

The Fundamental Particle

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The purpose of this manuscript is to provide a mechanical model or ontology that explains the structure and contradictory nature of the subatomic realm. A model is created which explains the mechanical nature of force, the structure of elementary particles, the nature of charge, and how wave particle duality, particle and virtual states, and the speed of light exist.

1. Introduction

1.1. The Contradiction of Aristotle's Matter

At the very foundation of science rests the concept of matter. Aristotle proposed that substance was generated from an underlying substratum that he called matter. The problem that I have with Aristotle's definition is that he assumed that the first body generated by matter immediately described substance. In addition, Aristotle proposed that matter was within the body of substance only, and that void was non-existent. This led to a contradiction, because it meant that matter was substance. As a consequence, Aristotle could never establish how the two were distinct, or how one manifested the other. Even though flawed, this definition of matter remains, and we continue to accept that substance is composed of matter, with void in between.

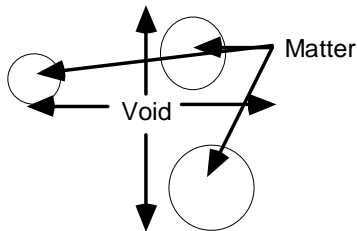


Fig. 1: A representation of Aristotle's matter and substance.

The end result is that we are left with no viable mechanism to explain how substance is actually generated or how two bodies of substance interact over a seemingly empty expanse. There is a better, more ancient definition, which will solve all of our problems.

1.2. The Fundamental Process

The wisdom of the ancients is rooted in the belief that substance is generated. In order to determine how this is accomplished they employed a simple process of reduction. Basically, they asked 'what is common of all substance'. They identified three attributes: body, motion, and if a body is to move, void. The key to their wisdom was the monistic belief that our existence is derived from one material, from which all things are created. Prior to Aristotle, the underlying substratum of our existence was not called matter per se, but the name is transferable.

I will now attempt to describe how Matter exists, but I cannot explain why, for this is beyond the intellect of any person. Only Matter exists. It is the inexplicable nature of matter to create spherical bodies 'within' itself. In this respect, matter is both inside and outside of the spheres that are created. Each sphere that

is created is identical. The fabric of space consists of these spherical entities, which represent a plenum of structure that precedes substance, which is not immediately substance. In ancient terms, these spheres constitute an 'Aether', which should not be confused with the more classical, ill defined, 'ether'. Matter therefore is a trinity, it is Matter that divides itself into the 'limited and the unlimited', or 'body and the void', or 'aether and the void', but both of these contrary states are Matter. Change is between contraries, but contraries cannot act upon one another. If change exists it must exist as an actuality, a certainty, and must be the inherent nature of matter. Thus if change is to occur, it must be that the actuality of body changes to the potential of body, which in turn becomes the actuality of body again in a perpetual cycle of reincarnation.

In order to qualify change, I envision apertures in the fabric of space. The constant production of aethereal spheres, according to the inherent nature of matter, would cause these holes to collapse. The end result is that the fabric of space will accelerate into these voids, converge upon a central origin, where the spheres crush one another at the center. The process is perpetuated by the constant flow of aether into the process.

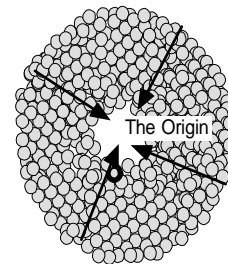


Fig. 2. A miniature black hole or aperture in the fabric of space.

This approach meets Aristotle's criteria, because matter is never actually destroyed, it merely cycles, changing between contrary states, and remains as the underlying substratum of our existence. Matter is the cause of change, and change is force.

1.3. How Substance is generated

Mechanically speaking, aether accelerates into the process, and in so doing some aether is pushed forward ahead of the others behind. This creates an inherent pressure gradient around the process. The pressure increases the closer we approach the origin of the process. Now the flow of aether into a fundamental process is spherically symmetrical, therefore, it cannot cause the process by itself to move. However, two processes in close prox-

imity will consume the fabric of space between themselves. In the presence of a tertiary flow, the two will also push each other in the direction of the tangent, because the curved pressure surrounding each at a given radius represents a tangential force. This means that the two processes will spiral inward. This is a secondary cause of change, and thus a secondary force. The electric force.

Now according to natural logic, aether should flow along the path of least resistance as well, so it will tend to flow around the two spinning processes in order to reach the shared space between the two. The end result is that both fundamental processes within this interaction will acquire a horizon front, such that a transient volume of space becomes connected to the process and therein carried with it through the fabric of free space. Inertia is born.

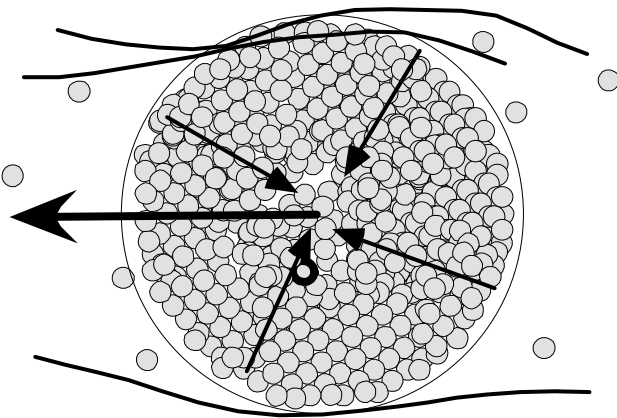


Fig. 3. A Fundamental Particle moving through the fabric of space.

Once the fundamental process acquires a relative body of aether, bound matter, it becomes what can only be described as a body of substance, a 'fundamental particle'. The fundamental particle is created when fundamental processes come together. It is not a particle component until this occurs. The boundary of the fundamental particle is constantly being depleted and replenished, by the addition of new aethereal spheres from the fabric of space.

While the process is a constant, the boundary is a variable. The faster a fundamental particle goes, the harder it impacts the fabric of free space, and the deeper the free space is able to shear into and tear away the connected body of the particle. Eventually, a point is reached wherein all that is left is the collision at the center of the process. When this maximum velocity is reached, the fundamental is in its virtual state. This unique landscape of phenomenon leads to some interesting difficulties. For instance, the body of connected aether is the physical body that can strike another body, but its size is proportional to its speed through the aether, which affects how a known force deflects it. It follows that its inertial mass is not a constant.

2. The Electronic

2.1. An Elementary Particle

As the two fundamental particles are pulled inward, they accelerate tangential to one another. Again, the closer they get the

faster they move and the smaller they become. Eventually a point is reached wherein their velocity and reduced size are sufficient to counter the inward strong flow of space- the Strong Force.

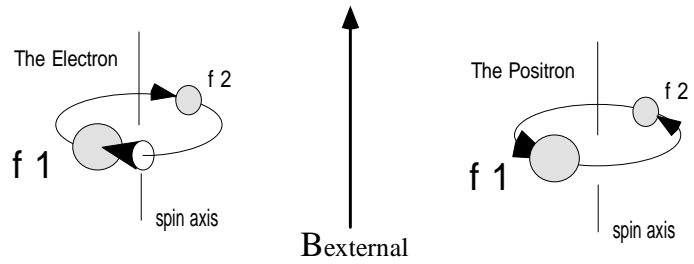


Fig. 4. The particle structure of an electron.

In a strange manner, if a fundamental particle of this system were attempting to escape the inward strong force, it would move to a region of less pressure, would get bigger and then be pulled back in by the strong nuclear force. The end result is that every spinning two fundamental particle system reaches an equilibrium point, which represents an elementary level of subatomic structure that is relatively stable. Once we examine the physical attributes of this two fundamental particle system, it will become abundantly clear that it describes the 'electron' rather well.

2.2. Wave Nature

Consider that as the two fundamental particles spin around one another, and if you are within the plane of their spin, that you will be pulled intermittently by one fundamental process, then gradually two, and so forth in a wave-like manner. In another respect, if you are at a radius, r , within the plane of the spin, then you will be subjected to a fluctuating maximum and minimum of pressure as the system spins – a force. It follows that if you were passing this system, that your path would be sinusoidal, or wavelike. This is because a change in pressure is a force. Even particles that are being brought together by the strong inward flow of space will still prefer to travel along the path of least resistance while doing so. So if the pressure of the space surrounding a particle system is curved, they will travel along the equipotential lines. We should not ignore the possibility that the two mechanisms of force, the inward pull of space, and the pressure gradients in the surrounding space, act at the same time. What classical scientists have failed to realize, is that just because a particle system can collide with another as a particle, that the unique pressure fields that they create in the surrounding space, also defines the nature of that entity, and how it interacts. Accepting the existence of the aether, allows us to understand wave particle duality. A particle is not only a physical body of matter, but also a process, and also the wave properties created by it and extending into the surrounding space.

2.3. Pressure Fields

When I speak of a 'field', I am speaking about the strength and fluctuating shape of the pressure extending into the free unbound space surrounding a particle. If we were to draw out lines of equal pressure around a two fundamental system, it would not be spherical as is the case for a fundamental, but similar to the disc spinning on edge in Fig. 5.

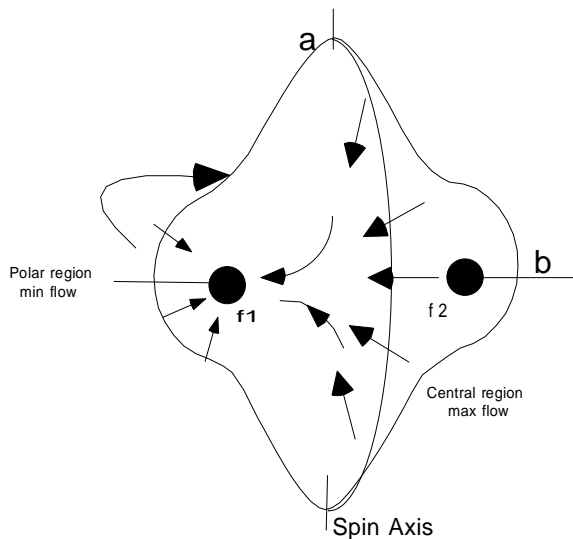


Fig. 5. The wave diagram of the shape of the field surrounding a two fundamental particle system, where the pressure is equal.

Above and below the spinning system we have a relative maximum of pressure at a fixed radius, while along the plane of spin at the same radius we would have a fluctuating maximum and minimum of pressure. The plane of spin defines the electric field, whereas the axis of spin defines the magnetic axis.

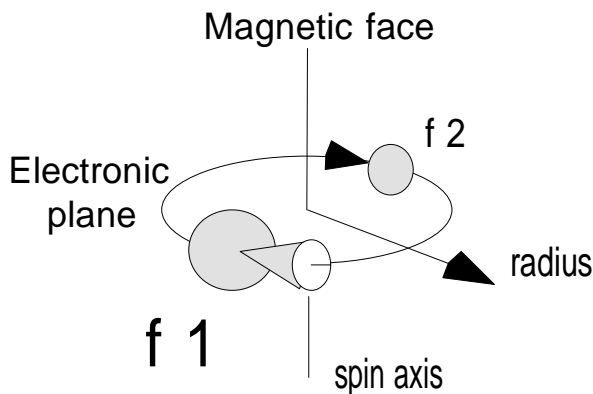


Fig. 6: A particle diagram of a two fundamental particle system.

Between these two relative maximum and minimums there is an infinite number of possible approaches. Natural laws of force, however, dictate that all things will move to a state of minimum pressure. It follows that all two fundamental particle systems will prefer to interact along the plane of their spin or electric field, where the pressure -albeit fluctuating- is a relative minimum. All other interactions between free systems are transient.

2.4. The Nature of Charge

Now every two fundamental particle system is identical. The only distinction is whether we observe it spinning clockwise or counterclockwise. In which case, its rotating field will push us either left or right, in a tangential manner while the inward flow moves us towards it. From another perspective, if two such systems interact, then there will be two relative interactions. At the closest point of contact between the two systems, if they are both spinning in the same direction, then the rotating fields of each will accelerate the opposing fundamentals in the same direction. If, however, the two systems are spinning in the same direction,

then at the closest point of contact their fields will be moving contrary to one another. In which case, they will repel one another.

It follows that the mechanism of attraction and repulsion is related to the spinning pressure fields of the two fundamental particle systems. In other words, the internal spinning pressure fields of these systems represent what we have come to know as charge. *If a two fundamental particle system spins internally in a counter clockwise manner, then it is negative in charge -an electron. If a two fundamental particle system spins internally in a clockwise manner, then it is positive in charge -a positron.* According to this model, the internal spin of an electron will always be the opposite of a positron-no uncertainty.

2.5. Non-local Effects

Again, it is important to understand that an electron is not only a particle that can collide with other systems in a classical manner, *but also the fields of pressure that it creates and which extend into the surrounding space.* In that regard, an electron is not only a particle but also a wave. This becomes increasingly important if we are to understand the phenomenon of the one electron at a time/ two slit experiments. When we shoot an electron at a barrier with two slits, its wave nature extends into the surrounding space, and actually passes through both slits, before the electron passes through either of the two slits. It follows that the electron's own field creates the necessary interference pattern of troughs and crests of pressure, which affects its motion once it passes through. Eventually, an interference pattern is built up over time on the detector.

2.6. Force as an Actuality

Scientists have struggled trying to figure out how a force might be mediated through an empty void. Their ideas, and in particular, the particle exchange mechanism is ridiculously flawed. For instance, if particle exchange were the mechanism for gravity, the earth would have to know where the moon was moving to, so that it could send its exchange particles ahead of the moon... The same would be true of all subatomic particles if mediated by exchange. In this model, force is instantaneous, because it exists as an actuality within the fabric of space, rather than existing as some inexplicable entity within substance separated by void. Defined in this manner, force is instantaneous, and does not rely on the speed of any intermediate.

3. The Protonic

3.1. Formation

If a neutrino collides with a positron, it will enter into a region of greater pressure, slow down, acquire a physical body, and become a fundamental particle. When this occurs, it has a surface area that can be acted upon by the strong inward force, allowing it to be captured. In order for a fundamental particle to acquire a stable orbit around an electronic system, it must orbit against the internal spin of the electronic body. If it orbits in the same direction it would be pushed by the internal spin of the positron, and pushed out of orbit. *An electron with a fundamental particle in orbit is an anti-proton, while a positron with a fundamental particle in orbit is a proton.*

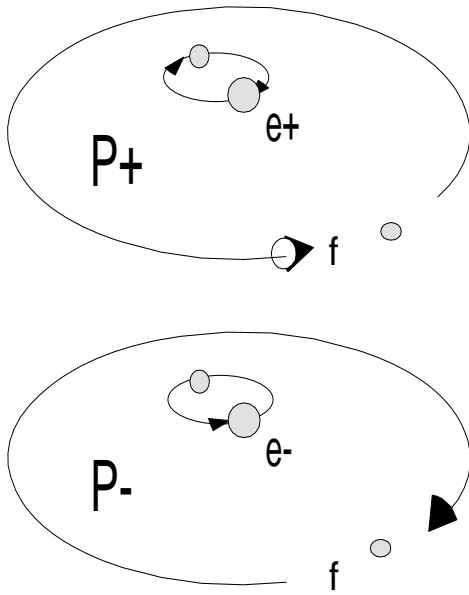


Fig. 7: A representation of the composite proton (top) and the anti-proton (bottom)

3.2. Relativity of Charge

The protonic systems are subject to the same relativity of charge as the electronic. It has the same magnetic axis, and fluctuating minimum of pressure along the plane of its spin, the electric field. Natural law dictates that the proton will also prefer to interact with other charged systems along the plane of the system's spin, within the electric field, where the pressure albeit fluctuating, is a relative minimum as compared with the polar magnetic field. This interaction will occur, simultaneously with the strong force.

3.3. An Elementary Particle

The proton represents another elementary level of particle structure, which is inherently stable. At speeds much less than the speed of light, speeds we are used to in the macroscopic realm, the fundamentals inside the proton all have a relatively fixed size, proportional to the speed with which they are spinning in that system. The proton is harder to move than the electron, because its fundamentals are smaller than the electrons, so there is less surface area for a known force to deflect.

4. The Neutronic

4.1. An isolated Neutron is Unstable

Classical science suggests that a proton and its anti-particle should annihilate one another to become energy. This model suggests that the two should come together to form a neutral particle. It is proposed that a neutron is composed of a proton and an antiproton spinning around one another via a strong force. This so-called 'elementary' particle is not entirely stable, a contradiction of sorts. Consider the following scenario, where the two spin clockwise.

The fundamental of the proton will be moving in the same direction as the internal spin of the P+P- pair -at the closest point of contact with the antiproton. It follows that its relative speed will be greater during this phase of its orbit around the proton, which means it will become smaller. Any chance that it might sling shot

and escape its orbit is negligible, because as it turns and skims the outside of the system, it moves against the internal motion of the system, gets larger and is pulled back into orbit. In contrast, as the fundamental of the antiproton skims the outer surface of the particle system, it adds the speed of the spinning system to its own in a relative manner, and because it now has less surface area and is moving faster, it has the potential to escape the inward strong flow of aether.

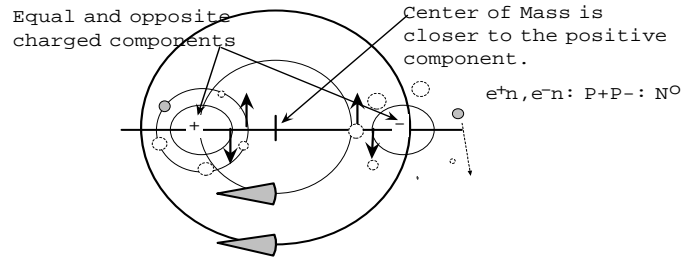


Fig. 8: The neutron, composed of a proton and antiproton.

The problem is that neutrons are subject to a statistical decay, so I won't suggest that it decays on its own, rather, a secondary cause must be required to actually 'cause' it to decay. It may be that the neutron will remain stable if left unperturbed. Perhaps all that is needed is another small external force to push the antiproton's fundamental out of its orbit. I would suspect that a collision, or the passing of another particle's field is required. This, at least, would explain why the neutron's decay is statistical. Of course, the neutron is stable in the atomic environment. Again, there must be a secondary cause that shields it in some manner from external influences, or which counteracts the antiproton's ability to escape. As a whole, the neutron is not symmetrical, and with respect to the oscillating sizes of the fundamental components, the neutron should precess in a gyroscopic manner.

4.2. The Neutron's Decay

In this model the neutron's decay violates classical laws, because it involves the hidden decay of an antiproton, a baryon. Although a neutron should always decay into a proton, electron, and neutrino, observing this would be complicated by the participation of the colliding agents that cause the decay. Statistically speaking, if the neutron decays by collision, then you could show that free neutrons decay faster than their empirically determined half-life, when subjected to a torrent of particles, or neutrinos.

4.3. The Double Mass Dilemma

Given its neutrality, the neutron's electromagnetic mass cannot be determined directly because it does not leave any tracks in a bubble chamber. Given the neutron's composite nature, the majority of times, only one component will be involved in a collision. In other words, the mass of the neutron will appear to be very similar to that of a proton, with an additional amount of added mass to adjust for the hidden internal spin of the incident component. Consider that a collision by the proton component, which is stable, might be followed by a collision with the antiproton component, which then leads to decay. If and when a double hit occurs, we might see a double mass, close to the mass of two protons. Now in the past, I would expect that such a finding

would be disregarded, out of hand, and dismissed as a double hit by two separate neutrons. Statistically speaking, however, the chances of a double hit should be relatively small, and with today's expertise, it should be possible to ensure that only one neutron is involved at a time, making this type of occurrence improbable. The problem is that I expect double hits to still register more frequently than anyone might expect, which is evidence for my claim.

4.4. Atomic Structure

Regardless of the strong force, protons, neutrons, and electrons should still interact along the plane of their electric fields. The mechanics of this model suggest that it is unlikely that protons and neutrons mix randomly within the nucleus. In general, the strong force of the neutron should be twice that of a proton alone, so I would expect that neutrons would pull one another closer together, and accumulate and organize in the center of the nucleus. Neutrons should subject a proton to an oscillation, as the neutron spins. Repulsive protons should remain as far apart as possible, and the same is true of electrons. Protons and electrons, however, attract one another and should interact on a one to one basis, forming 'nuclear hydrogen', which diminishes the repulsion of each. Nuclear Hydrogen should have the ability to form nuclear covalent bonds, nuclear H2, which we identify as lone pairs of electrons. The structure of the nucleus should be subject to electrodynamics, where symmetry is the key to stability.

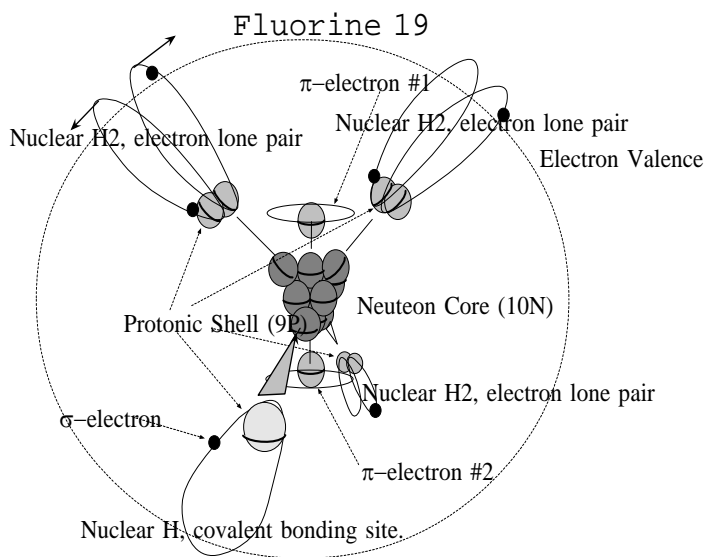


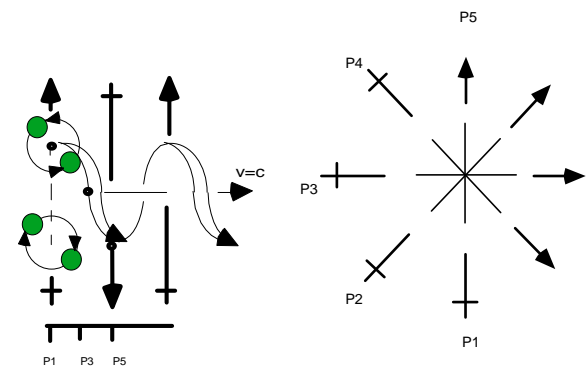
Fig. 9: Example: The nuclear shell structure of a top isomer of F19.

The distribution and localization of electrons, and lone pairs of electrons, should be the direct result of their interaction with precisely arranged protons, interacting with a highly organized 'neutron core'. Covalent bonds should occur between nuclear hydrogen of two different nuclei. The only difference is that only one electron occupies the space between each protonic ligand of the bond at any given time. If electrons orbit protonic ligands of a structured nucleus, the electron orbits of all nuclei should be Bohr-like, so Bohr's theory will need to be revisited.

5. The Photonic

5.1. Left & Right Circularly Polarized photons

In this model, if an electron and a positron interact, at the closest point of contact, the two electronic bodies spin in the same direction. It follows that the field of one system pushes the other, and visa versa. The photonic system will accelerate until all of the component fundamentals have basically no connected body left that the field of either electronic component is able to push. This corresponds to the speed of light. Now, while the two electronic systems align and propagate along the plane of their spin, they also spin along their magnetic axis. Structurally, this system is a polar entity that spins in a right or left helix along its line of propagation. This system has all of the physical attributes of a photon. *An electron/positron pair is a photon.*



A. Shifting E Polarity side view. B. E-Rotation, head on view.

Fig. 10: A depiction of a right circularly polarized photon.

Plane polarized light is composed of an equal amount of left and right circularly polarized light, and this model shows that one is composed of left circularly polarized photons, while the other is composed of right circularly polarized photons. As the photons spin, their electric and magnetic fields spin. The net vectors of these two contributions overlap to give the characteristic wave nature of plane polarized light. From the classical perspective, the **photon** is a contradiction. Here I am speaking about wave-particle duality. You see, the photon can be described rather well as a wave moving through some medium, and this is why so many people have argued for the existence of an 'ether', without any notion of how one actually exists, or how to prove it.

5.2. The Transfer of Energy

Classical physics suggests that an electron and positron annihilate and become energy- a discrete package of mysterious energy that they call a photon. The problem is that it has been proven beyond a reasonable doubt that the photon is a particle, because it has been shown that a photon is capable of physically transferring energy during a collision. The problem is that a photon's electromagnetic attributes, which it creates and which extend into the fabric of space, are best described by wave mechanics while it propagates, but it behaves as a particle as it collides. On the subatomic level, the collision of a photon with a particle slows the photon down, at which time the increased pressure will cause its internal components to acquire a more physical body. When this occurs, its spinning parts can transfer any portion of its hidden kinetic energy that is stored in the magnetic

spin of the system, with the particle that it collided with. In this respect, the photon is not unlike a packet of hidden kinetic energy, which is still just mechanical energy.

5.3. The Photon is a Particle

The question is whether a photon is a virtual particle until it collides with another particle? One has to consider the relative motions of the fundamental components, relative to the direction of propagation of the system. In theory, the fundamentals components within the electronic systems of the photon will have a maximum and minimum velocity. At one extreme, a fundamental will be moving in a direction that is opposite to c , at which time it will have a particle nature. At the other extreme, a fundamental will move in the same direction as c , at which time it will be completely virtual in nature, a neutrino.

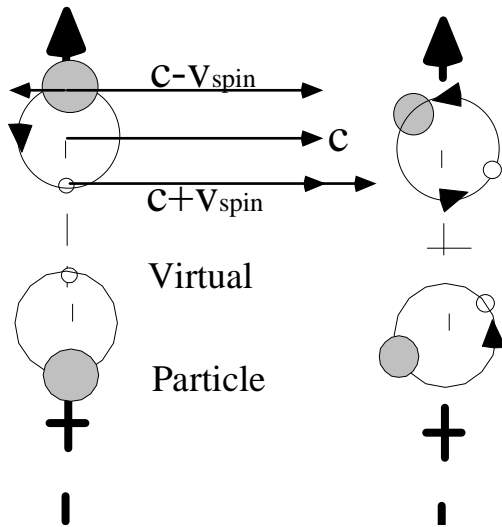


Fig. 11: The relative velocity of the photon's fundamental components.

This model suggests that as the electronic bodies spin, their fundamental components oscillate between particle and virtual states. It follows that the photon is a particle to a very small degree at all times.

5.4. The Spectrum of Light

At one extreme, if the magnetic spin of a photon is too slow, the electronic components are too far apart. At the other extreme, if the spin is too fast, the two electronic components will separate. So there is a limit to how much energy a photon can have, and a domain to the spectrum of light. Imagine if this limitation did not exist. I mean, what explanation did classical scientists use to explain why there weren't extremely energetic, devastating packets of energy in existence? The end result is that the energy of light has two boundaries, and that the spectrum of light is limited between low and high internal energy.

5.5. The Speed of Light

If the photon is a composite body, then in theory its components travel faster than the propagation of light. Certainly, this model suggests that the neutrino should be able to travel faster than the speed of light, at least in the direction of its propagation. One difficulty is that the pressure in the fabric of space influences this speed, so we need to consider our proximity to the sun, the time of year, that we measure its speed.. If the magnetic spin,

which is perpendicular to propagation, also affects the size of the photon's fundamentals, then the speed of light is subject to a domain. The difficulty is that the speed of light would already incorporate a degree of this hidden contribution. The only notable difference should occur at high frequencies.

5.6. Non locality

The photon's inherent attributes have created an enormous amount of confusion for classical scientists. For instance, if you shoot one photon at a time at two slits, and even though the photon passes through only one slit at a time, an interference pattern is created, built up over time, as we shoot photon after photon through one slit or the other. This model provides an easy enough solution. Basically, the photon's waves of pressure pass through both slits before it even passes through one. In that sense, the interference pattern is created in the fabric of space behind the two-slit barrier, before the photon even passes through. Once it does, it will travel at random along the paths of least resistance, where the waves of pressure do not overlap, creating an interference pattern over time.

5.7. $E \neq mc^2$

The idea that an electron and positron can annihilate to become a mysterious package of energy, contradicts the established fact that a photon is a particle. You can't have it both ways. Particles cannot annihilate into energy and yet remain particles. People fail to understand that Einstein's thought experiments are conjecture. Don't get me wrong -concept making is an integral part of the human's desire to understand a phenomenon. Imagination is a necessary tool. The problem is that if you don't know what is going on, you don't know what boundaries to set, to guarantee that your thought experiments remain valid. One out of a million times, your idea might be fortuitous, and actually explain the phenomenon.

I don't have the time or energy to list the number of assumptions that Einstein makes in his 'thought experiments'. The difficulty is that Einstein's conjectures yield mathematical correlations that serve as temporary patches for our inability to conserve Newtonian concepts in the subatomic realm. In that respect, it stands as the accepted theory, until it is replaced. Let me reiterate, you can disprove certain aspects of his work, and from a philosophical perspective we can show all of the contradictions of his model, but from a scientific perspective, his work will remain in place until we find an alternative solution that works better.

5.8. Zeno's Paradox

A reasonable thinker would accept an argument that 'if this is true', then this is true, and this is true... that is a logical process. This approach often leads to predictions that can be tested, and verified. However, a reasonable man, would certainly question the first 'if this is true', if it led to a whole bunch of impossible conclusions, that contradicted the very fabric of their own reality.

Let me give you an example of how thought experiments are supposed to work. In ancient times, there were two schools of thought. Anaxagoras proposed that substance was composed of infinitely many parts, and that it could be divided endlessly. The public was allowed to see his theory, and it was widely accepted. Zeno, in contrast, believed that substance was composed of finite

parts -that it could only be divided up to a certain point. Unfortunately, Zeno belonged to a secretive group that guarded their metaphysical model like a cult. Subsequently, Zeno couldn't just say "this is how it works". Instead, he created an analogy to serve as an argument against Anaxagoras' work. He suggested that if space is infinitely divisible, then an arrow would travel half a distance, and then another half, and so forth, forever, so the arrow would never reach its target. Now this was supposed to show, to a reasonable thinker, that the idea that substance was infinitely divisible was ridiculous. Unfortunately, Zeno was taken out of context and has been written into history as an imbecile, and ridiculed as actually believing that this was true -even to this day. In retrospect, this is basically what modern science believes...

5.9. A Modern Paradox:

Intuition suggests that if we are in a moving car, and if we shoot a beam of light from the car traveling at the speed of light, that an observer outside of the car would register a speed of light faster by the speed of the car. This of course is not the case. It stands to reason, therefore that the speed of light in the car is less by the speed of the car, except if the car moves a volume of aether with it. In which case, there may be a drag effect at the windshield. The problem here is that the maximum speed of light is determined 'by' the aether. The cars move through the aether, and in the gravitational landscape, aether moves into the earth, not side to side, so there is no wind, no drift. It follows that moving perpendicular to the flow, no matter how fast the car goes, light will still not exceed its speed with respect to the waterfall of aether. A photon, created from a platform in motion through the gravitational flow, cannot exceed its maximum speed, but it might register a change in its internal energy.

Einstein would have us believe that the speed of light is the same, regardless of where we observe it. According to this definition, if we shoot an arrow of light out of the car, we will see it leave the car, even if the car itself is traveling at the speed of light. Of course, if we hold fast to the idea that the speed of light is a constant in all inertial reference frames, and if two cars are traveling at the speed of light towards one another, it follows that relative to an observer outside of the cars, that the light will never leave the cars, and that two cars will crash into one another before the light ever leaves either car. Which is a Zeno paradox to say the least.

6. Conclusion

For those of you who do not realize, you have just been indoctrinated into the realm of metaphysics. Ironically, metaphysics means 'after physics', but in application it should be defined as 'before physics'. Metaphysics attempts to define the nature of substantial bodies, and then attempts to establish a metaphysical

blueprint, a mechanical model, or ontology that defines how natural bodies, within the rules and principles of the model, interact.

This paper is only an orientation, an introduction, to "The Fundamental Theory", in its complete form. All I have done thus far is to define the structure and inherent nature of the pieces of the puzzle. It is like creating the pieces of lego that a child plays with, except in this case, it defines the elementary particles of our substantial existence. It is a simple matter, to put the pieces together, to see how they will combine, and therein to evaluate whether they will accurately mimic the reality of the realms we know exist.

The success of the model is measured in its ability to reflect the nature of the world that we know by experience and its ability to explain the knowledge that we know to exist. More importantly, if it is successful, it has the ability to explain the complexities of a complicated phenomenon. A successful model also has the ability to predict new findings that scientists can look for and verify. The difference between this model, and many of the models that classical science is accustomed to, is that it begins with a foundation. It only has one constant, Matter. It begins with first principles that are supposed to lead to a unified description of all levels of substantial complexity.

I believe that I have provided some insight into the complexities of the subatomic realm, especially in regards to the nature of Matter, the mechanisms of force, action at a distance, wave particle duality, non local phenomenon, and the speed of light. I have also explained how it is possible for neutrinos to travel faster than light, and how particle and virtual states of substance exist. The challenge is for science to measure and weigh the accuracy of the model.

The first step is to verify whether or not the neutron is composed of a proton/antiproton pair. It also needs to take a closer look at the drag effects of aether, according to the aether landscape described. In this model, aether moves into the earth. How fast does an object need to move towards the earth before it is no longer accelerated by the aether? In other words, how fast is the aether into the earth?

At this point, I have defined all of the elementary particles, all of the stable participants of the subatomic realm, and thus the atom. The next step will be to simply document how the pieces fit together, to build the nuclei, and then to determine if there is a correlation between the structured nuclei and the known facts. Of course, I would like to accomplish more and prove that the nuclei are structured.

While there may be some philosophical merit to this model, to change, correct, or possibly overthrow the science of the subatomic realm is another, overwhelming task, perhaps later... My hope is that the years I have put into this model, will serve as a guide that puts the various broken branches of science into proper perspective, with one or two necessary corrections...