity and the whole of the spectrum for its waves, - as well as all elements in the periodic table.

A mouth-full no doubt but as some 50 years ago I coined the words; **“Nature is Matter in Motion by Coordination”**, so is nature in its forthcoming. Matter as such is something we have no real comprehension of, and no doubt it will remain that way. But we can relate ourselves to motion as that entity of motion that is not only conductive - but directionally conductive - as seen in all magnets and the derivatives of magnetic. As then we come to “coordinates” that as such spells patterns, outlines, progression, the formation in which movement proceeds, some of which we call waves, others lend themselves better to the term of coordinates.

And so let us have a look at the rotational format of magnetic better known as electricity illustrated by figure 7. That pattern is like a tube, a simple piece of wire serving as a guide for the current. When the side of that conductor is placed next to a standard magnet it will move to and from any single pole of that magnet all because the current is a rotating magnetic force produced by the rotation of an armature within a



stationary magnetic field. (Ref-4) At 12 volt that conductor will then vibrate at the rate of 12 turns per second, at 120/volt 120 rotations, while at 240.000 volt the power companies are forced to hang their wires on long porcelain holders.

But our interest here is the polarities at the side of this conductor each single figure eight acting as a magnet in itself with a north at one side of the tubular force and a south at its opposite side as illustrated. This we can grasp because the polarities are at the center of each figure eight, their direction of movement appearing alike unto any normal magnet. But at the crossover where each figure eight links with the next in line the direction of movement is the same, **and why then is there no linear trust from these points?**

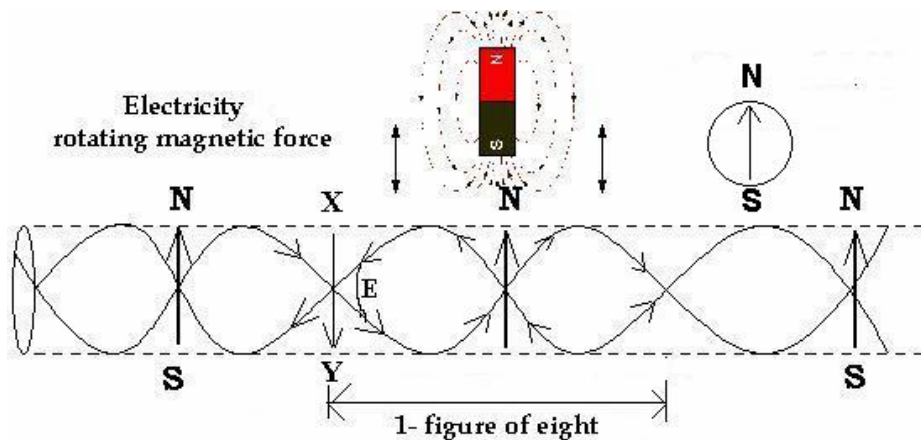


Figure 7. *Fixed polarities upon a rotating magnetic field*

It appears that “X” should be a south with “Y” a north polarity. In that case however the wire should not move to and fro of the magnet; the polarities canceling each other out. Our own experiment then proves us wrong in that respect. The solution then is to accept that these equatorial regions present no linear trust but simply join with one another. Singularly their pattern would pass like at “E”. Yet in this case the direction of the north from any one passes on to the south of the next in line as well going two directions, and that because magnetic movement is directionally conductive.

Curious how by appearances we can interpret something in one way, yet be not so, and that goes for the norm of gravity as well. Our reference for this will be to figure 8, The wavy lines upon the arrows depict the inclination of gravity as they are driven down by the magnetic potential of the earth.

It is easy to apprehend how at the south the movement is towards the center, and even at east and west the substance resting within the loops are as such quelled to the center of the earth. But how may that be at the north where the direction of the magnetic lines **are away from center?** If it were only relevant to the direction by which the magnetic flux proceeds we should not be pulled to the earth at the northern polar area, and yet we are. Here again our observation is contrary to the facts wherefore there must be another answer.

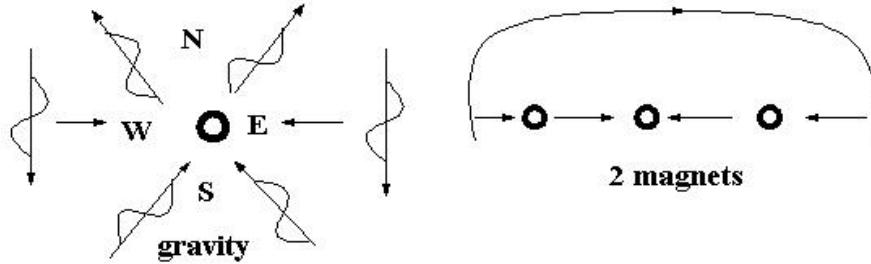


Figure 8. Gravity and magnetic driving to a center.

Our observation for the 2 magnets to the right in figure 8 is however correct, both magnets attempting to create a single center. But how is that when we break a magnet in halves to find itself two new centers? If the pattern of magnetic were (as currently claimed) two circles joined at center this could never happen, nor would these seat themselves at precisely the center of a mass. The movement proceeds from “A” to “B”, not to “C”, and as such it comes to quell.

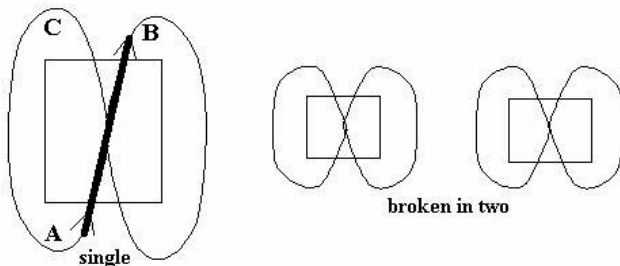


Figure 9. Magnetic motion fixes itself by and in its own nature of being.

That then is an interesting prospect how for the volume and size of the mass it adjusts itself to draw equally on all parts wherefore and whereby it comes to center itself upon that mass? We know it does so, **but what are its deep down fundamentals?** Obviously it is not in the atoms of the mass to direct the force for its coordinate, nor does that overall coordinate seat itself without **some directive thereto.**

We then came up with the idea as if metals contained domains Illustrated by figure 10. But that does not demonstrate reality, first of all the magnetized domains do not line up according to the pattern, the eight of magnetic, where the alignments goes out from center into its circular being. Nor does any kind of metal or rock contain such a thing as domains. The only time when an object may have a residue of magnetic is when it has been once magnetized, and that only within suitable compositions that are able to retain it permanently. A nail for example once held to a magnet will lose all of that magnetization when removed.

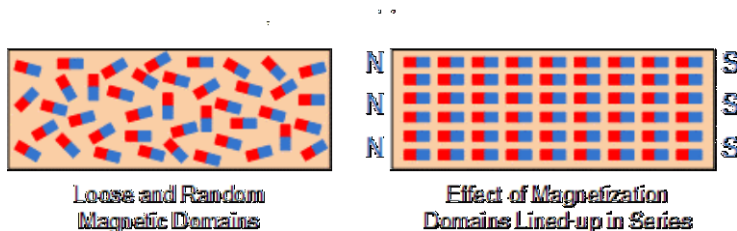


Figure 10. No such domains nor alignment exists.

There has to be some coordinate left within a broken magnet whereby a whole new overall pattern will come to seat itself upon these broken parts, and that can only be found in a composition suitable to it. Otherwise it would have to be magnetized again, but if that is the case then it cannot be anything permanent, but be like the nail.

I now do know the principle of magnetization but as to how the atoms form their local formations within the substance may or may not be accurate. Many years ago when I was yet young I conceived and drew up what I termed “Component” factors illustrated by figure 11. That illustration depicts the principle in how and why the overall pattern upon the mass comes to lock itself onto it so that when one pushes on the force the mass moves with it.

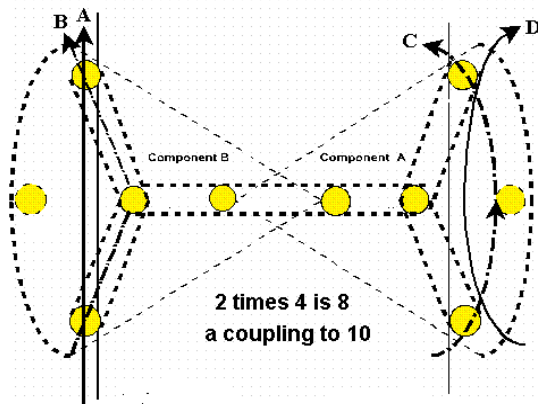


Figure 11. *Magnetic component to principle*

In principle the magnetic lines of movement fasten themselves, or are fastened, to certain types of mass, mostly metals, by what I termed “**curvature**”, and that is what is shown by figure 11. Curvature is akin to when a rope is wrapped around one or more poles so that when one pulls on the rope it locks itself to the poles or draws them with it. This is unlike a knot but serves the same purpose.

The magnetic lines passing over the atoms would normally be straight on (Figure 11 A, B.) But with the substance magnetized the electrical or magnetic field instigates component factors, it does not as such rearrange the atoms but fastens a coordinate upon them that for its unique ability produces curvature illustrated by figure 11 C, and D. Basically it amounts to 4 atoms (or groups of atoms) in dual measure that link to one another by 2 additional atoms, or greater number thereof. That then all in itself presents a figure eight in pattern as well as force, and it is but one small part along which the main overall lines of magnetic in passing lock themselves.

Fanciful so you might conclude? And perhaps you are right as far as the illustration is concerned, and the layout of the atoms, but it serves me to depict the principle whereby magnetic fields produce local formations within suitable substances able to retain the coordinates. As therefore an existing magnet is broken in halves it reestablishes its overall (greater) formation **by means of the local ones**. And that in itself is most marvelous. A piece of steel once magnetized, and no longer magnetized when cut in halves does not present two new magnets. it lacks the local ones, its substance not suitable as some others are.

## IN WISDOM

And now to go into the wisdom of it how things relate to one another in that ever directionally conductive property of nature's fundamental movement. The eight is forever, - the eight passes the seven, - the eight comes to curvature, - the eight is linear and angular, - the eight always draws inward. - In the eight to quell is natural not merely for its design but for the ever movement in and by its design. - The eight is never a straight line yet able to produce linear movement. - Nor therefore can any wave be a flat wave - since it rates by the term of magnetic, and conforms itself to the curvature of magnetic. When therefore nature's magnetic lines are twisted over one another these being in eight produce eight's as seen in the electrical derivative of magnetic.

Magnetic is by an eight in force and presents itself wherever there is matter from the atom up to entire galaxies. Most astounding of all is **its "conductive" nature into direction of**, and how it becomes a fundamental entity that as such is immaterial, not any part of matter but forming matter. And so indeed that which is immaterial and invisible comes to produce what to us is material and visible, wherefore to comprehend matter for its nature to the mind of man is illusive. And even movement to its coordinates for the multitude thereof is far beyond man, and yet we try, and try again only to experience the pain that goes with it.

In any one magnet the atoms being an eight in force comes to a greater pattern of eight in force that then serves the greater overall eight's of force. When we illustrate a magnet for its lines of movement - that is its "overall" eight of force, its "overall coordinate". The interior is never correctly illustrated because we were as yet unaware of its fundamentals. In nature there are loops within a loop and yet greater loops; meaning force and movement in the pattern of the eight, since **the eight of force is unlike anything in nature**, she is single and yet upholds all things, she is unique, all powerful, and nothing escapes its embrace.

The it is a he - and second in the norm of fundamentals formed by what is yet more fundamental that for an oath I fear to mention. We may look at motion as being and none being, that when an object moves there is motion, but when brought to a stop the motion is gone, ceasing to exist. But not so with the ever movement, the fundamental one that never ceases nor slows down for anything - it being an entity in itself, it powers all things, and maintains all that is formed, no atom is without her, nor could these subsist without her. It is an entity with a single reference best understood as "movement" but goes by several expressions, the main of which is coined magnetism.

If there were no motion in the atom at the surface of a green leaf, we would not be able to behold the green nor even the leaf. And if it were not for its ever movement the code for the green spun off of that atom would never reach our eyes. And if that code were not like unto a spinning screw type entity it could not tickle our receptors by which to interpret it for our beholding. And what more shall I pronounce for what is truly fundamental and ever abiding? For there is much more, but who is to hear that wisdom when for an oath I am withheld?

In reference to figure 9 and 11, unless a component factor is left intact within a broken magnet it could not possibly reestablish itself to its greater overall formation. Since then a broken magnet becomes 2 magnets it verifies the fact that the overall formation is established by local formations, and how there is a return within and upon these local formations. This is true for many substances but not all substances, - in the

lighter elements there is an angular version of our component factor instigated by the inclination of gravity. That as such answers our quest in when the direction of the magnetic lines are away from center yet we are drawn to that center, or as I might coin it, quelled to center. (Reference figure 8). Our component factor by figure 11 is the linear component, nor will I go into that angular component factor having its rightful place under a heading of gravity.

### **QUESTIONS The Why, How, and What.**

Now let us come to questions, for I am not at all happy in how I have worded this essay to present that, which is in my heart and mind. What is in my mind is far more beautiful than what appears black on white.

**Why** do waves adjust their angular form just to make contact upon an atom next in line? -- **Why** are we drawn straight to earth's center by lines of movement that are not in a straight line to center? -- **Why** do magnets move towards and/or away from each other?

**Why** and **How** do the lines of magnetic when twisted over come to full magnetic entities? -- **How** do two atoms bond so well yet conceal their polarities to all others? -- **How** do the atoms in a molecule bond so well yet remain free of others? -- **What** is in speed to restructure the coordinate pattern of magnetic? -- **What** is the affection of conductivity to adhere? -- **What** is the distaste in magnetic lines in opposite direction to depart from one another? -- **How** is an overall magnetic pattern produced from a mere component?

At one time or another I did answer all these questions, and yet they still remain to me as questions. One of them really bugs me, the fact that magnets move towards one another. Its all fine and dandy that their direction of movement is one and the same, but **WHY do they move, and HOW so?** Will the answer be because it is conductive? Alright so they are, but that still does not explain **why** they move into one another. Gravity is a much simpler subject since that downward movement is like unto a nut turning upon a bolt, but the simplicity of magnets pushing and pulling still evades me.

I am like my grandson when he was little, everything was always **why this and why that**. And how right Solomon was where he said; ***“That an increase in knowledge also increases pain.”*** It may have its rewards but to have an unquenchable thirst for knowledge is painful.

### **ANSWERS**

For two magnets to move into each other my answer is; while the lines in one and the same direction appear straight these are at all times part of a circular loop, its pattern of eight and as such come to quell. Everything within the eight of force is like it is embraced and pulled inward because the ever movement returns to its beginning, always returning to its center of being. And so now I gave a correct answer yet it does satisfy me as I hoped it would. The answer in electricity is like magnets joining at their equatorial region where from north to south their movement is in like direction. As then at these points they appear just like at the center of eight, there is no linear push nor pull from them. And that still bugs me true as it may be – for still a more fundamental answer.

The fact that a wave at the velocity of more than 300.000/km/sec comes to have a love scene with an atom at no greater distance than a few angstroms whereby it comes to refract as well as readjust its length – is most phenomenal, and frankly beyond our

comprehension. But then what else is new - for as we receive billions of light-waves upon those two little eyes of ours, we instantly interpret them for a beholding. And so our spiritual mind works as fast as any light for its velocity if not faster, and that without any effort to ourselves.

Have I now in some way shown how and why the fundamental parts in nature come to have such an indelible relation with one another, whereby waves come to expand and compress and atoms lock onto one another? And; that by the only two types of movement angular and linear in a multitude of variations whereby electricity comes forth as an angular magnetic entity, while each and every atom display their magnetic nature in the linear, yet rotate? And; how that rotation by varied velocity comes to restructure the magnetic pattern upon all atoms? If to my reader it has, myself I am not at all satisfied, ever searching for more.

As then our Creator by no more than the power of His word brought the whole of the universe into being, it seems astronomical, but no less to bring forth all it creatures in such many forms, some to dress themselves with fire, while we shun the fire. And who can speak of all else that He placed within the whole of the universe as no more than a tent for Him to dwell in? It is not that He formed what is outside of Him, but all things are contained within Him, and so wherever one is in the whole of the universe we are never without Him, nothing therefore can escape Him.

He gave me a knowledge more than many, and yet for its awesome quantity it is but a single ray of light from His throne. What grandiose knowledge and wisdom He therefore possesses to create all these, unto whom we in all our numbers are less than the dust on the scale. Yet He who is so grandiose duly considers even that fine dust, and allows some of us to be called by His name.

### **Conclusion**

I had hoped to make a revelation, to show the intricate relation of any one part in nature to the other, but in my book I failed, and I am reminded of how all things under the sun are vanity. And so my dearest wish - as it has been for years - is to depart from this world, and this life, to at long last find peace, peace of mind and peace of soul.

### **References**

Ref-1: <https://www.quora.com/What-are-the-causes-of-refraction-of-light>

Ref 2: <http://www.gpcpublishing.org/index.php/gjp/article/view/426>

Ref 3: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.714.2402>

Ref-4: <http://recentscientific.com/magnetic-and-electric>

Ref-5: <http://gsjournal.net/Science-Journals/Essays/View/5863>